

Innovation in Arabic Online Newsrooms: A Comparative Study of the Social Shaping of
Multimedia Adoption in *Aljazeera Net*, *Almassae* and *Almasry Alyoum* in the Context of
the Arab Spring.

Nesrine Khaled Abdel-Sattar

Mansfield College

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To my mother, the light guiding my path.

And to the brave Egyptians who sparked the 25 January 2011 revolution.

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Abstract

This study focuses on the factors shaping innovation in online newsrooms in three nations of the Arab World, with particular interest in the adoption of multimedia news innovations. Applying theoretical perspectives from the social shaping of technology and the diffusion of innovation literature, this study sought to identify the key factors shaping the innovation process. Field studies were based in three Arabic newsrooms: *Aljazeera* Net in Qatar, *Almasry Alyoum* in Egypt, and *Almassae* in Morocco. The case studies are grounded in two weeks of participant-observation field research within each online newsroom, along with over 100 in-depth interviews with those involved in the production of online news, and online archival reviews of the three news portals since their inception. Field research began with participant observation at *Aljazeera* in 2010, prior to the uprisings of the Arab Spring, and continued through early 2013. The political context of each newsroom during the field research became a major aspect of the innovation process of each case study. The thesis reinforces a wide range of social, economic, and organizational factors in the adoption and adaptation of multimedia technologies in the newsrooms studied, supporting earlier research on newsroom innovation across other regions of the world. For example, conceptions about ‘ideal’ industry multimedia models for the modern newsroom were important in each case. However, in the political context of events related to the Arab Spring, the overriding importance of the larger political context emerged in each case. The significance of this observation suggests that research on news organizations cannot take the political context for granted and should more explicitly embed it in discussion of the social shaping of innovation, even under more stable and liberal political conditions. There is a relative lack of systematic empirical research on Arabic newsrooms among studies of news innovation. Looking at the political context of emergent or weak democracies and their influence on modern multimedia newsrooms especially during crisis events, therefore, can contribute to the development of theory and research in Western democracies; and reintroduce politics into theories of innovation within modern newsrooms. This study suggests that future scholarship brings politics into the study of the social shaping of newsroom innovation without losing the many significant advances of existing research in more liberal democratic Western contexts of the multimedia newsroom.

Preface

Before delving into the findings, it is important to record the journey of my research. The Arab Spring erupted six months after the field study commenced. This impacted the focus of the study as dramatically as my personal experience as one ‘actor’ in the research process. Being Egyptian, it was very difficult to detach myself from the events. My involvement in the political events since 25 January 2011 – whether through attending protests or joining political campaigns in my own country – has impacted me emotionally and intellectually. It also created immense pressure. Even when I wanted to unplug from the news, it was difficult, given my research was about news portals. The very news websites that I followed for my cases sometimes presented content that disturbed, angered, or confused me. Hence, I was constantly worried and aware of how this context and my personal political biases could impact the objectivity of my research. Although I did my best to ensure they are not reflected in the analysis, I acknowledge that it is impossible to exclude subjectivity from any research. Three years later, I am even more convinced that there is no such thing as ‘absolute objectivity’ in media or in research. The contextuality of the researcher – like the news agents – affects the outcome of their work. I do hope, however, that my contextuality did not obstruct the logic of my analysis.

Moreover, the pace of unfolding political events and related media developments was often faster than the pace of research. I was constantly racing to connect the quickly evolving events and how they shaped the newsrooms’ decisions and innovation processes. At times, it was difficult to draw a line where the empirical ‘analysis’ should stop, as events consecutively depended upon one another. Because of that, the empirical data was best limited to the last conducted interview, although the wider political context was considered until August 2013, when the ‘second revolution’ had taken place in Egypt.

1 Chapter One: Introduction

'The place of media in society, and especially in political life, depends on the roles of the political game at a given place and time.' (Michael Schudson, 2003, p. 152).

1.1 Introduction

This study focuses on the particular political, economic, cultural, and organisational factors that shape the innovation visions and choices news organisations make when they produce novel news services and content online. It addresses one particular aspect concerning the implications of the Internet on the quality and diversity of news in the digital age: the multimedia production.

The rapid and continuing set of innovations surrounding the Internet and related information and communication technologies has been one of the most important technological and social developments of the twenty-first century. Among the most significant societal implications of this wave of innovations have been changes in the production and consumption of news.

In this context, the newsroom has been one central locus of activity tied to the application of the Internet and related communication and information technologies in producing, delivering, and consuming news. Leading news organisations are constantly competing to create news websites with innovative and attractive formats in their efforts to adapt to technological trends and the changing habits of their audiences. Audiences, in turn, are increasingly going onto the Internet to learn about news and information, and to share their own content (which ultimately feeds into the newsrooms). At the same time, new technologies are enabling the distribution of news across multiple platforms that are converging in some ways and remaining distinctive in others.

The increasing centrality of online news has led communication researchers to study this phenomenon, and the implications of Internet on the production and consumption of news. However, research is limited, leaving a number of unanswered questions. For instance, it is not evident how closer and instant online traffic data are shaping news organisations conceptions about users and news production online? What other factors are driving the adoption and use of multimedia technology in the online newsrooms? Research has also seldom addressed the relationship between the political context and the technology of the newsroom, including the adoption of multimedia innovations. Will press restrictions or political interference in less liberal democratic states undermine the role of the Internet in news production, distribution, and consumption? How would news innovation evolve within restricted media systems?

Answering these questions could help us understand the broader implications the Internet and multimedia innovations present for the construction of news, as well as provide insights regarding the political constraints on online news. Moreover, while these news transformations are worldwide, audiences are culturally diverse. It is therefore of particular value to examine the role of multimedia innovations in newsrooms outside the liberal democratic states of the West, where conceptions of the new news media audience and the reality of user practices could be different.

Throughout this thesis, the term ‘innovation’ refers to innovation in ‘multimedia’ production, and therefore, the terms are used almost interchangeably but in this limited way. While there are differences between advances in news production particular to multimedia, and the larger notion of technological innovation, the boundaries between the content, and the artefacts and processes behind its production, distribution and presentation, are increasingly blurred in the online world. This is particularly true with ‘multimedia’ news production, which (as will be discussed at length later) entails several

layers of convergences at the production, presentation and distribution levels of content. This is a theme that arose from the research underpinning this study, and the larger thesis.

This study is interested in two particular aspects of online news: the social dynamics of online newsrooms, particularly with regard to the adoption practices of multimedia; and the external political effects on the production of news in the Arab World, a setting substantially different from the mainstream newsrooms of the Western media. It will therefore examine the social and organisational processes of multimedia adoption that prevail in the online newsrooms serving Arabic language communities. In doing so, it is necessary to bring the political context of the Arab World into the study, given its dramatic effect on the nature and pace of innovation, as the case studies will illustrate. In this way, the study describes patterns of innovation in these newsrooms' environments generally, and the way their innovation cycles have responded to events such as the Arab Spring in particular.

The study draws from a number of organisational and social studies that attempted to conceptualise technological innovation and the wider changes in multimedia newsrooms. In particular, it builds on studies of the Social Shaping of Technology (SST) as a framework for capturing the many factors shaping newsroom innovations. Using Rogers' (2003) Diffusion of Innovation (DoI) construct as a comparative model, the study will also identify the processes of adoption and adaptation to multimedia technologies, as well as the key internal and external actors that shape those processes. Each newsroom case study also incorporates an embedded case study that examines how the political crisis during the Arab Spring shaped the technological affordances, decisions, and implementations of multimedia innovation within the respective Arab newsrooms.

The research is based on three case studies of Arabic online newsrooms: *Almassae* newspaper in Morocco; *Almasry Alyoum* newspaper in Egypt; and *Aljazeera* Net in Qatar. The case studies are each grounded in participant-observation within the online newsrooms during the period from June 2010 to June 2012. This field research enabled in-depth interviews to be conducted with those involved in the production of online news in each of the news portals. The case studies provide rich detail about the dynamics of newsroom innovations and the factors that shape the implementation of multimedia in the production of online news stories.

The case studies provide a contrast to related research on the Western news media, where the political context might play a different role in shaping the course of decision-making in the newsroom. One aim of this study is to begin to address the scarcity of research on Arabic online newsrooms and audiences, and to fill this gap by studying newsrooms in quasi-democratic countries, which can be dramatically affected by political events.

This introductory chapter will outline the research problem, the research questions, and the approach guiding this thesis, as well as, the wider political and media contexts of the cases studied. The first section will develop the problem that led to the research questions and the theoretical perspectives drawn from to address them in the Arabic context. This is followed by a brief account of multimedia innovations. The succeeding sections discuss crisis in relation to news generally, and the particular Arab spring uprisings that erupted since 2011, which contextualised the three cases of the study. The wider Arab World and Arab media are then examined to provide a backdrop to all of the cases. Lastly, the chapter presents an outline of the structure of the thesis chapters to follow.

1.2 Problem and Research Questions

This study was prompted by the substantially increased prominence being given to multimedia – or the combination of text, still and moving images, audio, and computer animation in the production of editorial content – by online news providers (Boczkowski, 2004a; Sundar, 2000; Hoogeveen, 1997), and the parallel increase of multimedia consumption, particularly video, by users on the Internet. In Britain, for example, the BBC News website has been hosting ‘News in Video’ and ‘News in Audio’ since its launch in 1997 (Hermida & Thurman, 2007). Since then, the BBC has increasingly been integrating different media, particularly video streams, on its website. Since 2000, *the Guardian* website has offered audio and ‘interactive guides’ that combine multiple media in clickable Flash-movie styles (Guardian Unlimited, 2000), and in 2007, invested 15 million pounds (Myton, 2007) in all its websites, in part so they could ‘play videos off the page’ (Butterworth, 2007). *The Times*, *The Mirror*, *The Sun* and *The Telegraph* have joined this growing trend of newspapers to carry video content on their websites (Reevell, 2007).

There has also been an increase in social journalism and citizenship media that is propelling media organisations to integrate user content in their publishing and streamline news from multiple social networks. For instance, CNN introduced the iReport tool to its portal, using citizen reports to cover the Iranian elections in 2009 (Palmer, 2012). Likewise, other studies report the emergence of similar models of ‘social journalism’ in American news organisations (Poepsel, 2011).

Similar trends have been evident in print and broadcast organisations worldwide that are turning their investments in technology, staffing, and training toward the purpose of giving more prominence to multimedia (Aquino et al, 2002; Deuze, 2004; Thurman & Lupton, 2008). A case in point is the Arab World, where an increasing number of news

sites, even those maintained by originally print media outlets, are shifting toward multimedia, including offering video news. *The Gulf News* was among the first to offer video news on its website. Lebanon's An-Nahar daily is attempting to expand into online TV with a branded channel on YouTube (Ghannam, 2011). Similarly, *Aljazeera* Arabic news channel has revamped its website four times since its launch in 2001, giving more prominence each time to multimodal presentation, especially emphasizing video. Similarly, a growing number of Arabic public and private newspapers are incorporating multimedia in their attempts to move to online versions of their content.

Simultaneously, video, still picture, and other multimedia websites – such as YouTube, Hulu, Pinterest, Instagram, and Flickr – are witnessing exponential growth in their consumption. YouTube website leads the online video market with a 40% share of all video consumption (nearly two billion video views per day in 2010) (LeClaire, 2010). By February 2011, there were an estimated 92 billion page views and nearly three billion hours spent on YouTube in a month – the equivalent of over 325,000 years (Elliott, 2011). Citizen and social journalism is equally on the rise with Twitter reaching over 500 million accounts, and Facebook reaching over one billion active users by the end of 2012. (Wikipedia, 2012).

The increased use of multimedia and portable touch technologies including smartphones, such as iPhone and iMate, and computer tablets, such as iPad, promise to usher in an era where the consumption and co-production of multimedia is brought to a new level. The Web landscape that once required Internet users to visit specific destinations for content has evolved into one in which content is increasingly being 'converged' – in content and

format – and pushed directly to consumers’ phones or tablet PCs via widgets,¹ applications, and distributed video players. Similarly, exponential growth of social media has pushed newsrooms to integrate user content into their production of news.

The growth of multimedia consumption and production has coincided with a number of national and global citizen movements, which have used the Internet in mobilising and exchanging news about political events. They began in late 2010 with the uprisings that erupted in Tunisia and spread across the Arab World; followed by Occupy Wall Street and similar movements in Spain, Greece, and the UK. Such movements have galvanised media attention and their organisers have contributed to the production of news content.

Moreover, political movements in countries such as Egypt, Syria, and Morocco, have produced a backlash from the state on both media organisations and online activists. The Internet has been blocked, bloggers have been jailed, and media organisations covering these news crises have been attacked, their portals hacked, and their bureaus shut down. All this has prompted questions about whether the Internet can truly empower the producers and consumers of news in the digital age.

This phenomenon heralded research about the dynamics and role the Internet can play in shaping online news content. Much of the research has been quantitative, and often based on technologically deterministic assumptions. For instance, most recent studies on the Arab Spring focused on network analyses of Facebook and Twitter content, despite the fact that most activity involved in the revolutions was not online, but led by mainstream media, particularly as TV has remained the main news source in the Arab World (Sakr, 2012, 2013). This calls for more in-depth and ethnographic empirical scholarship, both about the causes and consequences of such political events on news innovation and the

¹ Widgets are small programs that can easily be placed on a website, blog, or personalised start page. A widget can be designed for an advertisement, a voting poll, a weather forecast, a news headline, or a crossword puzzle. They can be utilised to provide a customisable experience for readers.

production of news content online. More importantly, it raises a number of questions particular to mainstream news. What technological and organisational changes does mainstream news need to make in order to adapt to the emerging roles of networked citizens and the abundance of news online? What news innovations would survive this new media environment? And what decisions must news organisations take in order to survive in the digital age?

This study attempts to answer aspects of these questions, using a constructivist approach to media innovation, by looking into the particular political, economic, cultural, and organisational factors that shape the newsrooms' visions and choices pertaining to multimedia innovation. By discerning the internal and external environment shaping multimedia news production in times of crisis, the study aims to uncover the broad social dynamics of contemporary innovations in news production.

The overarching research question thus anchoring this research is: what social factors shape multimedia innovations in Arabic newsrooms? The study therefore investigates three key research questions related to this theme:

Research Question 1: What are the key patterns and processes of multimedia innovation adoption in Arabic online newsrooms?

In this aspect, the study would map the particular adoption processes and strategies that emerged in the newsrooms' implementation and adaptation of multimedia.

Research Question 2: What are the most significant social factors shaping multimedia innovations in Arabic newsrooms?

The social factors examined will include elements both internal and external to the newsrooms, such as the political, economic, historic, cultural, and organisational factors that shape both the adoption processes and the technological artifacts adopted.

Research Question 3: What broader implications do these innovations present for understanding the practice of journalism and its consequences for the construction of information on the web?

Through a comparative case study approach, the study will look at three newsrooms in three Arabic states. For each newsroom, an embedded case study is developed to look in more depth at how the dynamics of the larger political context during the Arab Spring played out in the setting of the online newsrooms.

1.3 Multimedia Innovations in the Newsroom

Rogers and Shoemaker's classic work defines *innovation* as:

an idea, practice, or object perceived as new by an individual. As such, it matters little, whether or not an idea is 'objectively' new as measured by the lapse of time since its first use or discovery. It is perceived or objective newness of the idea for the individual that determines his reaction to it. If the idea seems new to the individual, it is an innovation. (1971: 19)

This epistemological account – that an *innovation* exists only if an individual or group recognises it as *new* – could be applied to the study of innovation itself. For instance, most Western theorists studying media innovation have neglected innovations that preceded the industrial revolution (Defleur, 2010: 232) – whether out of an unconscious tendency or a perception of the supremacy of the industrial paradigm. However, media innovations could effectively be traced back to as early as the Sumerian (3500 B.C.) and Ancient Hieroglyphic (3300 B.C.) languages. Similarly, the diffusion of media artifacts to the rest of the world, such as the ancient Egyptian papyrus paper of the 4th millennium B.C. and Chinese paper in the 2nd century B.C., should perhaps be considered the most influential in media history.

Nevertheless, the modern study of media innovations normally begins with the telegraph (Boczkowski, 2001; Nguyen, 2007) in looking at successive innovation in media, communication, and information technologies. The study of innovation in communication has been largely anchored in the West and has a Western bias, with a dearth of research on Eastern and Arab contributions to media innovation. This is particularly the case in the study of newsrooms, reflecting Western hegemony in media scholarship.

Multimedia², in the general sense, are regarded as all types of content that cannot be produced in an analogue paper (Karlsson & Clerwall, 2012; Singer, 2004; Steensen, 2011). This research defines ‘multimedia innovation’ as any technical, editorial, or design development that shapes the production of online news. Throughout the following chapters, multimedia ‘technology’ is also used to refer to any system, software application, or artifact appropriated or developed by the news organisation in its process of producing content for the Web, and for other digital platforms (such as phone or tablet devices). MacKenzie and Wajcman (1999) define technology as ‘knowledge’ as well as ‘artifacts’. Likewise, in this thesis, multimedia technology refers to the systems of knowledge tied to the use of these artifacts in news production, distribution, and consumption, beyond the mere material technological artifact. A more detailed typology of multimedia innovation is provided in the methods chapter.

The focus of this study is on mainstream journalism and the newsroom as the hub of online news production. As a way of charting the larger lines of territory which separate it from any other type of journalism, this study defines ‘mainstream journalism’ as all news making institutions that originate from on-the-ground entities – with established legal, professional, and economic presence – and that produce and distribute news in the media

² A more detailed description and typology of multimedia follows in the literature review and methods chapters.

industry. It is acknowledged that, since the inception of digitisation and the Internet, the boundaries between what is considered ‘mainstream’ and what is not are becoming quite blurred. The growth of citizen journalism, the user-generated content being increasingly pushed within mainstream media, and the later boost of social media and micro-journalism, make it ever more difficult for social scientists to confidently classify journalism. As beginning from a vantage point is inescapable, the study will, thus, attempt to primarily focus on mainstream journalism, while entertaining some occasional boundary-crossing when deemed necessary.

1.4 Politics, Crisis and the Newsroom

Media researchers agree that media must be understood in light of the political and social contexts within which they operate. For instance, press regulations, state and market models of media funding and censorship, partisan systems, and the relationships between political figures and legislative bodies, all dictate the functions of media and their capacity to innovate. Drawing from American and European media systems, Schudson argues that media, the political culture, and the political system of a society are strongly intertwined. He contends that there exists a range of changes in government, media, the private sector, and the broad political culture that interact to create a system in which the role of the media is central – ‘not supreme, not paramount – but indispensable’ (Schudson, 2011:150). Examining the relationship between the media, and the political system that encompasses it, is thus central to the understanding of how news innovation evolves.

Moreover, crisis news events bring further complications to this nexus. On one hand, mediating crises – or the coverage of man-made conflicts or natural disasters, or what some scholars call ‘event-driven’ news (Lawrence, 2000: 9; Livingston & Bennett, 2003) – often places extraordinary pressure on newsrooms. It disrupts their usual institutional

staging and routines, and challenges their human and technological resources. On the other, crisis events – especially those man-made – can disrupt the political status quo, or drive innovation tactics in newsrooms (Palmer, 2012; Taylor & Perry, 2005).

Applying the notion of ‘crisis-news’ to the Arab World, times of political upheavals have changed the dynamics of politics and media in the region. As Noha Mellor argues, crises ‘influenced development plans in the region and the intensification, or conversely the downplaying, of Arab nationalist discourse’ (Mellor, 2011a: 7). Crisis has also shifted news consumption and production in the region. For instance, during the civil wars in Lebanon (1975-1985), the Gulf war (1991), or the Iraq War (2003), news circulation soared (McCarthy et al., 2009, 2007), while new Pan-Arab media such as *Aljazeera* and *Alarabiya* thrived. The present study underscores the general theme of ‘crisis-news,’ finding important interactions between the media and politics extending all the way into the newsroom. It tackles one particular crisis-news event: the Arab Spring.

1.5 The Arab Spring (2011-2013)

The Arab Spring, a term first coined by Marc Lynch in 2011 (Lynch, 2011), was a series of uprisings that had started by end of December 2010 in Tunisia, and spiralled into Egypt, Libya, Syria, Bahrain, Jordan, Morocco, and a number of other Arab countries. The Arab media – whether state-owned, private or Pan-Arab – played a large role in these events; they largely shaped and were shaped by the uprisings (Howard & Hussain, 2013; Sakr, 2013). Hussain and Howard provide a useful account of the media history of these events, complemented by a mapping of the scale of protests in each of the Arab nations and their major political outcomes (2013: 6–9).

In Egypt, mass movements against police oppression, planned on 25 January 2011,³ picked up greater momentum after the Tunisian revolution toppled President Zine El Abidine Ben Ali on 14 January. For 18 days, antagonism over state brutality and oppression – both online and in the streets – escalated popular demand to overthrow the regime, and led to the toppling of Egyptian President Mohamed Hosni Mubarak on 11 February 2011. Following these events, similar mass protests erupted in Morocco on 20 February 2011 and culminated in constitutional reform in June of the same year.

The Arab Spring uprisings originated long before 2011 and their end is indefinite. Demands for ‘Bread, Freedom, and Social Equality,’⁴ and frustration over state corruption began as early as 2005. Similarly, the scope and period of what can be called ‘the Arab Spring’ is still unfolding at the time of this study, and its political and social ambitions are far from realised. For instance, in Egypt, the revolution led to two regime changes and what was known as a ‘second revolution’ on 30 June 2013 – which toppled newly-elected President Mohamed Morsi. The research therefore chooses not to focus on the wider political ramifications of these events or the resulting influence on the wider Arab media. Such a pursuit would be suited for future wider cross-national and longitudinal research endeavours.

Instead, this research focuses on the particular events surrounding the Egyptian and Moroccan uprisings in relation to the three studied newsrooms during the period from January 2011 to June 2013. It examines how these uprisings and the news crises resulting from them, have shaped the dynamics of news production and the processes of innovation in these newsrooms. Annex 1 shows a timeline of events (from 2010 to 2013) to help

³ 25 January is the national police day of Egypt, and mobilisation for demonstrations on that day had started before the Tunisian revolution.

⁴ This is the Motto of the Egyptian revolution.

trace the dynamics of social and organizational events unfolding during the period of empirical study.

1.6 The Arab World and the Arab Media

The Arab World has particular cultural, political, and historical characteristics that differentiate it from the rest of the world. There are certainly regional commonalities, as well as country specificities to the Arab media. The constant negotiation between the national political, cultural, and social systems within each Arab country, and the wider Pan-Arab regional historical and political dynamics make Arab media systems a unique model.

In general, Arabs are generally defined as those 'who speak the Arabic language, identify themselves as "Arabs" and are nationals or residents of member countries of the League of Arab States.' (Hopkins & Ibrahim, 2003: 2). There are also some 'cultural unifiers' such as religion (Islam remains the dominant religion in the region, with over 90% of the population being Muslim) and common history (Hopkins & Ibrahim, 2003 ; Mellor, 2011b: 1–4). Historically, Arab nationalism was seen as a political reaction to both Turkish nationalism and European colonialism during the late nineteenth and early twentieth centuries (Haddad, 1994: 217). Mellor explains how, despite distinct dialects in each Arab state, the spread of one shared Modern Standard Arabic (MSA) language has contributed to the spread of Pan-Arab media and popular culture (2011b).⁵

Stemming from this Pan-Arabism, the Arab States Broadcasting Union (ASBU) was founded in 1969 as part of the League of Arab States,⁶ with the aim 'to promote cooperation among broadcasters in the Arab States for better production and content

⁵ The former Egyptian president Gamal Abdel-Nasser (1952-1970) was a key figure who linked Egyptian identity with 'Arabism, Islam and Africa' (Mellor, 2007: 48–50).

⁶ The League of Arab States consists of 22 Arab nations that stretch from the Gulf countries in the East to Mauritania in the West. Syria's participation has been suspended in November 2011 since the uprisings.

development’ (The Arab States Broadcasting Union, 2012). The ASBU has ratified the Arab Media Code of Ethics, The Arab League Satellite Charter (The Arab States Broadcasting Union, 2008), and other policies, albeit all have rarely been enforced on any private or state Arab channel.

Nevertheless, and despite the above cultural and historic unifiers, a characterisation of a monolithic ‘Pan-Arab’ media, audience, or even public sphere, is rather problematic, at least in the context of 21st century politics. The socioeconomic, political, and demographic characteristics of the Arab countries vary considerably (Mellor et al, 2011: 5–7). Egypt’s population of 82.3 million contrasts starkly with Bahrain’s 1.3 million or Qatar’s 2.2 million, for instance (WorldoMeter, 2013). Similarly, there are wide differences in the rates of GDP, poverty, literacy, and technology adoption among Arab countries (ibid). Scholars such as Mellor contend that a Pan-Arab discourse glosses over the extent of ethnic and religious diversity – such as the concentration of Berber speakers in the Maghreb, or the combination of Christians and Druze in Lebanon – that characterise the Arab population (Mellor et al., 2011). For instance, there are more than 700⁷ Arab television channels across the region, using 17 satellites,⁸ broadcasting in three languages and many Arabic dialects—not just in MSA. There are also thousands of online internet forums, discussions groups, and news portals in different languages produced and consumed by Arab users in the region and in Diaspora (Bin-Fahad et al., 2012).

Claiming one unique Pan-Arab media has also been problematic due to the increasingly divergent political interests of the Arab states since Nasser’s era. Arab states have individually pursued sub-regional (e.g., GCC, *Maghreb*, and African) alliances, bypassing several Arab League agreements. More often, allegiances to contrasting hegemonic

⁷ 124 of these channels are government owned (The Arab States Broadcasting Union, 2010).

⁸ This includes the Arabsat, Nilesat and Noorsat.

powers in the West and East – such as China, USA, Russia, Iran, and the EU – have caused political and diplomatic clashes with neighbouring Arab states. For instance, the political alliances of the Gulf, Jordan, and Egypt with the US supported the first Gulf War against neighbouring Iraq in 1990. These conflicts of interest often echoed similar subtle cultural and social tensions among Arab audiences, which continued after the Arab Spring in 2011.

Similarly, the uncritically accepted assumption that there is one distinctly ‘Arab perspective’ presented by Pan-Arab media (Zayani & Sahraoui, 2007: 31) deserves much scrutiny. Despite the mushrooming of regional Arab programmes and satellite channels stemming from over 700 television channels available to Arab viewers, no media outlet has ever managed to transcend the spectrum of ideologies resulting from embedded historic, socio-cultural, and politico-economic differences in the region. The Arab airwaves and online forums stretch from Arab nationalism, Islamism, neo-liberalism, to assorted hybrid ‘isms’ (Kraidy, 2007: 158–159).

For that purpose, the hype about the potential role of certain Pan-Arab media – such as *Aljazeera* or *Alarabiya* – for the political and cultural revival in the region, which characterised earlier scholarship on Arab media, needs careful revisiting (Auter, 2004; Ayish, 2002; Lynch, 2006; Pintak, 2009, 2010; Zayani, 2005). The notion of one ‘Arab’ public sphere, one Arab perspective, or one Arab audience has been heavily criticised by more recent empirical scholarship (Ayish, 2011; Kraidy, 2009; Mellor, 2007; Rinnawi, 2006). Some even went further to argue that wider global, rather than regional, Pan-Arab transformations have influenced Arab journalists’ identities and Arab media production (Mellor et al., 2011; Mellor, 2011b). As such, the cases will separately tackle one *Maghreb* [e.g. ‘Western’], one central, and one *Mashreq* [e.g. ‘Eastern’] news organisation in the Arab World, in an attempt to cover a more representative sampling of

this vast ecosystem. Further empirical research would need to attest to the global, transnational, and local influences on Arab journalists.

1.6.1 Typology of Arab Media Systems

To better explain the relationship between Arab media and Arab political systems, it helps to compare them with world media systems. Among the first authors who examined the relationship of the press in the Arab World is William Rugh (1979). In his first typology of the Arab press, Rugh identified three models: ‘mobilisation,’ which includes Algeria, Egypt, Syria, Libya, Sudan, Iraq, and Yemen; ‘loyalist,’ existing in Jordan, Saudi Arabia, Bahrain, Qatar, Oman, Tunisia, and the United Arab Emirates, and Palestine; and ‘diverse,’ comprising Lebanon, Kuwait, and Morocco. The two central dimensions for his typology were ‘press characteristics’ (including ownership, variety, view of regime, and style and tone) and ‘political conditions’ (such as the nature of the ruling group, the vitality of public debate, and the existence of political opposition). Nearly twenty-five years later, Rugh added a new category to his typology of Arab Print Media systems – ‘Transitional’ – into which he moved Egypt, Jordan, Tunisia, and Algeria (2004).

Although Rugh’s typology provides an important starting point for comparison, it has been heavily criticised by several Arab scholars as not reflective of the recent changes in the Arab news, and as neglecting content over ownership (Azzi, 1989) and the ‘role of émigré media’ (Mellor, 2005: 51).

Similarly, Hallin and Mancini (2004) examined 18 European and North American democracies and provided a typology of media systems, based on three key suggested models. These were the North Atlantic or liberal model; the North and Central European or democratic corporatist model; and finally, the Mediterranean or Polarised Pluralist model. The authors looked at four central dimensions in their typology: the development

of media markets, journalistic professionalisation, media-political parallelism, and the role of the state. Although this typology provided a useful backdrop for comparison, it fell short of providing sufficient examination of media systems stemming from semi-democratic models such as Arab media, or ‘transnational’ media systems such as Pan-Arab media.

In recent years, Arab scholars have attempted to provide other accounts of Arab media systems. For example, Ayish (2002) typologised Arab media into three models: ‘the traditional government-controlled,’ such as the Syrian Satellite Channel; the ‘reformist government-controlled,’ such as Abu-Dhabi TV; and the ‘liberal commercial,’ such as *Aljazeera*. Again, such a typology disregards the subtle but powerful connections between commercial media and politics in the region, and the superimpositions between the national and regional media markets in the Arab World.

Meanwhile, other authors such as Kraidy (2012) have analysed Arab media systems within a ‘transnational’ construct of the ‘Pan-Arab’ media system. He explains the tension between national and regional forces that shape the Pan-Arab media system by demonstrating the political economy linkages between the media in Saudi Arabia and Lebanon. He further argues that a Pan-Arab media converges and competes with nation-state policies, and raises questions about the universal applicability of using the nation-state as a unit of analysis for comparative media systems (177).

Regardless of the frames of analysis used, any assumption of Arab media ‘homogenisation’ and convergence with a ‘global media culture – in which the media are close to the world of business and farther from the world of politics’ (Hallin & Mancini, 2004: 76) – needs careful scrutiny and further empirical support. Although it is hard to ignore the growing commercialisation and the increasing integration of Arab media into

the global market since the beginning of the 21st century, the particular political systems of the Arab states place constraints on the processes, values, and professionalisation of media in the Arab World (Pintak, 2011).

It is not surprising, therefore, that the press freedom in all 22 Arab countries has fallen short compared to other countries worldwide, according to Freedom House annual assessments since 1993 (see Figure 1)⁹.

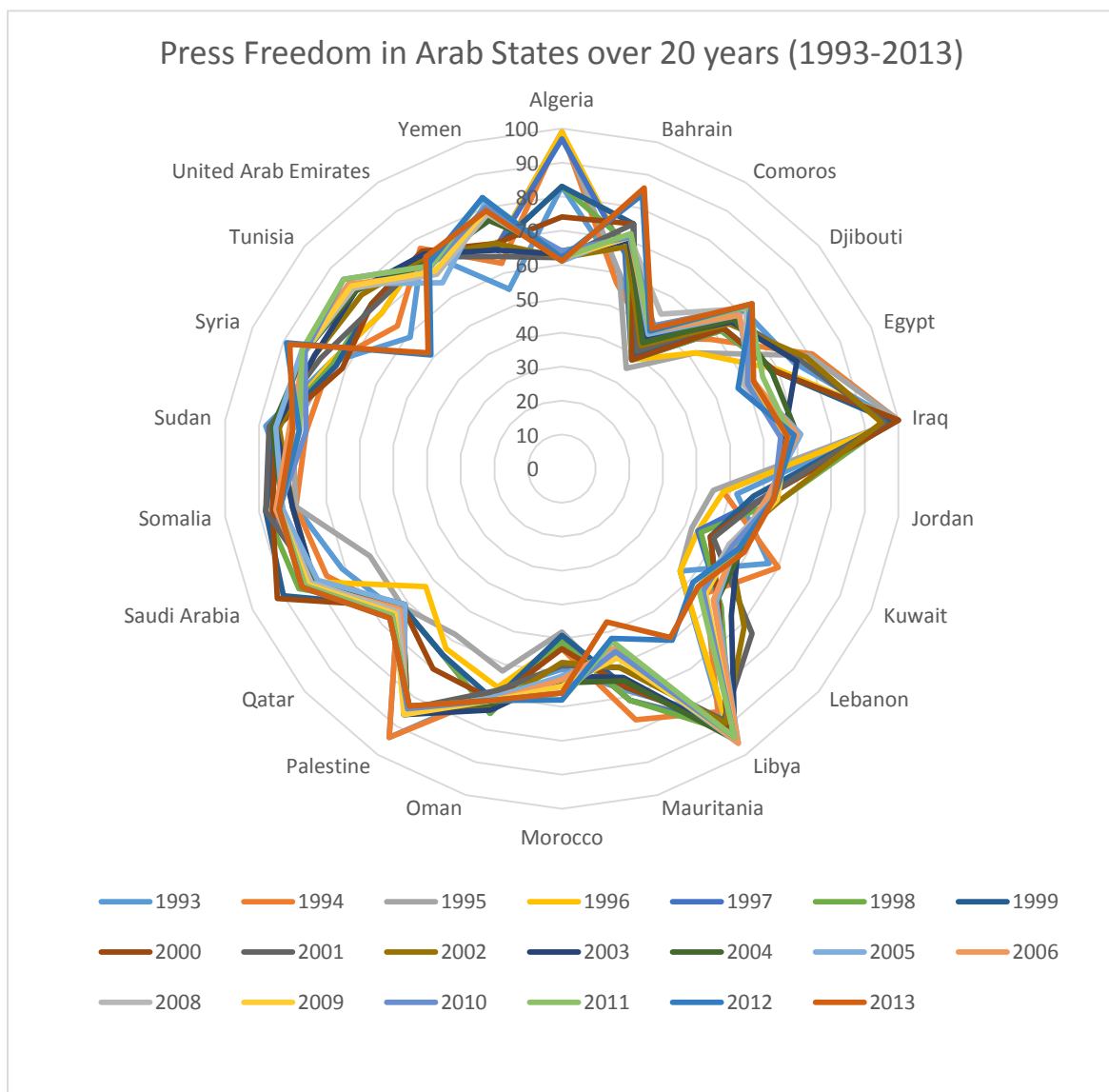


Figure 1 Press freedom in the Arab states over 20 years.

⁹ Graph developed based on Freedom House Scores

The press in no Arab state has been placed among those ranked ‘Free,’ and only a handful have bordered on ‘Partially Free’ in some years.¹⁰

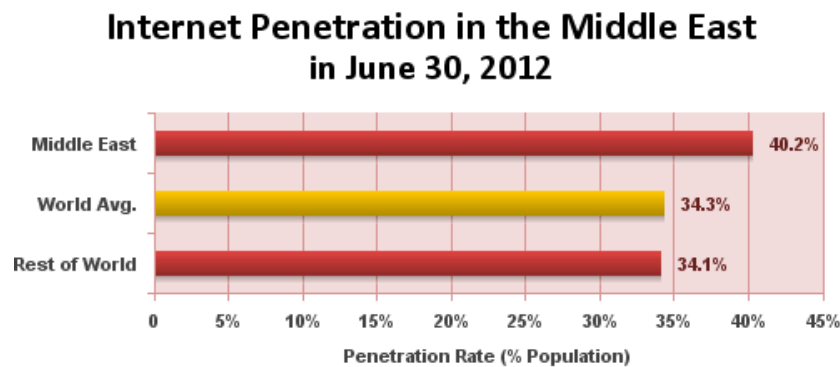


Figure 2 Internet Penetration in the Middle East¹¹

Nonetheless, and despite the political limitations on media, online news production and consumption has witness an exponential growth in the Arab World. Internet penetration has reached over 40% in June 2013, exceeding the world average penetration rates. (See figure 2).

1.6.2 Overview of Countries Studied

This section provides a snap shot of the political and economic contexts of the countries representing the case studies: Egypt, Morocco and Qatar. The political, historic and cultural contexts are discussed at length in each case study.

Following the majority of Arab states, Egypt, Morocco and Qatar have lagged in Press freedom. Freedom House ranks the political and press freedom of the three countries, showing that Moroccan press freedom was relatively better than the two other countries. Table 1 shows the Freedom House’s ranking of the three countries’ Democracy Index in its 2012 report:

¹⁰ Free (0-30); Partially Free (31-60); Not Free (61-100) where 0 is the most free. Note: some figures have been rounded to ensure regularity. Source used to develop graph: (Freedom House, 2013).

¹¹ The Middle East is compared to the world average in June 2012 (Source: World Stats)

Analysing the progress of press over the past twenty years, shows there has been little improvement in freedom of expression.

Table 1: Freedom House Ranking of Democracy Index

Freedom Index 2011	Egypt	Morocco	Qatar
Political Rights 7*	6	5	6
Civil Liberties	5	4	5
Freedom Ranking	Not Free	Partly Free	Not Free

* 7 being least free, 1 being most free¹²

As Table 1 illustrates, all three countries have historically fallen within the range of ‘Partially Free’ (31-60) and ‘Not Free’ (61-100) according to the Freedom House Press Freedom index (Karlekar & Dunham, 2013). Despite Morocco’s slight improvement in 2011 (ranked as partially free), the country has generally seen the most deterioration over time. Egypt in contrast has slowly improved despite scoring the lowest of the three in the early years.

While the political freedom of the three countries was similar, their human development and media capacities varied considerably. Table 2 shows in detail those variations. As the following chapters will discuss, each country’s wider economic and social setting influenced the appropriation of multimedia adoption. For instance, Qatar’s Internet penetration, which reached nearly 90%, made news consumption very high.

¹² A *Free* country is one where there is open political competition, a climate of respect for civil liberties, significant independent civic life, and independent media. A *Partly Free* country is one in which there is limited respect for political rights and civil liberties. *Partly Free* states frequently suffer from an environment of corruption, weak rule of law, ethnic and religious strife, and a political landscape in which a single party enjoys dominance despite a certain degree of pluralism. A *Not Free* country is one where basic political rights are absent, and basic civil liberties are widely and systematically denied. For more details, see the methodology section in (Freedom House, 2013).

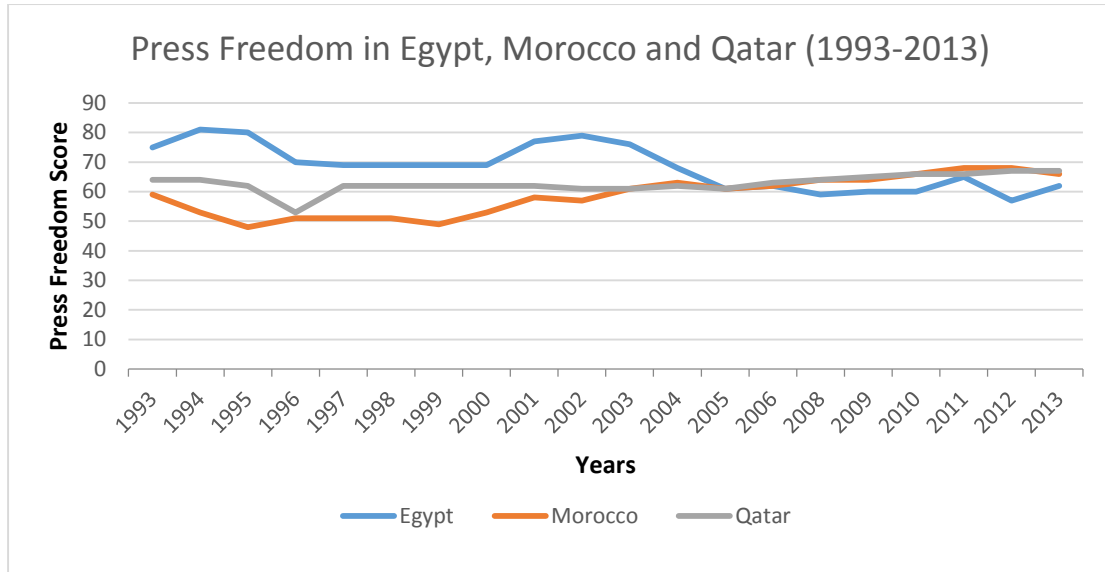


Figure 3 Press Freedom in Egypt, Morocco, and Qatar over 20 years¹³.

Moreover, the contrast between the mobile broadband penetration in Qatar (60%) and that of Morocco and Egypt, as the cases will show, presents a challenge for newsrooms innovation in the region.

Table 2: Human and Media Indicators for Egypt, Morocco, and Qatar (2011/2012)

Latest Human & Media Indicators in 2011/2012 ¹⁴	Egypt	Morocco	Qatar
Human Development Index (Rank)	112	130	36
GDP Per Capita (USD)	5,547	4,373	77,987
Population	83.9 m	32.5 m	1.9 m
Daily Newspapers ¹⁵	4,401	37	7 ¹⁶
TV Penetration in 2011 ¹⁷	96%	90%	92%
Mobile Penetration in 2012	115.29%	119.69%	134.11%
Internet Penetration in 2012 ¹⁸	44.1%	55%	88.1%
(Fixed) Broadband Penetration in 2012	2.7%	2.1%	8.2%
Mobile Broadband Penetration in 2012	20%	10%	60%
ICT Global Rank	83	90	30
ICT Development Index (IDI)	3.66	3.46	6.24

¹³ Note the higher the graph score the 'less' free the country is on the scale.

¹⁴ (UNDP, 2013).

¹⁵ (WAN-IFRA, 2012).

¹⁶ Qatar's daily newspaper data was only available from the Arab Media Outlook report (2012: 203).

¹⁷ (Bin-Fahad et al., 2012).

¹⁸ (ITU, 2013).

1.7 The Thesis Structure

The following chapters develop around the three case studies as their central source of insights on the social shaping of multimedia innovation in online newsrooms. The first chapter presents an overview of the literature on multimedia innovation. It highlights the limitations of current scholarship and presents the theoretical underpinning of this research, anchored in the social shaping of technology. Discussion of the theoretical framework is then followed by the methods chapter which outlines the empirical case study approach of this research, which was used to address the main research questions. This chapter discusses the rationale behind the choice of the three Arabic newsrooms and the operational processes the research followed, including some of the challenges and limitations.

The following three chapters each examine the case studies of *Almassae* in Morocco, *Almasry Alyoum* in Egypt, and *Aljazeera* in Qatar. They provide a description of the political and cultural contexts of these newsrooms, a detailed description of the newsrooms, and the different actors that shape the dynamics of innovation in each. Within each case study chapter is an embedded case, highlighting a particular example of how the political context of the Arab Spring shaped the newsroom innovation process.

A sixth chapter then synthesises the cases, providing a comparative analysis of the key themes emerging from the cases. This chapter builds on a grounded approach stemming from the field data, rather than adopting a standardised Diffusion of Innovation (DoI) model. The chapter then juxtaposes these findings with the theoretical underpinnings adopted – namely, the diffusion of innovation models and the social shaping of technology – providing a critique of how the findings converged or diverged from the model. Finally, the concluding chapter provides a summary of the findings along with a wider discussion of the implications of the political, organisational, and industrial shaping

of multimedia technology for the construction of news online. It provides insights on future areas for research and suggestions for advancing the theorizing of newsroom technological innovation.

2 Chapter Two: Literature Review and Theoretical

Discussion

2.1 Introduction

This research draws from conceptual resources originating in cultural and media studies, as well as in the sociology of technological innovation in newsrooms. The chapter aims to outline the key literature on online news and multimedia innovation, and provide some critique of current theories relevant to multimedia innovation in the newsroom. It surveys the relevant past scholarship on news production as well as on innovation practices to date. It will first trace the changes taking place in news media with the rise of the Internet, and will then analyse the dominant modes of inquiry in recent research on online newsrooms innovation and multimedia production. It will then tackle the organisational and social theories that attempted to explain newsroom innovations and which guided this research study. In particular, it will discuss the Diffusion of Innovation (DoI) and the Social Shaping of Technology (SST) constructs, looking at their strengths and shortcomings. This is followed by a critique of the past research and an assessment of the limitations and potential paths to build on existing scholarship.

2.2 Digital Media: What's New?

Despite the sometimes misleading use of the term 'new media' – given its implicit assumption of a fixed 'old' when media is constantly and temporally changing – it is acknowledged that there is some 'newness' in media as a result of digitisation. Over time, the term changed its illusive implication of an 'eternal new' to rather symbolise digitised media. Anything digital became somehow considered part of new media.

New media, and the changes associated with it, apply particularly to the news industry and the field of journalism. The practices and processes of new media production, together with the presentation of content, have evolved with the rise of digitisation (Scott, 2005). Moreover, since the mid-1990s and the advent of the Internet, the news market and industry have dramatically shifted. Nonetheless, some journalistic values and practices have been more persistent than others.

This section traces the scholarship's depiction of changes in mainstream news media as they assume digital and multimedia form, and the underlying causes behind those changes.

2.2.1 Causes of Online News Innovation

This research defines innovation in online news as 'the development by the online staff of new production practices, new product features or new technological tools, which can include systems, programs or applications that help in the distribution, acquisition, processing, display and storage' of the news content (Schmitz-Weiss & Domingo, 2010: 1158).

Scholars provide various explanations as to why online journalism adopts innovations. Gilbert (2005) looked at online ventures of print newspapers and argues that a strong perception of outside 'threat' from newcomers in the media industry helped incumbent media companies change their investment patterns and introduce new technology.

Implications for profitability and revenue models are underscored by several studies that show that users do not seem prepared to pay for content (Aguila-Obra et al, 2007; AlShehri & Gunter, 2002; Bustamante, 2004; Chyi, 2005). This is seen as directly linked to the growing importance of advertising revenue to offset the loss of subscription costs. Some scholars express concern about the increased blurring of commercial and editorial

content in the online environment as a result of advertising (Cassidy, 2005; Cohen, 2002; Hutchins, 2007; Quandt, 2008a; Yang & Oliver, 2004). Singer argues that ‘online media sites are integrating content that generates revenue from advertisers with content that ostensibly is intended to fulfil the professional obligation to provide public service’ (Singer, 2003: 154).

Some studies have found that established journalistic operations have not fully realised the potential of new technologies, thus effecting limited change across the industry (Boczkowski, 2004a; Cohen, 2002; Deuze, 2003; Garcia, 2008; Garrison, 2005; Quandt, 2008a; Quinn, 2005). Domingo conducted an ethnographic study of four Spanish online newsrooms and found that ‘interactivity (was) counterintuitive with the principles of traditional journalistic culture (which) tended to diminish the willingness to explore audience participation’ (2008a: 698).

These causes of innovation in the newsroom have been tied to transformation in the practices of gathering, producing, and publishing news.

2.2.2 Consequences of News Innovation on Newsroom Practices

Since 2000, most scholarly research on online journalistic practices have focused on four changes: modifications in editorial workflow, alterations in news-gathering practices, acceleration of patterns of content production, and the convergence of print, broadcast, and online operations.

Concerning editorial workflow, scholars have found that online news has increased the pressure on journalists to multi-task and to demonstrate ‘multi-skill’ by combining news-gathering and story-telling techniques in different media formats (Bromley, 1997; Cawley, 2008; Lawson, 2006; Ursell, 2001; Zavoina & Reichert, 2000). These workflow changes are creating what Boczkowski calls the ‘de-reification of media options.’ The

Web's multimedia potential is requiring journalists to choose what medium or media to use for a particular story (2004a: 123).

Another important issue of workflow is gatekeeping. Some scholars have suggested that the Web challenges the need for traditional gatekeeping roles because every node can be a sender and receiver of news (Bardoel, 1996; Kawamoto, 1998; Newhagen, 1998; Singer, 1998). As Williams puts it, 'in a world where everyone can be a publisher, journalists are vulnerable to losing their franchise as gatekeepers of news' (1998: 34). Others, like Boczkowski (2004a), argue that the configuration of work practices around gatekeeping tasks is what shapes how multimedia is adopted in newsrooms.

Acceleration of patterns of content production is another change in newsrooms. The temporal patterns of the once-twice-a-day news cycle, have accelerated so drastically that they amounted to what Klinenberg called the 'news cyclone' (2005). In a survey on online journalists in the Netherlands and Belgium, Dueze and Paulussen found that journalists believe their profession is developing as a new type of journalism premised on ideas of immediacy, hypertext, and multimedia, and that 'more traditional roles of journalism, such as gatekeeping and agenda-setting, are becoming less important' (2002: 243). Similarly, in a survey conducted on print and online journalists in the USA, Cassidy (2005) found that news producers rated getting information to the public quickly as their most important role.

The implications of acceleration of online news production have led to changes in the traditional way of producing news. Quandt conducted ethnographic work on five German news sites, and argues that accelerated production leads to journalism that is dependent on news agency, due to lack of time for research, cross-checking, and original writing (2008b). This is what he called 'second hand' journalism (2008b: 89). This has led some

scholars to argue that the constant pressure to deliver ‘high-speed’ news is increasingly requiring journalists to acquire public relations skills, often more than traditional journalistic skills. (Saltzis, 2008).

Moreover, scholars have looked at the organisational integration among print, broadcast, and online operations, usually known as ‘convergence’ (Dennis, 2006; Deuze, 2007; Dupagne & Garrison, 2006; Quinn, 2005; Saltzis & Dickinson, 2008). Some research indicates that the trend toward convergence has not been uniform across organisations, industries, and countries. This is due to the different patterns in the merging of the old and new logics of content production that mark the various media involved (Boczkowski & Ferris, 2005; Klinenberg, 2005; Kopper et al., 2000; Meier, 2007). However, more recent research is showing that the trend of convergence is on the rise, and more media organisations are investing in convergence, even for those that were originally print based (Myton, 2007; Butterworth, 2007; Reeve, 2007).

Finally, another prism to consider when tracing the differences between old and new media is the conceptions news journalists have about their audiences or – in the case of the Internet – users. Historically, traditional media journalists, like writers, have often addressed an ‘implied audience,’ often reflecting their own self-image. Herbert Gans (1979: 230) studied US news weeklies and network television programmes, and found that reporters and editors often ‘had little knowledge about the actual audience and rejected feedback from it.’ They typically assumed that ‘what interested them would interest the audience.’ Over time however, with the advent of extensive behaviour and opinion analysis data available to journalists, users are closer to the newsrooms than ever. This phenomenon has raised interest among media scholars in studying the degree to which audiences have different representations in the newsrooms.

2.3 Online News Production Attributes

This research focuses on the design, presentation, and distribution attributes of news when done online. It will outline the key characteristics of these attributes that are particular to online news production in general, and to multimedia in particular.

2.3.1 Online News Journalism and Its Presentation

Originally, research on online journalism was dominated by investigation of three particular assets of new technology that are considered to have the greatest impact on online journalism presentation: hypertext, interactivity, and multimedia (Dahlgren, 1996; Paulussen, 2002; Deuze, 2003; Deuze, 2004). Hypertext, a term first coined by Nelson (1965), is generally understood to be a computer-based non-linear group of text or images that are linked together with hyperlinks (Steensen, 2011). Like hypertext, interactivity is used to describe several processes related to communication in general and online journalism in particular. Jensen's (1998: 201) historic account of the term defines it as 'a measure of a media's potential ability to let the user exert an influence on the content and/or form of the mediated communication.' Moreover McMillan (2002, 2005) identified nine different understandings of interactivity: Human-to-Human, Human-to-Computer, and Human-to-Content, compared across elements of 'feature,' 'processes,' and 'perceptions.' Multimedia attributes will be discussed at length in the following section.

Although those three attributes were initially assessed as characteristic of online journalism, several researchers have attempted to widen this list to include attributes that are technically-shaped by the very nature of the Internet. For instance, Dahlgren (1996) added archival and figural characteristics, while Harper (1998) and Lasica (2002) included 'Personalisation' of content, and Pavlik (2001) added the contextualisation and

ubiquity of content itself. Moreover, Domingo (2006) argued that immediacy is among key aspects of online journalism. Nevertheless, the literature on technology and online journalism has been flooded with other concepts to describe online journalism, including concepts of convergence, transparency, hypermedia, user-generated content, participatory journalism, citizen journalism, wiki-journalism, and crowdsourcing (Steensen, 2011). More recently, social media and enabling platforms of distribution, such as Facebook, Twitter and YouTube, have been added to the list of attributes characterising online journalism and its news presentation.

This research has found that the boundaries between content and the technology that enables the format and presentation of that content are increasingly blurred. The reason scholars have not been able to find the same clear-cut attributes of online journalism as for print or broadcast is because of that amalgamation between news content, format, presentation, platform, and technology (please see also discussion on how the empirical findings confirmed this notion in section 7.1.1 p.294).

2.3.2 Multimedia Features: Typology and Characteristics

Multimedia, in the general sense, are regarded as all types of content that cannot be produced in an analogue paper (Karlsson & Clerwall, 2012; J. B. Singer, 2004; Steensen, 2011). This includes the content of more than one medium, e.g., audio and web radio, video and web TV, polls, and animation. It can also include content that is hypertextual and ‘non-sequential’ (Nelson, 1981), or interactive features of storytelling borrowed from digital games, such as interactive infographics, animation, slideshows, and timelines. Some scholars have expanded this definition to include sharing and social media tools (Jacobson, 2012). In their entirety, multimedia have been described in terms of the presentation of news content (e.g., two or more media content), integration of that content from multiple media (e.g., convergence of newsrooms), and distribution of content

through multiple platforms and devices. At the heart of this broad definition in the media literature, multimedia are about how news story telling is done for the web.

The term 'multimedia' is used in slightly different ways when referred to by media scholars than by educational scholars. For the former, multimedia refers to the integration of speech, music, text, graphic, still, animation, and video in media representation and editorial content (Boczkowski, 2004a; Hoogeveen, 1997; Vobic, 2011). It often implies 'multisensory,' 'multimodal,' 'multichannel,' 'multiplatform,' and a state of 'convergence' of different media modalities realised through digitisation (Brannon, 2008; M Deuze, 2008; Mark Deuze, 2004; Marmolin, 1991; Paterson & Domingo, 2008; Quinn, 2005). Deuze (2004: 140) explains that the concept of multimedia in online journalism studies is either about: 1) presentation of a news story package where two or more media formats are utilised (such as text, audio, video, graphics, etc.), or 2) distribution of a news story packaged through different media (e.g., newspaper, website, radio, television, etc.). For educational psychologists, the term is often used in the context of learning, and involves the different mixes of visual and spoken presentations with text in the design of instructional material (Mayer, 2001, 2005; Jamet et al, 2008; Tabbers et al, 2004, Sweller et al, 1997, 1998).

The adoption of multimedia in the newsroom, like that of the phone, typewriters, and fax machines, is both a result and a cause of technological innovation. Observing the patterns of development and implementation of multimedia, thus, helps foster better comprehension of the processes of innovation in contemporary journalism. Understanding the evolution of multimedia is one pathway to understanding innovation in contemporary newsrooms.

Theoretically, Mark and Deuze (2004) argued that understanding multimedia use in the newsroom requires examining the social organisation of multimedia journalism rather than the forms of it, and proposed a framework of ‘multimedia logic’ that considers the institutional, technical, and organisational attributes, as well as the users’ and producers’ competences that are critical to shaping multimedia news. This sociological approach builds on earlier works theorising the social and cultural shaping of news and technology (Schudson, 1989, 2003; Shoemaker & Reese, 1996; Altheide & Snow, 1989). Later research has stressed that the technological novelties in news production are implemented in the context of existing socio-material infrastructures, which include factors related to the organisational structures, work practices, and conceptions about the users that make newsrooms appropriate technologies in different ways (Boczkowski, 2004b; Deuze, 2008; Paterson & Domingo, 2008; Schmitz Weiss & Domingo, 2010).

Empirically, scholarship on multimedia has been divided into three main categories: studies of the content of multimedia (Jacobson, 2012; Jankowski & Van Selm, 2000; Karlsson & Clerwall, 2012), the producers of multimedia (Boczkowski, 2004b; Mensing & Greer, 2006; Mitchelstein & Boczkowski, 2009; Robinson & Greenberg, 2010; Thurman & Lupton, 2008; Vujnovic et al., 2010), and the audiences of multimedia (Sundar, 2000).

Multimedia in journalism is closely tied to ‘convergence’, which is the increasing cooperation, collaboration, and combination of technologies, staff, and spaces between formerly distinct editorial teams of print, television, and online media (Deuze, 2004; Saltzis & Dickinson, 2008; Pavlink, 2000). Multimedia or convergent journalism has been regarded by some scholars as a practice or a genre in the profession in itself (Deuze, 2004, Quinn, 2005). Deuze argues that, just like the fields of print, radio, and television journalism before it, convergent online journalism has been functionally differentiated by

using its technological component as a determining factor. The online journalist has to make decisions about which media format or formats best tell a certain story (multimediality), consider options for the public to respond, interact, or even customise certain stories (interactivity), and think about ways to connect the story to other stories, archives, resources, and so on through hyperlinks (hypertextuality) (Deuze, 2008: 201).

Multimedia journalism is relatively new. Earlier studies found that online journalism was not 'driven' by multimedia and, while 'digital story-telling using multiple media could be seen as potential, it was not a necessary element of added value to an online journalistic presentation' (Deuze, 2004: 141). News organisations tended to repurpose their 'offline' media from print or TV for publication on the Web (MacGregor, 2003). Similarly, Quandt found that stories linked to the homepages of major news websites in the US and Europe reveal a 'lack of multimedia content' (2008a: 735). Moreover, Jankowski and van Slem (2000: 7) found that multimedia was 'perhaps the most underdeveloped' of all value-added facilities of online journalism in a qualitative-content analysis study on American, Canadian, and Dutch websites. They also found that news sites affiliated with TV stations were more likely to utilise multimedia than those stemming from the pure print industry. Meanwhile, in a study of 10 online news sites from the US, UK, Germany, France, and Russia, Quandt (2008a) found that 84.5% of 1600 selected stories were strictly text-based.

Some early studies relying on interviewing or surveys have attempted to assess the reasons for the slow growth of multimedia online journalism. For instance, Jackson and Paul (1998) in the US, and Neuberger et al (1998) in Germany, found that despite the general positive attitude among editors toward utilising multimedia technology, problems related to lack of staff, inadequate transmission capacity, and other technical issues obstructed the materialisation of multimedia content.

However, over time the number and sophistication of the multimedia features particular to news grew. Mensing and Greer (2006) found a significant increase in multimedia use between 1997 and 2003 in their longitudinal study on US online newspapers. By 2007, over half of US and UK newspaper websites produced audio slideshows and videos. (Bergland et al., 2008).

The growth of multimedia led researchers to study ‘multimedia’ and expand its scope. For instance, Jacobson (2011) examined the ‘narrative characteristics’ of multimedia packages produced on nytimes.com from 2000-2008, and found that multimedia were used as an extension of the written word, rather than a primary storytelling format, and that they embody content that cannot be replicated or repurposed directly from print.

2.3.3 Video on the Rise?

Perhaps among the most production formats to which multimedia is attributed within news organisations is video production. In a survey by Lillie (2011), journalists reported that news managers pressured them to produce video instead of audio slideshows. Jacobson (2011) found video packages of the New York Times website were more likely to be published as standalone entities on the Web, without a corresponding textual story (54.3%, n=69) than to be published in conjunction with a written story (41.7%, n=53), in sharp contrast to photo slideshows and interactive features which were largely created to complemented a written story. She noted the number of standalone videos on the website was ‘surprising,’ considering that written text is the foundation of the organisation’s journalism (13). Moreover, in a recent study of multimedia content on BBC online, Thorsen (2010) concluded that video content has increased tremendously.

From a presentation perspective, some scholars are depicting that news editors are increasing the level of sophistication of their video package interfaces, embedding them

within dedicated video libraries rather than linking them to related stories (Jacobson, 2011: 15). This suggests that video packages are increasingly regarded by news editors as standalone news features on the Web, rather than elements produced within the journalistic ‘textual’ story.

2.4 Organisational Innovation in Digital Media

The question of *why* one new thing, practice, or idea would be widely adopted, while another would be all but ignored, was a matter of concern to a number of social disciplines. Since the late 1800s, Western scholars have attempted to provide explanations. For example, Gabriel Tarde, the French sociologist, raised the question:

Our problem is to learn why, given one hundred different innovations conceived of at the same time – innovations in the form of words, in mythological ideas, in industrial process, etc. – ten will spread abroad, while ninety will be forgotten. (1890: 140)

Tarde contended that a ‘universal law of imitation’ is driven by relating the characteristics of ‘things’ to human ‘desires’ through a process of ‘suggestion’ – which could now be identified as the human ‘decision making process’ (Defleur, 2010: 232).

Since the 20th century, social scientists have taken this concept further and looked into the processes and meaning of organisational innovation (Meier, 2007; Robertson, 1967; Rogers, 2003). Slappendel (1996: 109) maps out three key perspectives for organisational innovation. These are the individualist perspective (focusing on the individual as the driving force), the structuralist perspective (internal and external structural characteristics that influence the organisational innovation), and the ‘interaction of the structural influences and the actions of individuals’ perspective. He contends that the third perspective is the best approach to understand innovation, as it addresses the complexity of the relationship between individuals’ actions and structures (1996: 118).

Technological innovation in particular has often been a key aspect in the adaptation of journalism to new social and market trends, although it was seldom the focus of research until the advent of online journalism (Cottle & Ashton, 1999). The exploration of how technological innovation evolves within newsrooms goes back to the studies looking at the introduction of the telephone and printing (Fischer, 1992; Nguyen, 2007). Over the past sixty years, media scholars have examined print newsrooms and their technologies, including the workflow of the telegraph (Beiber, 1956), the flow of information with technologies (Garrison, 1998; Herbert, 2000; Reavy, 2001; Gunter, 2003); and the use of databases in the newsroom (Garrison, 1998; Semonche, 1993; Schmitz Weiss, 2008). But it was only when ethnographic research on online newsrooms emerged in the early 2000s that close attention was paid to how the routines and professional culture of journalism interact with technical developments to shape the definitions and practices of online journalism (Paterson, 2008; Boczkowski, 2001, 2004a, 2005, 2008).

2.4.1 Diffusion of Innovation: A Critical Review

One particular theoretical construct that sought to explain innovation in newsrooms is the Diffusion of Innovation (DoI) approach. The diffusion of innovation can be traced to Ryan and Gross' (1943) seminal work on farmers' adoption of hybrid seed corn. Their study found that adoption was not a quick decision. Economic factors, as well as processes of interpersonal and mediated communications, formed part of the farmers' knowledge and final decisions to implement hybrid seeds.

Since then, there has been keen interest in the spread of innovation; as media scholars began to merge the studies of acquisition of new technology and the study of influences of mass communication. For instance, Everett Rogers (1963) looked at 506 diffusion studies in various fields, and developed five major stages in the diffusion process. These stages were awareness, interest, evaluation, trial, and finally, adoption. Building on Ryan

and Gross's work, he also integrated the pattern, the process, and the types of people into a synthesis of adopter category based on 'innovativeness.' His classification included: innovators, early adopters, early majority adopters, later majority adopters, and finally, laggards (240-270). As such, Rogers defined diffusion as 'a special type of communication. Diffusion is the process by which innovations spread to the members of a social system.' (Rogers & Shoemaker, 1971: 19).

In journalism and Internet studies, DoI has been used to examine the dynamics occurring when an innovation is introduced in a news organisation. Media scholars built on the DoI construct, attending more to ethnographic approaches to understanding the individual agency and dynamics of innovation processes within newsrooms. For instance, Steensen's longitudinal case study of dagbladet.no – a Norwegian online newspaper – looked into the organisation structures of the newsroom and found that a negotiation between the historical and contemporary axes of the newsroom shaped the journalists new online roles (2009). Boczkowski's (2004b) influential longitudinal study of four US newsrooms also looked at the organisational structures, the work cultures of online and print, and the representation of the user within these newsrooms that shaped the dynamics of innovation.

Despite the contribution of Rogers' seminal work on the Diffusion of Innovation (DoI) theory in understanding technological innovations in news production, it has three limitations that have become particularly salient to making sense of the dynamics of multimedia adoption.

The first shortcoming is the underlying assumption that innovation is inherently 'good' – what is commonly known as the 'pro-innovation' bias – regardless of the consequences for the values and practice of journalism. The pro-innovation inherent bias was highly

criticised by many scholars (Downs & Mohr, 1976). Rogers himself acknowledged this shortcoming in his later editions of his theory (Rogers, 2003). Similarly, ranking individuals or groups in terms of adoption, although it could be useful in identifying differences among types of news organisations that adopt certain innovations at various time intervals (especially vis-à-vis a ‘critical mass’), accepts the notion that innovation adds value to news making as ipso facto. Such a categorisation could yield to technologically deterministic assumptions about news innovations. Media researchers should instead attend to understanding the consequences of certain multimedia innovations on the construction of news online, the professional values of journalism, and the quality of news products.

The second shortcoming is the difficulty of clearly marking the boundaries between ‘individuals’ adoption and ‘groups’ or social systems’ adoption. For instance, how can we differentiate between the diffusion patterns of a member in an organisation, and those ‘within’ members of a group or society? Similarly, what distinctions (if any) can be made to differentiate ‘between groups’ diffusion and ‘within group diffusion.’ If a news organisation adopts a multimedia artifact, is that considered a ‘within group’ or ‘between-groups’ diffusion? What quantitative or qualitative patterns are formed over time as increasing numbers of members – such as news professionals – decide to adopt the innovation, is not entirely clear by DoI.

The third shortcoming of the DoI is the postulation that an innovation is an ‘end,’ rather than a continuum that could follow multiple trajectories. ‘Innovations do not remain static during the innovation process, rather, they may be transformed by it’ (Slappendel, 1996: 121). This perspective led to many media studies looking at innovation effects rather than development in the newsrooms. There is therefore a need to understand news innovation within a wider continuum, looking at the processes and dynamics of adoption, as well as

the adaptations made to the material technological artifacts introduced into each news organisation. There is also a need to bring empirical and comparative evidence about how news organisations appropriate multimedia innovations, and how this in turn shapes the evolution of multimedia. For instance, raising questions – such as, is multimedia production implemented in the same way, or rather adapted differently according to the needs of each newsroom (and its users), and to what extent does one newsroom’s adaptations shape the wider diffusion across news organisations more generally? – could all bring insights into the path and trajectories multimedia innovations are taking.

2.4.2 Technology as a Socio-material Practice

The Social Shaping of Technology (SST) originated in the 1980s as a concern over the growing ‘technological determinism’ that dominated the understanding of the intertwining of society and technology at the time. The SST construct attempted to remedy some of the shortcomings of DoI, by contending that all technologies are inherently social in that they are designed, produced, used, and governed by people (Mackenzie & Wajcman, 1999). Since then, several social scientists have shown the profound interconnectedness between the political, economic, and social orders, and the construction and use of technological artifacts (Dutton, 2012; Hofmann, 2009; Mackenzie & Wajcman, 1999; Winner, 1999).

Likewise, media scholars who have examined the consequences of innovation for the media industry and society have shared a consensus that rejects deterministic explanations of media technological artifacts. A growing body of scholarship has extensively covered how journalism has not necessarily followed a ‘revolutionary’ trajectory as a result of the Internet, arguing that such earlier predictions of the 1990s (Pavlik, 1999) were typical instances of technological determinism. For instance, a number of ethnographic studies of online newsrooms explored how earlier reactions to

the Internet and what it could bring to journalism tended to mystify technological innovation and assumed that it can inevitably and directly produce social change (Boczkowski, 2004b; Domingo, 2008a, 2008b; Paterson & Domingo, 2008).

Instead, they propose that technological innovations are mediated and shaped by initial conditions and contextual characteristics (Boczkowski, 2004a; 2004c; Conboy & Steel, 2008; Haas, 2005; He & Zhu, 2002; Sousa, 2006; Ursell, 2001). For instance, Fletcher (2003) found that the adoption of videotext innovation – a computer-based interactive system to access and selectively view text and graphics on a terminal screen (Cats-Baril & Jelassi, 1994) – was far more successful in France than in USA, as a result of both technical and political choices. She explained how the interaction between market, state, and culture shaped the network development differently in each country; and contended that the videotext innovation was a ‘techno-political’ project (2003: 304).

Similarly, in an analysis of how journalism has changed in the digital environment, Deuze (2007: 153) argued that ‘technology is not an independent factor influencing journalistic work from outside, but must be seen in terms of implementation, and how it extends and amplifies previous ways of doing things.’ Meanwhile, Boczkowski called for a ‘constructivist’ perspective of studying online journalism: one that acknowledges that technological innovation is a historically and socially embedded process that takes place in specific locations (newsrooms) and evolves because of the decisions of specific actors (such as journalists, managers, technical staff, and advertisers) (Boczkowski, 2004b).

Building on that SST construct, recent studies of cultural production in digital media have explored how the routines and professional culture of journalism interacts with technical developments to shape the practices of online journalism (Boczkowski, 2004a, 2004b, 2004c; Boczkowski & Ferris, 2005; Paterson & Domingo, 2008). For instance, a small

amount of research looked into how team reflexivity – or conscious reflection on team functioning – shapes adoption and adaptation of innovation in the newsroom (Chouldry, 2003; Boczkowski, 1999, 2004b). Looking at some citizen journalism sites such as *ohmyNews*, Kim and Hamilton suggested that the socio-political conditions for emergence of such sites are ‘far from being a portable template transferrable to any setting and country. It [the news site]... can only be fully understood, not as a generalised model, but as a particular response to, and enabled by, very specific conditions to each country (2006: 547).

Despite their criticism of ‘technological determinism,’ SST scholars acknowledged that they do not entirely reject the influence that technological systems have had on society. Even Mackenzie and Wajcman expressed some sympathy for ‘soft determinism,’ arguing that ‘to say that technology’s social effects are complex and contingent is not to say that it has *no* social effects’ (Mackenzie & Wajcman, 1999: 4). Recent work in online newsrooms, for instance, demonstrated that the material and non-material elements ‘originate, endure and decay as a result of situation and interrelated processes of construction’ (Boczkowski, 2001, 2004a, 2004b, 2004c, 2005; Schmitz-Weiss, 2008). As such, technology becomes a ‘socio-technical product, ‘patterned by the conditions of its creation and use’ (Wajcman, 2014).

One important concept related to soft determinism is ‘affordance’. Originally coined by Gibson (1977), the notion of affordance refers to the ‘potential complimentary relations between an organism and its environment...indicat[ing] how the world could be acted on by the organism’ (Leeuwen, Smitsman & Leeuwen, 1994: 176). In such way, as ‘different technologies afford different operations... they make some things easy to do, others difficult or impossible’ (Norman, 1993: 106). For instance, a floor surface affords walking and running but not swimming. Similarly, the Web affords newspapers many-to-

many exchanges with users through emails and interactive publishing features, but not the intimate feeling a reader gets from revisiting one personal and eternal print copy. The notion of affordance enables us to assess how the distinctive material characteristics of one thing, may be realized by the ‘actors’ within its environment. Taking account of technological artifacts’ materiality, scholars such as Boczkowski (2001) and Greeno (1994) have argued that ‘a system that provides an affordance for some activity, does not imply that the activity will occur, although it contributes to the possibility of that activity (Greeno, 1994: 340). A technological artifact’s materiality by itself does not inevitably translate into a specific social action. Thus the idea of affordance enables analysts to escape the twin problems of social and technological determinism by ‘stressing the “potential” role played by the “materiality” of things’ (Boczkowski, 2001: 19).

2.4.3 Mutual Shaping of Technology

Both the SST and DoI theoretical perspectives have sought to capture the complexity of the relationship between society and media. They both address the evolution and the rate of technological development, and to some degree, examine the choices people make about technologies, and are concerned with the consequences of technology adoption and use (Lievrouw, 2002: 247–248). Despite these common influences, however, the two perspectives were criticised for not being able to solely explain how media artifacts evolve within newsrooms.

Between the SST and the DoI emerged a number of scholars who identified that a process of ‘mutual shaping of society and technology’ takes place, rather than explaining the social shaping of technology and the technical building of society separately (Bijker & Bisterveld, 2000: 485–486; Boczkowski, 1999, 2004a). Lievrouw, for instance, reviewed the development of two media technologies – videotext which failed and electronic mail which succeeded – from the viewpoint of DoI and SST, and suggested ‘shifting between

contingency and determination' to understand any media technological development (2002: 258–261). Similarly, Poespel (2011) looked at the introduction and development of a new social journalism platform into a newspaper, and proposed the use of the Mutual Shaping of Technology (MTS) construct as an approach to understanding the dynamic relationship between efforts to diffuse technological innovations (DoI) and efforts to shape those innovations (SST). Scholars such as Boczkowski (2004a) have argued that this mutual process is ongoing and is essentially embedded in the historical context in which it unfolds.

2.4.4 Online Newsrooms Innovation as Actor-networks and Communities of Practice

Among the social theories that attempted to explain innovation in journalism, which could help understand how multimedia is developed within the newsroom, are two particular theories: the Actor-Network theory (ANT) and the Community of Practice (CoP) theory.

The Actor-Network Theory (ANT) is a sociological approach that argues that social structure shapes social action, which originally has stemmed from the study of how scientific knowledge is constructed in laboratories (Latour 2005; Latour & Woolgar, 1979). The theory argues that social groups are better understood as actor-networks, or a net of relationships in which each actor or actant has a contingent position that can change over time depending on the 'equilibrium of power, strategies, and definitions of the network that each has. It also acknowledges the technical artifacts as actors that have to be taken into account to understand the evolution and structure of the network (Latour, 2005).

The applicability of this theory to media studies has been covered in the literature by scholars such as Couldry (2008), Silverstone (1994), and Turner (2005). For instance, Couldry argues that the ANT approach to innovation can be understood as a result of decisions and power relationships between acts in a localised social setting (2008).

Boczkowski tackled the concept of ‘affording flexibility’ of technology – or the broader spectrum of potentials that ‘the web affords actors used to construct content out of the relatively more rigid set of possibilities afforded by print – when exploring how technology evolved within three American newspapers in their process of moving online (2001: 20-22).

Meanwhile, the Communications of Practice (CoP) theory approaches technological innovations as ‘embedded in process of redefinition of group dynamics and work routines’ within an open process that mutually shapes the technical developments and the professional practices. The concept of CoP was originally coined in Lave and Wenger’s (1991) anthropological work on how learning occurs outside classrooms, arguing that learning is not an individual activity that occurs in a vacuum, but one that involves the experiences inside the learning group, the artifacts used for learning, and the apprentice master. Wenger states that mutual engagement, joint enterprise, and shared repertoire (1998) are collectively in negotiation and mutual engagement to form the practice. Schmitz-Weiss (2006, 2007, 2008) related this concept to journalists in newsrooms in her studies.

Schmitz-Weiss and Domingo’s (2010) empirical research on North American and Catalan newsrooms also found that the dynamics of the negotiation and learning process, as well as the actors involved in innovation decisions inside the newsrooms, are essential factors in shaping the decisions of innovation inside these newsrooms.

Although ANT and CoP bring rich understanding of the agency and social dynamics inside the newsroom that shape innovation processes, they require longitudinal and extensive ethnographic research. To be able to examine the subtleties of learning, power relationships, and agency, media researchers would need to observe the newsrooms over long periods of time. For that purpose, this study will only refer to them when relating to internal dynamics and agencies in the newsrooms. The wider scope of the SST would be more inclusive to analysis the factors and the scope of this study.

2.5 Limitations of the Literature

From the foregoing literature review, this section will identify the key limitations and potential paths to build on the strengths of existing scholarship. It will examine the shortcomings of studies of online news production and multimedia innovation, and suggest areas that research can address.

2.5.1 News Production and Online Newsrooms

Firstly, most previous empirical research on technology adoption in the newsroom has looked at editorial dynamics and products only as *effects* of technological change. For instance, past research has analysed multimedia content, and the attitudes and practices of journalists, looking at how the adoption of multimedia is impacting journalistic practices. Other studies have looked at the effect of the computerisation of newsrooms on issues of news content and format (Aronson et al, 1996; Russial, 1994; Sylvie & Witherspoon, 2002). Some have also tackled the effect on skill acquisition and distribution (Bromley, 1997; Cottle, 1999; MacGregor, 1997; Pilling, 1997), or work patterns and division of labour (Dunaway, 2000; Esser, 1998; Heath & Luff, 2000, Ursell, 2001).

Very few studies, however, have examined the processes through which news workers adopt multimedia technologies and the factors that shape those adoptions (Avils et al,

2009; Boczkowski, 1999, 2004b; Boczkowski & Ferris, 2005; Thurman & Lupton, 2008; Schmitz-Weiss & Domingo, 2010). Similarly, with a few exceptions, most recent scholarship on diffusion of multimedia has often ignored the tension between the news organisation's structures and systems, and the wider political and social external constraints. Despite the consensus to avoid technologically deterministic claims of multimedia adoption, little empirical work has justified this rhetoric. Few studies have explained the extent to which the organisational structures, work practices, and representations of users shape the use of multimedia. It is not clear what technological and editorial change takes place as a result of monitoring data, for example. This needs to be addressed, given that the use of personas – or representations of real people – is often motivated as much by political realities within new media organisations, as it is by the desire to address user's needs (Massanari, 2010).

Understanding the dynamics behind the adoption processes is, thus, essential to understanding the realities of online news production. For example, studying the tension between the business models and affordances of multimedia adoptions, and the political systems and conditions of the media organisation, would be useful.

Moreover, even those studies that looked at the processes and factors that shape adoption of technology had shortcomings. Although they offered useful initial charting for multimedia innovation research, they fell short of offering an in-depth typology of what 'multimedia innovation' entails. For instance, efforts were made to define 'multimedia production' or 'innovation' separately: either provide a general typology of 'multimedia,' a discussion of the general decision process of innovation, or a depiction of the changing workflows resulting from multimedia adoption (Aviles & Carvajal, 2008; Boczkowski, 2004a; Deuze, 2004; Jacobson, 2012). No sufficient effort has been made to explain the

dynamics of multimedia adoption, and the tensions between the internal and external actors, for instance, that might shape multimedia configuration within newsrooms.

2.5.2 The Limits of an Anglo-American ‘Universal’ Model of News

Secondly, over the past decade, most scholarship on technology and online newsrooms has been anchored primarily in the context of Anglo-American newsrooms (Klinenberg, 2005; Mitchelstein & Boczkowski, 2009; Boczkowski, 2001, 2004b; Thurman, 2007; Thurman & Lupton, 2008; Avilés & Carvajal, 2008; Dickinson & Saltzis, 2008; Domingo, 2008a; Quandt, 2008; Brannon, 2008; Colson & Heinderyckx, 2008; Paulussen, 2004). Most of these newsrooms operated within relatively similar and more liberal democratic political systems than countries in the Arab World. Similarly, the majority of theorising around multimedia innovation has largely adopted Western media frameworks. These often contextualised media within extreme dichotomies: independent-media systems (depicted as the American and Western European models), or censored state-owned media systems (depicted as in the Chinese or North Korean models). Apart from a few recent exceptions (Firdaus, 2011; Hallin & Mancini, 2012; Rugh, 1987, 2004), there was little consideration given to the spectrum ‘in-between’ these two extremes.

Moreover, there has been a particular lack of empirical research on how different political regimes influence innovation decisions and outcomes in the newsroom. Very few studies looked at innovation processes with media systems in non or quasi-democratic regimes¹⁹ (Domingo & Paterson, 2011; Liang, 2011). Moreover, most studies that focused on the influence of government ownership on journalism focused on the effects on content and the cultural product of journalism, rather than the actual processes of decision making behind that content (see, for instance, Rugh, 1987, 2004). Although this Western-centric

¹⁹ It is worth noting that there are potentially more studies on innovation in non-Western countries, albeit in languages other than English and are not indexed within global archives.

research has made important contributions by beginning to move technology to the foreground of newsroom studies, their findings are limited with respect to our understanding of the larger global context of this phenomenon.

At the same time, there is a dearth of Arabic studies on Arabic online news. Most studies long focused on traditional media newsrooms, or on traditional communication theories. For instance, studies have focused on agenda setting, gatekeeping, and media effects and users gratification theories; with particular attention to print and TV content. The few exceptions that embarked on examining online news have relied either on content and discourse analyses or on surveys (Zoghaib, 2011a, 2011b; Yunus 2011). Moreover, until the date of this dissertation, most works on the Arab Spring have been purely impressionistic (Sakr, 2013; Rachidi, 2012), often relying on techno-deterministic theorizing with little empirical evidence. The few exceptions focused merely on news framing of the uprisings (AlMaskati, 2012) or the content produced on social networks (Zoghaib, 2011c; Meraz & Papacharissi, 2013). No study examined ethnographically the Arabic newsrooms' changes resulting from the event.

There is, therefore, a need to expand the analysis of online newsrooms into wider geographical, social, and political settings, in order to empirically justify any claims about the universality of news production in the digital environment. This is particularly true when current empirical findings are contrasted with the growing use of the Internet in Arabic-speaking continents such as Asia and Africa. The rate of growth of Internet consumption in these regions has spiralled by an exponential 842 per cent in Asia and 2640 per cent in the Middle, compared to a mere 394 per cent in Europe and 154 per cent in North American, over the period from 2000 and until 2012. Moreover, despite the relatively nascent Internet adoption in Africa, its rate of growth in Internet penetration is the highest in the world reaching a staggering 3607 per cent over the same period

(Internet World Stats, 2012). As Figure 4 illustrates, Asia had nearly double the number of Internet users compared to Europe, and triple that of North America.

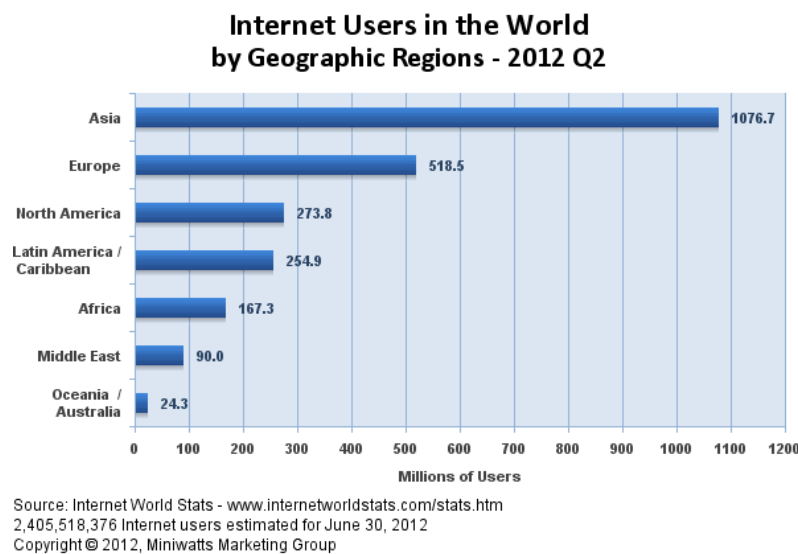


Figure 4: Internet Users by Region – June 2012 (Source: World Stats)

Non-Western Internet consumption is already having implications for the dynamics of the Web. ICANN launched its first non-Latin domains in the Arabic language in 2010, with Egypt, Saudi Arabic, and the United Arab Emirates having the first country codes written in Arabic script. This change is ‘about including [a] large part of [the] world into the Internet today’ and is seen as ‘a historic change,’ according to ICANN president Rod Beckstrom (ICANN.org, 24 May 2010; BBCnews.com, 5 May 2010).

This geographic change in web consumption presents an interesting opportunity to examine the social, cultural, and political implications that could shape online newsrooms practices, and shape the future of online news consumption. This study attempts, therefore, to examine that geographic dimension by looking at the Arabic online newsrooms and examining the potentially different contexts which can take part in shaping online news production. By looking at one cultural model, the study aims to bring

insights about the possible implications of news organisations' cultures for online news production strategies and business choices.

Another limitation of this Anglo-American focus relates to the acceptance of the 'universality' of news production models as a 'given' in most literature. The growing trend toward adoption of multimedia within news sites has given rise to a body of research explaining this phenomenon in terms of one universal business model (Thurman & Lupton, 2008; Saltzis & Dickinson, 2008). Most recent scholarship focused on use of multimedia as a result of a commercially-driven business model of news production (Thurman & Herbert, 2007; Frijters & Velamuri, 2009) in an attempt to maximise traffic. For instance, changes are seen by some to be connected to news providers' concern about the phenomena of declining newspaper circulation and TV audiences, which have been amplified by the rise of the Internet (Kiss & Brook, 2007; White, 2007). This body of scholarship has contributed to our traditional understanding of the political economy and media logic behind news production (Thompson, Altheide & Rasmussen, 1976; Schlesinger, 1978). But it has limited our vision of the underlying social and political dynamics of technology adoption, particularly given the different political contexts within which media organisations operate in different countries. To be able to thoroughly investigate the nexus of news innovation, it is important to position it within the social and cultural contexts of media.

2.5.3 Audience-Newsroom Relationship

In addition to the above, current scholarship lags in examining the newsrooms' conceptions about users on one hand, and the realities of multimedia consumption over time, on the other. Most studies have focused either separately on the processes in the newsrooms that shape adoption of technology and innovation or on the effect of these innovations on the audience. Thurman (2007) was an exception. He examined the size of

the American audiences for nine British news organisations, and conducted interviews with senior editors to elicit their commercial and editorial practices as a result of readership.

Nonetheless, there seems to be detachment between when changes in online consumption take place, and when and how news organisations react. Very few studies have tackled the actual difference between the perceptions and editorial strategies of news workers and the realities of news consumption (Boczkowski & Peer, 2001). Understanding how the process of adoption of new multimedia artifacts is shaped by the newsrooms' data on users' behaviour, and conceptions about users, could enlighten our larger understanding of the sociology of innovation in the newsrooms.

Moreover, there is an implicit underlying assumption in previous online news scholarship that news organisations always know what their online audience wants. This might seem logical at first glance, given the immediacy and accuracy of users' data that technology facilitates. The Internet news reader behaviour data, compared to TV or print, has certainly been faster and more immediately available to newsrooms. On the technical side, designing technologies with the needs and wants in mind of those who will be interacting with them also seems like an obvious way to ensure their successful adoption. However, despite the profound desire of web designers to understand users and their needs, some argue that 'the communication between the creators and users of environments often remains uncomfortably remote' (Lawson, 2006).

Massanari (2010) explains this phenomenon as a tension between user and designer – suggesting that the importance of users to the design process is minimal, or at least varies throughout a product's lifecycle. Moreover, users are diverse and heterogeneous. As Hugh Mackay et al. (2000: 738) argue, 'users are not a monolithic or straightforward

group, but are complex and fragmented in nature, and are attributed with varying significance.’ In this case, the ‘user’ may be functionally quite different.

Yet, there is not much empirical evidence to validate the extent to which designers and producers of Web content, particularly news content, actually know and react to their users. How do news organisations derive meaning from their audience data? And to what extent does this knowledge shape their adoption processes? Little scholarship has discussed how online newsrooms understand data about users. For instance, it is unclear how news workers respond to viewership, website *stickiness*,²⁰ downloads, or other traffic data.

The above limitations show that there is a need to analyse the working routines of online journalists and discourses about their jobs, their audiences, and the material and social conditions that shape the development of multimedia. To problematise ‘multimedia’ (or any technology for that matter), the interplay between the material (staff, size, technical resources) and the social factors (political, economic, professional culture, work organisation, etc.) of the newsroom must be considered. Moreover, widening the scope of this soci-material condition to other cultural and political scenes is necessary. For instance, studying the tension between the business models affording multimedia adoptions, and the political systems and conditions of the media organisation, would enrich our understanding of multimedia adoption. It will also help understand the diffusion of multimedia and the larger impact it is making on online journalism.

²⁰ *Viewship* refers to what URLs gets viewed; website *stickiness* refers to how long users stay on a particular site and its varied content; *downloads* are the content – video, audio or graphic – that users download; and *sharing* of content is often done through tools on the website allowing users to send the URL of content of interest to others through email or other social media like Facebook, twitter and Digg.

3 Chapter Three: Methods

3.1 Introduction

This chapter describes the methodological approach of this thesis and its rationale. It briefly reviews the research questions that motivated the research; presents the design of the case study approach adopted to address these questions, including the strategy for data collection and analysis; and highlights the key ethical considerations and challenges of this approach.

The chapter begins with an outline of the research questions and key propositions that anchor them. This is followed by an introduction of the key components of the research design, explaining the rationale behind choosing a comparative case studies strategy as the research method, and the criteria for selecting three Arabic newsrooms as case studies. Following this overview, the selected Arabic newsroom cases - *Aljazeera Net*, *Almasry Alyoum*, and *Almassae* – are described to show their relationship to the rationale behind the selection of each case and its embedded case. Next, the key data sources that inform the case studies are outlined with discussion on the data collection strategy. Since accessibility is a key aspect of this case study research, issues of accessibility are outlined for each case. This is followed by a discussion of key ethical issues tied to this study, including measures taken to ensure anonymity, safety, and data security. The chapter concludes by identifying the main empirical challenges that faced the research and how they were addressed.

The research design is based in part on the development of two general categories of factors believed to be shaping multimedia innovation in Arabic online newsrooms: the wider newsroom environment and the newsroom production setting. These categories helped provide the broader framework for observation and data collection anchoring the

study. As part of an initial mapping exercise preceding the data analysis, a typology of multimedia innovation that emerged from early fieldwork was also devised. The typology helped guide the initial data collection and data analysis, and was modified as the ethnographic work progressed. The study design section explains the design categories, and the role and features of this preliminary typology of multimedia innovation.

In order to buttress the internal and external validity of the case studies, the research design strategy deliberately permitted flexibility in the data collection stage. Being a case study method, it was equally critical to know what can be learned from each particular case on its own, through an in-depth analysis exercise (Stake, 1994; Yin, 1994). This ensured the specificities of each case were not missed and adjustments could be made according to unfolding events in the field. Meanwhile, it was important to simultaneously consider the similarities and differences across the cases by observing the above key components of design. The constant interaction between the within and cross-case analyses supported the identification of key issues and emerging themes at each level. To that end, each case was analysed in-depth as a separate whole, as well as a comparative part of a larger coherent whole.

Nevertheless, the study does not purport to generalize its findings to newsrooms or nations beyond the cases that were selected. It provides a picture of three locales at a particular time in history, which can serve future comparative purposes; and its value is expected to derive from further research building on the general themes identified in the limited set of case studies covered in this thesis.

3.2 Research Questions and Expectations

This research is an investigation of the processes of technological innovation in online newsrooms in the Arab World and the factors that shape decisions involving multimedia

production. Through adopting a series of qualitative and quantitative measures, the overarching goals of this research are to:

1. Analyse and map the processes of multimedia innovation inside different Arabic online newsrooms. Specifically, the study will observe the development and implementation of multimedia in three Arabic online newsrooms.
2. Understand the factors that facilitate or constrain the introduction of technological innovations by relevant actors in the newsrooms (especially those pertinent to news multimedia production) and external factors to the newsroom setting. This is through examining the role the material culture and socio-political infrastructures play in shaping innovation decisions and in how multimedia have progressed in each newsroom. As the chapter will illustrate, this approach looks at the processes and socio-political differences across newsrooms that shape their production rather than looking at technological artifacts as objects impacting these newsrooms. Examining the material culture does not separate the material technological innovation from society, and is expected to explain: what makes some innovative ideas work and others fail?
3. Focus on the Arab World, especially in the context of the Arab Spring news events; and identify issues or tensions around multimedia innovation that could be tied to this context. This study thus provides an opportunity to better understand innovation in other growing democracies.
4. Explore ways in which multimedia innovation in newsrooms might be shaping the content of news. What can innovation in information and journalism practices in general tell us about the way news on the web is constructed?

Theoretically, the focus of this research is situated within the recent wave of online journalism research which focuses on the ‘processes’ and actors of innovation rather than

on the ‘effects’ of innovation (Domingo, 2008b; Domingo & Paterson, 2011); and which takes a social-constructivist approach to the adoption of innovations. The mutual shaping of technological and social developments is, thus, at the heart of this approach: qualitative analyses of cases focus on the relationship between technology, social actors, and their context.²¹ Theories such as the Actor-Network theory and conceptions of Communities-of-Practice, which are discussed in the literature review chapter, will be tapped into, when necessary, to better frame the dynamics of these relationships.

The empirical data collected and analysed through these case studies are based on three diverse newsroom examinations that differ in technical, social, and business factors.

The overarching research question anchoring this research is: what social factors shape multimedia innovations in Arabic newsrooms? The study investigates three key research questions related to this theme:

Research Question 1: What are the key patterns and processes of multimedia innovation adoption in these Arabic online newsrooms?

In this aspect, the study would map the particular adoption processes and strategies that emerged in the newsrooms’ implementations of multimedia.

Research Question 2: What are the most significant social factors shaping multimedia innovations in these Arabic newsrooms?

The social factors examined will include both internal and external elements to the newsrooms, such as the political, economic, historic, cultural and organisational factors that shape the both the adoption processes and the technological artifacts adopted.

²¹ The theoretical framework is elaborated in chapter two.

Research Question 3: What broader implications do these innovations present for understanding the practice of journalism and its consequence for the construction of information on the web?

In light of the limitations discussed in the literature review, this study was undertaken with the expectation that there would be strong tension between technological innovations in multimedia production and the wider social contexts where they are adopted, which would foster a more local conservatism that would constrain innovation. While it is possible to hypothesise that the editorial strategies of each newsroom will vary depending on the specific locale of each media organisation where decisions are being made, this locale is shaped by the general cultural framework (of the mediascape at large) in each country, as well as the specific environment in each news organisation.

The thesis, therefore, was launched with the following expectations:

1. Political factors particular to each country might have an impact on the visions and decisions, as well as the actual implementation of innovations in the newsroom.
2. There are particular cultural and social characteristics to Arabic online newsrooms that shape their adoption of multimedia, which could challenge the universally-dominant model of news production. That the historic shift in European and American media systems toward the liberal model of commercialized, politically unaligned, or ‘catch-all’ media (D. C. Hallin & Mancini, 2012) might not be typical in other parts of the world.

3.3 Choice of Research Method: Comparative Case Studies

News is socially and politically ‘constructed’. It is the result of interaction of the news-making players with one another (Schudson, 2003, p. 186). Max Weber (1921, 1946) wrote of the social standing of the journalists as ‘political’ persons.

Earlier scholars that looked at print and broadcast media have stressed on the role of interpersonal, institutional, moral, and political factors shaping the news (Epstein, 1973; Gans, 1980; Kaniss, 1991; Roshco, 1975; Schudson, 1989; Tuchman, 1978). Scholars like Tuchman, Epstein and others have studied the newsrooms of print and broadcast media organizations and shown how understanding the organization of production is imperative to understanding the news as a cultural product. For instance, Gieber in a sociological studies on newspapers, concluded that ‘news is what newspaper men make it’ (1964: 180). Similarly, Gitlin argued in his study of organizational decision making in prime-time television that he could not ‘hope to understand why network television was what it was unless [he] understood who put the images on the small screen and for what reasons.’ (Gitlin, 1994: 13).

In light of the ‘socio-political’ nature of news, and to address the research questions, the study has thus adopted a comparative case study approach. Case studies are a common research method in sociology, political science, and psychology among other disciplines of the social sciences, and have contributed uniquely to scholarship exploring complex social, political, and organisational processes (Yin, 1994, 2009). Similar studies on the sociology of newsrooms have employed the case study method in their investigations (Boczkowski, 2004a; Corrigan, 2012; Domingo & Paterson, 2011; Schutz Weiss & Domingo, 2010).

Case studies often explore questions related to the ‘when’ and ‘why’ of a contemporary phenomenon that does not have a strong prior base of research to draw from (Yin, 2009). This method was seen as the most suitable strategy, since the phenomenon under investigation is not well researched and pertinent to the contemporary sociology of journalism within the context of 1) real-time events, and 2) the Arab World. Moreover, since this research investigates holistic characteristics such as newsrooms’ organisational and managerial processes, a case study strategy was deemed appropriate to capture the qualitative differences between cases. A case study also enabled the research to look at the processes of decision-making directly through participant observation, rather than relying exclusively on interviews with journalists.

3.4 Study Design

There are a number of theories that approached innovation in newsrooms from different perspectives, but none capable of explaining the changes taking place in journalism as a result of the Web, nor in relation to politically restrained media systems, such as in the Arab World. For instance, Michael Schudson’s classical analysis of the *Sociology of News* is a strong account of the economic, political, cultural, technological, and organisational factors that drive news production from the 19th to the 21st century (2003, 2011). But he bases his work primarily on American journalism, with some reference to British and other European media. He refers to media examples from Japan and Latin America only vaguely. Similarly, the traditional account of the ‘media logic’ that governs journalism by Altheide and Snow (1989), or the wider organisational innovation processes by Rogers’ *Diffusion of Innovation*, are very useful tools in understanding multimedia innovation. However, neither gives sufficient consideration to the political context of a social system that could trigger or restrain innovation in newsrooms. For instance, how can multimedia innovation happen when the state blocks access to the

Internet? And will the actors, media logic, and social values that motivate innovation be the same in such a context?

Similarly, theories that attempt to explain the dynamics and actors of change in society, such as the Actor-Network Theory and Communities-of-Practice, are important. However, these theories do not seem to provide an adequate framework for incorporating the changes taking place in journalism when actors include external ‘mechanisms’ (actors outside the news organisation) such as the government or the court. Chapter two presents a more detailed critique and discussion of these theories, and argues how no current communication theory is fully able to capture the medium of the Internet and its impact on innovation within the newsroom context.

With the value but also the limitations of these theories in mind, the thesis thus sought to develop a more empirically grounded theoretical framework by approaching the case studies without a pre-set theoretical lens. It engaged with these theories collectively, rather than focusing on one single theory prior to the field research. For instance, the study was open to a more empirically-grounded understanding of the concept of multimedia and the factors shaping multimedia innovation in newsrooms within the Arab World, while also informed by all of the aforementioned theoretical perspectives. Ultimately, the aim was to build on current efforts that explain how news and journalism are changing as a result of the Internet, with the hope of finding a theory of multimedia innovation in the newsroom.

3.4.1 Components of Design and Units of Analysis

One key aim of this research quest was to systematically identify the organisational and cultural differences of each newsroom and the ways in which they might have influenced innovation. To that end, two broad sets of factors were identified as key components for

analysis across the cases: the newsroom production setting and the wider newsroom environment – the context in which it operates. These components provided a preliminary analytical framework for the field study.

It must be stated, however, the intention of designing the below components was not to provide a stagnant measure of comparability across the cases, but to establish a broad framework that leaves room for examining the intricate complexities unique to each case as they unfolded. The priority of design was, thus, to illustrate the interactions between the (technological) innovations in each newsroom and the organisational, cultural, and political contexts within which they are situated. To that end, the initial framework played a useful role in identifying patterns of behaviour or recurring challenges to bringing visions of innovation into practice, while the design was kept malleable enough to incorporate new factors shaping innovation as they evolved. This approach prevented predetermining the outcome of the study, particularly when case studies are designed to enable the findings to emerge from the field research. Table 3 outlines those key sets of factors that might emerge as critical in shaping innovation in multimedia newsrooms.

Table 3: Key Design Components

Factors	Examples
NEWSROOM ENVIRONMENT	
Historical-Cultural Background	Anglo-Saxon/Francophone Journalistic Influence Language
Political Context	Support for Liberal-Democratic Reforms Level of Press Freedom, e.g., Press Regulation and Legal Protections Public (Financial) Support for Media Political Stability-Instability and Risks
NEWSROOM PRODUCTION SETTING	
Organisational Factors	Underlying Business Model Reach, Circulation to What Audiences Newsroom Size, e.g., Staffing Core Media, e.g., Print vs. Broadcast Origins Resources for Technological Innovation, e.g., Budgets Media Logic in Place, e.g., Routines, Perceived Constraints Key Actors in Decision Making

Conception of Users	Level and Interpretations of Site Traffic Feedback from Users Users' Behaviour on Site, e.g., Traffic Flows How Journalists Imagine Users
Industry/Technology	Technical Infrastructure Supporting Online News, e.g., Skills, Tools Identity and Strategies of Competing News Organisations Conceptions about 'Ideal' Design for Online News

A. The Newsroom Environment

The general assumption that motivated this thesis – that the historical, cultural, and political context of the Arab World will shape news provision in ways that differ from Western newsrooms – suggests another category of factors that must be examined. This includes factors that go beyond the inner settings of each newsroom to the broader external environment shaping the larger mediascape in each of the countries in which they are situated. The environment can be broken down into two key factors:

- a. The Cultural and Historical Context.** The cultural and historical setting of each country influences its mediascape and the wider cultural production in that country. Understanding this setting will pinpoint the possible differences, rather than similarities, among newsrooms when it comes to innovation. This involves examining factors such as the adopted journalistic schools, colonial influence, language, and other cultural aspects that could shape online journalism in these countries.
- b. The Political Context:** The political and regulatory contexts that govern the media systems in each country are equally important. These are factors that extend beyond the setting of the newsrooms, yet could influence the newsrooms' decisions economically and legally. The study looks at the regulations, political regimes, and press freedoms in each of these countries and how they shape decisions around content and innovation. It also explores the financial influence of

the state on the business of journalism. Taken together, these factors build on Hallin and Mancini's (2012) framework looking at the relationship between the political system of the nation-state and the legal and financial authority of its media model. Examining them will also help empirically test some of the dominant Western theorising on the 'universality' of online newsrooms practices (Boczkowski, 2011; Domingo & Paterson, 2011).

B. Newsroom Production Setting

Examining the material culture and infrastructures of the newsroom – which are the routines, processes, values, conceptions, actors, and other production factors that shape the visions, decisions and implementation of multimedia novelties – is also a key anchor in this thesis. Each newsroom's structure, conceptions, and locus of decisional authority differ and shape its decisions about news production. Examining them, thus, will be critical, especially to empirically testing the Actors-Network Theory or the social construction of technology model. It was important to examine this category on its own, as well as in relation to the external environment of each newsroom. As Table 3 outlines, the newsroom production setting can be broken down into three key categories:

- a. **Organisational Factors:** The dynamics of production inside each newsroom depend on the organisational setting. Innovation is often bound by the physical and business contexts of the newsroom, such as its financial, technological, and human resources, and its business model. Understanding the material and social culture of the newsroom – that is the organisational structures and media logic that influence the innovation visions and determine implementation decisions inside each newsroom – is vital. The study will, thus, map the processes and routines of multimedia production as well as the process of innovation in each newsroom. It

will also observe the key actors shaping decisions of implementation of these multimedia novelties.

- b. Conceptions of the User:** How members of the newsroom imagine their audience and its interests is a major element shaping the newsroom strategies for reaching and satisfying that audience. Factors pertinent to shaping the newsroom conceptions about the users, including data on patterns of users' behaviour on the site, impact the visions, strategies, and choices around multimedia production. Similarly, users' comments, feedback, and interactions with the news site immediately reward or punish innovation decisions. Understanding this component is, thus, vital especially as the 'user' becomes one of the key 'actors' in the innovation process. The study will assess how the newsroom staff imagines users and makes sense of traffic data, in deciding what multimedia novelties to adopt (or reject).
- c. Industry and Technology:** The technological development of the news industry, and more importantly, what competing news organisation do, can drive multimedia innovation in a newsroom. The economic considerations and the desire to create a better 'brand' and please users, constantly push news organisations to imitate (Boczkowski, 2010). Moreover, trends in news production and design often shape the newsroom conceptions of the 'ideal design' and format for news. Through interviewing the newsroom members, the study will assess how the industry's technological advancement shapes conceptions, strategies, and decisions around multimedia innovation. This will inform discussion about the 'critical mass' of diffusion of innovation (Rogers, 1990, 2003), and help better understand the extent to which such 'universal' business factors drive innovation in contemporary newsrooms across the world.

3.4.2 Typology of Multimedia Innovation

The literature provides an extensive definition of ‘multimedia’. Relevant to the methodological approach of this thesis, however, it is important to highlight that the term means slightly different things across news organisations. For *Aljazeera*, multimedia was understood in terms of wider ‘New Media’ – a term that meant to them ‘multiple distribution platforms’ and any artifacts that buttress content distribution, such as social media, mobile and tablet technologies. For *Almasry Alyoum* meanwhile, multimedia specifically signalled the use of videos, pictures and cartoons. For *Almassae*, there was a common understanding that ‘electronic journalism’ includes a variation of ‘real-time’ updates of news, interactivity and introduction of video; and ‘multimedia’ was seldom used.

Moreover, as noted in the literature review, no previous research has clearly defined what ‘multimedia innovation’ in online newsrooms entails. There was a need to provide a typology of online innovation in multimedia production, in order to dissect the concept before assessing how each newsroom manages online innovation of its news (e.g., multimedia). This is particularly since the depiction of multimedia production in the literature often varied across studies of news content, format, and design. This breadth of coverage is partly a result of the grappling in journalism studies with the demarcation of multimedia news production compared to traditional media.

As a remedy to this confusion, the research design started with a set of general questions to help typify the concept: what does it mean to innovate in an online newsroom? And how can we ‘detect’ online (e.g., multimedia) innovation? From there, categories evolved in form as the observation and interviews took place. The preliminary design set four key aspects of online multimedia innovation in the newsrooms, as a way to guide the initial data collection, especially the observation and interview questions. These were:

1. the front end design of the website;
2. the back end design of the website (e.g., architecture and engineering of the site);
3. multimedia content production (e.g., video and picture content made only for the web); and
4. related editorial novelties.

However, as the interviews and observations advanced, the typology was adjusted and extended to include the following:

Table 4: Typology of Multimedia Innovation in Online Newsrooms

Innovation	Nature of Innovation	Examples
News Content	News Content is the actual storytelling of news. It constantly evolves in format, style, and structure in order to cope with new presentations and services provided by the news organisation. It drives innovation in presentation and distribution as it is made online.	• News story format and style change to suit the web. • Original print content gets mashed up with an accompanying video or infographic in a new multimedia presentation of the story. • Creation of ‘polls’ on the website related to a news story.
Back-end (BE) Technology	BE is the technical infrastructures that support editorial and design changes. It includes all newly developed content management/editorial systems, applications, and related Information engineering that support the integration (convergence), presentation, and distribution of news content. It also includes technological tools that monitor users’ behaviour and web traffic.	• Using <i>Drupal</i> CMS to enable newsrooms to integrate video and textual content. • Introducing new Information engineering to sites and upgrading servers to improve site traffic on video streaming.
Front-end (FE) Design/ Presentation	FE is evolving presentations displaying news content (audio) visually to attract and engage users, and improve their experience on the site. It includes new designs and layout for the site interface, and innovative ways to customise and personalise users’ view of the site.	• Increased amount of visuals and flash animated displays to present and promote content. • Enabling user-personalised interfaces (using web 2.0 technology).
Interactivity Services (IS)	IS are all new services that increase users’ interaction, participation, and engagement with the news content, and enable user-generated content (UGC). It also includes features that enhance user-producer interaction online via social media, and other feedbacking systems. This also includes integrating social and citizen journalism in the news production.	• Introducing web live updates ‘hour’ in which reporter engages with users on a news topic for an hour. • Enabling comments, rating, and feedback by users on the website. • Feeding UGC and blogging into the news site.
New Media Packages	New media packages are dedicated new content in video, audio, animation, interactive infographics, or live TV	• Creating an interactive timeline map out of a news story. • Linking to or creating YouTube videos

	formats that were not available in the original medium of news production. NMP also includes live updates of breaking news content.	on the site. • Creating a dedicated TV channel online (live streaming)
Media Integration	The technological, structural, and spatial convergence of print, video, and audio content within the newsroom to enable faster and hybrid media production and access to multiple news platforms.	• Shift from ‘one-medium’ organisations to ‘news centres’ where news content is shuffled, redesigned, and redistributed in a number of ways
Distribution Media	Use of Facebook, Twitter, Digg and other (social) media channels to bring readers to online news.	• Establishing dedicated Social Media (SM) teams in newsrooms. • Enabling tools for sharing content through SM or email.
Distribution Platforms	Expanding access of news content onto new platforms, such as iPad, Smart Phones, Mobile Phones, etc. Touches on all above innovation aspects, including remodelling of news content to suit new platforms.	• Creating e-reader (e.g., iPad) and smartphone apps to showcase news. • Introducing SMS and email alert services. • Creating a ‘lite’ version of the website to suit mobile phones.

These key aspects of multimedia innovation and the routines, decisions, and processes around them were observed in the context of each newsroom. It was difficult for the research to adopt a particular rank or ‘hierarchy’ of the level of innovation sophistication between the newsrooms, as it was not possible to quantify innovations that were qualitatively different. Instead, the research examined the scale, resources, and complexities of each of these aspects in each newsroom. Moreover, both the observation and the interview questions focused on the particular decision making processes, actors, and patterns of implementation followed in multimedia innovation.

3.4.3 Rationale behind Choice of Cases

In general, the empirical data selected for this study were based on countries in the Arab World for two reasons. The first was to broaden the political and cultural contexts of research on contemporary newsrooms. This is what Shoemaker and Reese (1996) have called the ‘extramedia’ and ‘ideological’ influences, or the social systems that are likely to influence the content of media. A study of the Arab World was seen as an approach to widening the geographical and political scope of the newsrooms locales, in order to test

discourses about relative homogeneity and universality of newsroom practices. This is particularly important as the majority of current and past theorizing has stemmed from North American-European media models, and very little empirical work in newsrooms with different political and cultural contexts, such as the Arab World, has actually been conducted to verify the generalisability of these theories outside the Western world.

To extend this approach within the Arab World, the newsrooms selected came from three politically distinct countries: Egypt, Morocco, and Qatar. Each country has a unique political and social system that could influence its media. This enabled the study to examine the complexities of media systems that shape technological innovation in each newsroom. At the same time, the region as a whole falls under media systems of states in political transition, having been affected in one way or another by the so-called Arab Spring that has occurred since early 2011. Studying countries seeking to grow democratic systems and in various stages of relative political unrest, the study could observe new media models that might differ significantly from the patterns observed in Western Europe and North America.

Another reason for selecting multiple Arab newsrooms has to do with the innate organisational and individual differences likely to exist across these newsrooms. The goal was to build on previous empirical scholarship looking at online newsrooms. The dissimilarity in their vision and aspirations of innovation could provide insights into the varying management, business, and editorial values shaping innovation. Moreover, choosing newsrooms from different geographical and cultural locales could help empirically verify what many scholars have argued about the homogeneity of innovation practises in online newsrooms (Boczkowski, 2004b; Domingo & Paterson, 2011).

3.4.4 Criteria for Selecting the Cases

To that end, three Arab news organisations were selected as case study subjects. Specifically, the selection of each of the case studies aimed to reflect diversity in key organisational and extramedia aspects, looking at both the micro and macro levels. At the micro and organisational level, the three cases thus represent different 1) economic models and 2) core news platforms.

The economic dimension of the newsroom was important to assess how the size, business model, and business aspirations of each newsroom could shape visions and decisions about innovation. The selection criteria, thus, ensured covering business models varying from pure commercial to quasi-independent news organisations. Purely state media were excluded, however, as they presented a drastically different media model that was seen to deviate from the current media frameworks the study was building on. State controlled media have totally different newsroom settings and journalistic professionalism, and though very relevant to the political context of the Arab World, are beyond the scope of this thesis.

In addition to its business model, the size of each newsroom – in terms of its human resources, circulation, and production scope – was also factored in as a way to dissect the particular influence of technological and human capacities of newsrooms on innovation in multimedia production. The cases selected, thus, represent newsrooms that have ranged from very small to very large media organisations in order to examine the scale of newsroom resources and how it might drive multimedia technology adoption and innovation. Seeking media outlets of varying market sizes and ownership structures is appropriate with a case study method, which deals with the fundamental question of what can be learned from a particular case (Stake, 1994; Yin, 2009).

The original core platform (print versus television) of each online newsroom was also considered in order to address how processes and routines of media influence innovation as the newsroom adopts convergence and multimedia. This promotes understanding of how producing content for the Web links to the intricate differences in journalistic work originally anchored in print versus broadcasting.

In addition to the above criteria for selection, market leadership of the news organisation (number of users or audiences) was also considered; hence, all cases were leading news organisations in their respective countries. It was key to examine media models that ‘survived’ within their respective environments. Successful media organisations were seen to bring about more interesting dynamics of negotiating innovation, since media survival strategies are likely to require adaptation and innovation.

At the macro level, the newsrooms selected represented different political regimes. Morocco is a parliamentary monarchy, with the King continuing to exert a strong level of executive authority, despite an elected parliament. Media legislation in Morocco has gone through liberalisation stages since King Hassan II, then with his son, despite the persistence of many financial and legal constraints exerted on private media. Qatar, meanwhile, is an absolute monarchy of the Emir, with an advisory legislative council with limited authority. Aside from *Aljazeera*, the nation has very limited print and broadcast media production, and has strong government control of the Internet. Egypt is a presidential republic, with a bicameral legislative system. The country had a quasi-democratic system during Mubarak’s regime (1977-2011), where media was significantly liberated compared to his predecessors, yet its press laws remained restrictive for journalists. Since the 25 January 2011 revolution, however, the *Shurah* (Advisory) Council has elected the editors-in-chief of the main public newspapers. Moreover, the

Information ministry was annulled before being restored to power amid growing pleas to replace it with an independent authority for broadcast media.

An initial pilot study for this research included BBC Arabic (BBCA) – an Arabic online newsroom operating from London. Nevertheless, as the study’s theoretical underpinning evolved, it seemed too stretched to include the BBKA for the focus and comparative purposes of this these. This is particularly since the BBKA is run and situated within a non-Arabic political and cultural context. The initial data collection, however, did inform the study of the common newsroom production settings.

3.5 The Cases

Based on the above criteria, three newsroom case studies were selected for this comparative study: 1) *Almassae* in Morocco, 2) *Almasry Alyoum* in Egypt, and 3) *Aljazeera* Net in Qatar. Table 5 presents the key features of each newsroom. The study focused only on the Arabic sections of these newsrooms, with particular attention to the online news team in each of the newsrooms.

A ‘maximum variation sampling’ strategy was followed (Patton, 1990: 172) using a small number to elicit ‘important shared patterns that cut across cases and derive their significance from having emerged out of heterogeneity.’

Table 5: The Three Cases

Features	<i>Almassae</i>	<i>Almasry Alyoum</i>	<i>Aljazeera</i> Net
Portal	Almassae.presse.ma	Almasryalyoum.com	Aljazeera.net
Country	Morocco	Egypt	Qatar
Scale	Small	Medium	Large
Size of online team*	5*	55	90
Daily Circulation	145K	240K	40 m viewers in Arab World**

Business Model	Commercial/ independent	Commercial/ Independent	State funding / quasi- independent
Core Medium	Print	Print	Broadcasting
Political System	Parliamentary Presidency	Presidential Republic	Absolute Monarchy

* 2010 average circulation and staff records. The staff numbers represent only those working full-time in the Arabic online portal in 2010/2011 in each newsroom, and not the entire news organisation staff. Numbers are also based on the organisational charts and may not represent the actual staff working at all times (e.g., some vacant posts).

** It is reported that Aljazeera English has reached over 100 million households in 60 countries (Najjar, 2009:1)

3.5.1 *Almassae* Online Newsroom in Morocco

The first case study targets the Moroccan online newsroom of the *Almassae* Group news organisation. The Moroccan context presents a different political, cultural, and historical setting from the other cases. Its Francophone history also presents an important variable to investigate the potential cultural influence on the newsroom setting. Moreover, given that there has been relatively little attention paid to *Maghreb* countries – Morocco, Tunisia, Libya, and Algeria – in existing research on news production or on the sociology of newsrooms, the case presents an ideal model for not only testing the hypotheses of this research, but also providing a fresh perspective covering new uncharted locales for online journalism. The news organisation also stems from a print history for this newsroom which brings an interesting contrast to the other cases examined in this thesis. The print paper of *Almassae* was the most popular independent print daily newspaper in the country in 2010.

On the scale of parameters for choosing the cases, the *Almassae* Group case is the smallest. In terms of its financial and human resources, it falls amongst the small-scale news outlets, with only five full-time staff dedicated to its online newsroom, and a circulation of its most popular daily – *Almassae* – of less than 150,000 copies. The news group presents an independent/commercial model within a quasi-democratic political context.

Direct observation was conducted in the *Almassae* main newsroom in Casablanca for two weeks during October 2010. The participant observation also extended to virtual observation, as the researcher weekly monitored the portal until June 2013. Moreover, a total of 22 semi-structured interviews were conducted with the managerial, administrative, editorial, and technical staff. Since the online news staff was small in number, there was an opportunity to interview most members more than once. A number of informal interviews were also conducted with a few Moroccan journalists outside *Almassae*, famous Moroccan bloggers and media experts, to better understand the general cultural and political contexts of the mediascape in Morocco.

The research conducted qualitative analyses on a number of print issues of *Almassae* daily, *Almassae* Sport and *Almassae* political supplement were conducted; as well as; carried archival review of organisational documents, such as plans for the organization.

In addition to the review of archival designs of the website since its inception through the Internet archive, *Almassae* granted access to its Google Analytics account providing the website's traffic data. Aggregated traffic analysis reports were generated for the period from inception of the website to September 2013.

3.5.1.1 Embedded Unit of Analysis: The Arrest of *Almassae*'s Editor-in-Chief

Within the case study of Morocco's *Almassae*, an embedded case study was selected, again, to highlight the political context of media in Morocco and the way it impacts innovation implementation. The editor-in-chief and key owner of the news organisation at the time – Rachid Ninni – was arrested in April 2011 and held for over a year. This was following writing a controversial column in the newspaper amid the political unrest sweeping through Morocco at the beginning of the year. The incident presented an excellent opportunity to examine the tension between the political constraints of

journalism in Morocco and the innovation practices of the newsroom. This was particularly helpful to test some of the hypotheses of this thesis.

Interviews were conducted with staff members via Skype after the arrest of Ninni. Moreover, a particular manual log was devised to observe the key multimedia features and design changes in the website during the same period. During 2011, clips of video and print media coverage on *Almassae's* Ninni arrest were collected and analysed as part of the archival work to inform the sub-case.

3.5.2 *Almasry Alyoum* Online Newsroom in Egypt

The second case study of *Almasry Alyoum* represents a model of an online newsroom that has originally stemmed from a print-core; its independent print daily has been ranked among the most read newspapers in Egypt during the period of study (Bin-Fahad et al., 2010, 2012). On the scale of three parameters mentioned above, *Almasry Alyoum* also provides an example of a medium-sized news organisation, and the case is situated in the middle compared to the two other cases. *Almasry Alyoum* is a medium scale news business, an independent (commercial) newspaper operating within the quasi-democratic political context of Egypt.

The data for this second case study involves examining the online newsroom of the *Almasry Alyoum* news organisation as it adopted multimedia innovation. In doing so, the study looks at the processes, work flows, and routines that shaped decisions of multimedia production and design within this newsroom. It also looks at the different organisational and political challenges that constrained the realisation of its visions of innovations. Three consecutive participant-observations were conducted – each for two weeks – by late September 2010, early January 2011 and early March 2011. During that period, a total of 38 semi-structured interviews with members of the print and online

newsrooms at different levels (managerial, editorial, and technical) were conducted. This was complemented by qualitative and quantitative analyses of the online news website's performance and design evolution during that period. Multimedia design features were analysed qualitatively, and quantitative site traffic data, in the period between Jan 2010 and June 2012, were collected from Google Analytics data and analysed.

3.5.2.1 Embedded Unit of Analysis: The 25 January Egyptian Revolution

An embedded case was chosen within the case study of *Almasry Alyoum* as an example of the Egyptian political context, looking at how innovation took place as the 25 January 2011 revolution unfolded. It examines the particular innovation processes during the period between 25 January and 12 Feb 2011 – ending with President Mubarak stepping down. As an embedded unit of analysis, the sub-case helps contextualise the main case study illustrating how political factors – especially during a period of political flux – shape innovations within newsrooms. A series of interviews with the newsroom management, editorial, and IT staff were shortly after that period. Observation of the website development during and after the event was also conducted in parallel.

3.5.3 *Aljazeera* Arabic Online Newsroom in Qatar

The Qatari news organisation – *Aljazeera* – was selected as the third case study. The case focused particularly on the Arabic portal www.Aljazeera.net and its dedicated online newsroom in the organisation, given that it targeted an Arabic audience, which brought it in line with the other cases. The online newsroom builds on the broadcasting core medium of *Aljazeera* as the largest Pan-Arab satellite news channel in the region. This was seen to bring an interesting contrast to the other organisations examined in this thesis. *Aljazeera* has also been the focus of much Arabic and English media research, both for its popularity and for its controversial reporting, which seem to defy conventional

expectations. The news organisation has been portrayed as one of the key organisations in conflict with many Arabic regimes; many of its offices have been banned or closed in some Arab countries, including both Morocco and Egypt. This presents an interesting internal cultural setting, but also validates the extent to which political settings in the region can influence online journalism.

On the scale of the three parameters guiding case selection, the *Aljazeera* case study is situated at the far end. In terms of its human resources, it falls amongst the large-scale news outlets; its Arabic online newsroom hosts over 90 full-time staff. Financially, it is also considered a very large-scale news business with an estimated annual budget of over US \$100 million. This was seen to perfectly complement the comparative analysis with other small and medium scale news organisations. Moreover, the Network has a unique hybrid business model – one that mixes private and state income – being largely funded by the state since its inception, on top of its own generated revenues. Despite its quasi-state ownership, the organisation has some editorial independence attempting to adopt a ‘publicly-funded but independent-minded’ brand of journalism (Zayani & Sahraoui, 2007: 62); aided by the separation of its board of directors (on which sits the Qatari Emir) from the organisation’s editorial structure and professional journalistic values²². The case study also presents the context of a quasi-democratic political system, albeit under an absolute monarchy with full authority granted to its Emir²³ (Rathmell & Schulze, 2000; Zayani & Sahraoui, 2007; Miles, 2005; Saif, 2008; Lambert, 2011).

A total of 28 semi-structured interviews were conducted with key editorial, technical, and managerial staff, in addition to two weeks of observation in the Arabic online newsroom, and one day of observation in the English newsroom. Moreover, informal talks with

²² This thesis is not about the journalistic values of Aljazeera, however; it is worth noting that observations and interviews found that Aljazeera generally adopted high professional journalistic standards and quality control in the online newsroom.

²³ More details about the Qatari political reform in Sections 6.2 and 6.3

journalists and staff working there took place to elicit the political context of the news organisation and the different constraints. The study enabled the archival review of all *Aljazeera* editorial policy, its related organisational structure, code of conduct, and marketing forecasts. However, access to the traffic records of *Aljazeera* was not possible. In lieu of this data, the marketing team shared a number of Google Analytics reports for selected months during 2010 and 2011.

3.5.3.1 Embedded Unit of Analysis: Coverage of Egypt's 25 January Revolution

Aljazeera's coverage of the Egyptian 25 January 2011 revolution was selected as an embedded case study, in order to highlight the ways in which this political event impacted the website's innovation. *Aljazeera* became itself part of the news events it covered, as the channel was heavily criticised for 'stirring' the Arab Spring, especially in Egypt. As a result, the *Aljazeera* office in Egypt was shut down on 30 January 2011, its licence was withdrawn, and its broadcasts were scrambled on the state-owned Nile Satellite. Moreover, the online news site suffered a number of hacking attempts during February 2011 (*Aljazeera* website, 2 February 2011) from Egypt, Israel, and other countries.

Internally, *Aljazeera* Manager Waddah Khanfar resigned in September 2011. These constraints have impacted the news organisation in different ways. For one, it influenced the technical and financial resources deployed to counter the website cyber-attacks and the scrambling of its broadcast waves. Meanwhile, the coverage of the 25 January revolution led to a number of innovative approaches to multimedia production on the news site. How the online newsroom reacted to the coverage of Egypt was explored to understand the interactions between the political context in the Arab World, and the dynamics and processes of multimedia innovation. And although the political context in this instance was outside Qatar, this embedded case study highlights the situation for

regional news organisations situated within politically volatile regions such as the Arab World. This example helps broaden the concept of ‘state’ influence on media systems.

This sub-case also provides a good contrast with the Moroccan embedded case study. The scale and size difference between *Almassae* and *Aljazeera* factored in how innovation was implemented to overcome a crisis. The enormous resources of *Aljazeera* enabled it to manage the political constraints quite differently than in the case of *Almassae*.

3.6 Data Collection

Table 6: Sources of Data Collection

Sources of Data	Morocco	Egypt	Qatar
Online Archival Records: Previous website designs since inception on the Internet archive	✓	✓	✓
Documentation: Editorial guidelines, plans, policy documents, organisational structures/charts, media coverage, internal records, and budgets	✓	✓	✓
Semi-Structured Interviews: With management, editorial, and technical staff, as well as media experts in the country (professors, famous bloggers, etc.)	✓	✓	✓
Direct Observation: Attending editorial meetings, observation of work flows, news cycles, editorial strategies, innovation decision processes/patterns, key actors, and dynamics of innovation in the newsrooms	✓	✓	✓
Participant Observation: Taking part in editorial meetings, assisting in social media tracking, and reviewing/moderating users comments on the sites	X	✓	X
Physical Artifacts: Review of content and news management systems, available servers, tools, and software used in multimedia operations	✓	✓	✓
Websites users traffic data/log files: Review of Data collected on users’ behaviour and users’ interactions (comments) on the news websites	✓	✓	✓

Within the comparative case study, a multi-method approach was pursued to address the research questions from multiple data sources, rather than relying on a single basis of evidence. This ensured data was validated and increased the reliability of the research investigation.

The following section outlines the key components of design and data sources developed. The sources obtained in each case were dependent on the availability, opportunity, and accessibility afforded in each of the newsrooms.

3.6.1 Participant Observation

Paterson and Domingo contend that ‘any technological development is embedded in an adoption process where subjects make conscious or unconscious decisions’ that only close observation can trace (2008: 2).

In order to examine the dynamics of multimedia adoption in newsrooms, participant observation was thus conducted where possible to enable direct observation of behaviour. The observations were conducted in three Arabic online newsrooms: *Aljazeera* Arabic in Doha, *Almasry Alyoum* Egyptian online newspaper in Cairo, and *Almassae* in Casablanca. A total of 14 to 41 days were spent in each online newsroom. There was also a brief exposure to the *Aljazeera* and *Almasry Alyoum* English online newsrooms.

Each of the observation exercises examined the general workflow and dynamics of production and the decision-making processes inside the newsroom. The observations particularly recorded how the teams of these online newsrooms interacted with the available multimedia technology, with particular focus on the editors, multimedia designers, journalists, and IT technicians. As noted in Table 6, the observations also included assessing the key actors involved in the decision-making process and the power structures within each newsroom, looking at opinion leaders and change agents. Finally,

the observations attempted to identify the gaps between what the journalists said in the interviews and what the realities of production and decision-making appeared to be.

There was an opportunity to take part in a specific participant observer role – where the researcher took part in some tasks inside the newsroom – at the *Almasry Alyoum* news organisations. It was more difficult in the larger organisational setting – as in *Aljazeera* – to participate in work as it could not accommodate interns outside its on-going internship programme. Nevertheless, *Aljazeera* allowed the researcher to sit in the newsroom with a dedicated desk with all the key editorial systems (albeit without access to add content). The researcher was also allowed to attend morning editorial meetings. Similarly, with *Almassae*, given that the online news team was very small, they were extremely busy, and despite being very accommodating, it was difficult for them to devote the time necessary to teach a new intern.

3.6.2 Semi-Structured Interviews

In total, 88 semi-structured interviews²⁴ were conducted, in addition to tens of informal talks with journalists outside these newsrooms, including bloggers and media experts. The number of news professionals working at *Aljazeera* Arabic, *Almasry Alyoum* and *Almassae* online newsrooms are 90, 55, and 8 members respectively.²⁵ This number includes editors, editor assistants, proof readers, graphic designers, technicians, and journalists, in addition to senior management. Personal communications were also constantly exchanged with the newsrooms via Skype, Email, SMS, and Whatsapp. Table 7 outlines the total number of interviews conducted in each of the three newsrooms studied.

²⁴ An additional 21 interviews were conducted at BBC Arabic

²⁵ Although five *Almassae* staff only were dedicated to the online news website, the marketing manager, the print editor and the assistant editor support the website on a part-time basis.

Table 7: The three Case Studies: Key features:

Country	Case Study	Number of Interviewees	Number of Interviews	Embedded Case Event
Morocco	<i>Almassae</i>	18	22	20 February 2011 uprisings in Morocco
Egypt	<i>Almasry Alyoum</i> (Arabic)	25	38	25 January 2011 uprisings in Egypt
Qatar	<i>Aljazeera Net</i>	23	28	25 January 2011 uprisings in Egypt
Total		66	88*	June 2010 to June 2013

* A total of 109 interviews were conducted, including those carried with BBCA staff, media experts and bloggers.

As the news cycles in these online newsrooms are 24/7, there are shifts among news professionals with similar jobs. For that purpose, and because of the limitation of time, the research focused on a representative sample of four key jobs: editors, journalists, multimedia designers/technicians of each of the news organisations examined in this study. A number of key actors were interviewed more than once, especially those involved in technology and design. *Almasry Alyoum* has two dedicated portal managers who were also interviewed.

The graphs below illustrate the distribution of roles, gender, and age among those interviewed, and is representative of the actual newsroom distribution. The graphs show that *Aljazeera Net* was the oldest and most male dominated of the three newsrooms, while *Almasry Alyoum* was the youngest and most gender balanced.

Although the majority of roles interviewed were similar across the cases, the number of interviews differed depending on the structure and size of the news organization and the time limitation of field visits in each newsroom. As Table 7 illustrates, the highest number of persons interviewed was carried at *Almasry Alyoum*, followed by *Aljazeera*, then *Almassae*. Likewise, the highest number of interviews per newsroom was conducted at *Almasry Alyoum*.

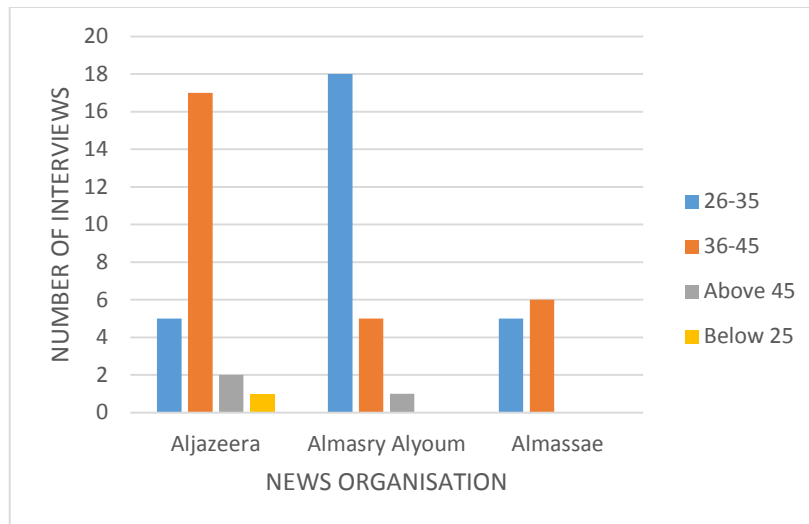


Figure 5 Age distribution among interviewees

This is because the researcher had opportunity for more field visits to the *Almasry Alyoum* newsroom.

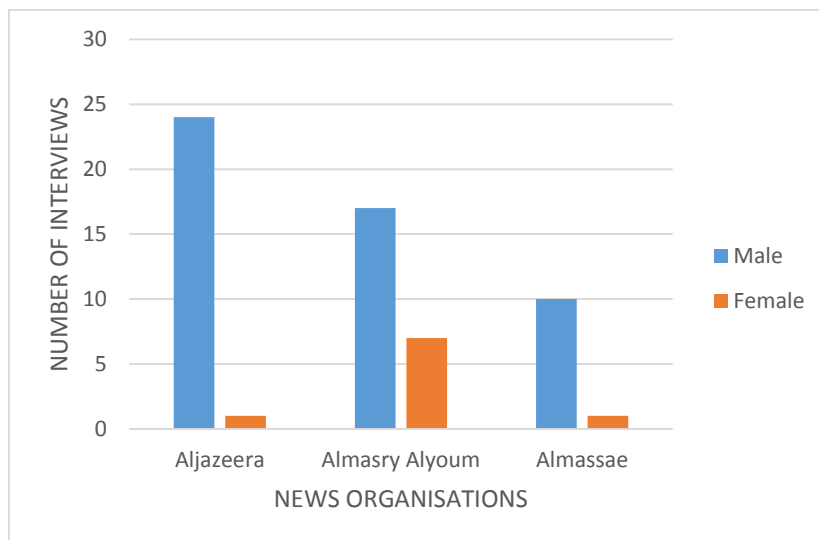


Figure 6 Gender distribution among interviewees

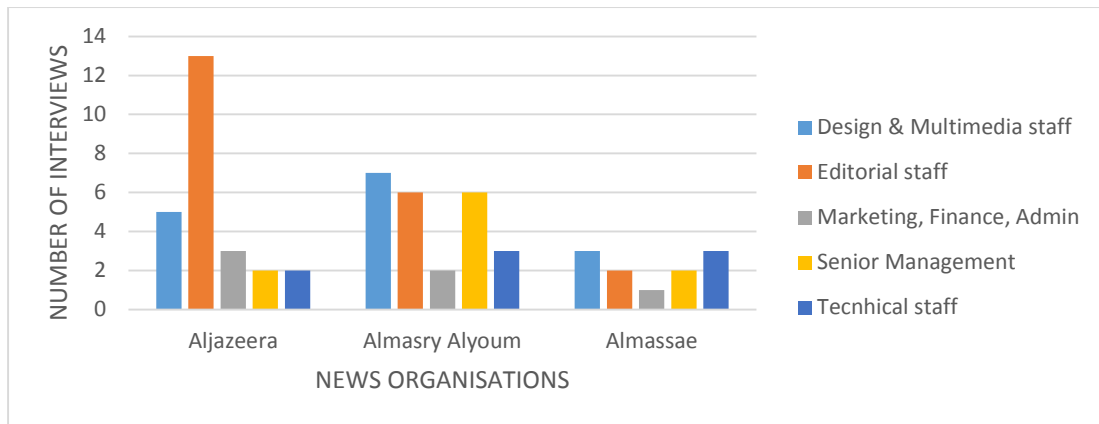


Figure 7 Roles distribution among interviewees

Specific themes were targeted for exploration through the interviews, according to the key components established above and specific questions targeted each component.

Each interview was recorded with a particular code identifying the initials of the interviewee, the place, the job, the number of interviews (in case the interviewee was interviewed more than once), the duration of interview, and the date of interview. Any non-formal or 'off-record' interviews were also noted in the log. No other identification of the interviewee was used in the analysis or reporting of findings. Moreover, and since political events influenced the security of staff, every possible caution was taken to preserve anonymity when reporting the results of the interviews.

3.6.3 Traffic Analysis of News Sites

In addition to the participant observation and interviews, an archival traffic analysis of the three news sites was conducted. The specific level of analysis afforded depended on the availability and access to the data provided in each newsroom. The purpose of the traffic analysis was to validate the perceptions of the news staff by examining the actual behaviour of users on the websites. Data available covered 2010 to 2013 in most cases, although data covering only selected months between 2010 and 2012 were accessed on *Aljazeera.net*.

Initial analysis was carried out using Webometric applications such *Google Analytics*; and data aggregated was parsed to Excel software for further statistical analysis. Visual presentation of data was done through the use of *SPSS* tools or Google Analytics own visualisation graphs.

3.6.4 Other Sources

As per Table 6: Sources of Data Collection, other methods used for data collection included:

- examining the physical artifacts, such as looking at all technological and editorial news management systems;
- documentation review, including all accessible human resources (HR), financial and editorial records of each news organisation, editorial guidelines and policies, organisational charts, staffing structures, budgets, and other archival data, as available for each case study site. Annual plans for innovation and technological developments were available but only at *Almasry Alyoum*;
- a daily exhaustive review of each of the websites' design, including developing a small log of key multimedia design/feature changes during 2010-2013. To complement that, a review of the websites' older designs was carried out using the Internet Archive tool www.archive.org recording key design changes for each news site. This was seen as a potentially useful source to assess the temporal aspects of innovation and the cycles and frequencies of change. However, no systematic quantitative content analysis was conducted on this data.

3.7 Data Analysis

The research adopted Yin's (2009: 41) model for ensuring internal validity, external validity, and reliability of cases in the analysis strategy. This meant focusing on pattern

matching across the cases, building explanations, and replicating the logic within and across the three cases. Nevertheless, the analysis allowed some flexibility in incorporating observed differences particular to each case beyond mere cross-cutting comparisons of the similarities. This strategy was seen as useful to enable the incorporation of new insights and any causalities inferred in each case. A thematic analysis (Miles & Huberman, 1994; Weiss, 1995) was, thus, devised building on the provisional key components of research design and the initial units of analysis. New themes were then recorded as they emerged from the data, and required slight revision of the design. This iterative process helped fine-tune the research design as the field work unfolded.

Nvivo software was used to code and analyse the raw data collected at an early stage of the data collection. Log files came with analytical summaries, directly from the news organisation – as in the case of *Aljazeera*, or through access to the Google Analytics tool which allowed direct generation of analysis reports. All reports were then indexed and coded onto Nvivo.

3.8 Ethical Issues

Data gathering and analysis followed the guidelines provided by the University of Oxford's Central University Research Ethics Committee (CUREC), and the appropriate paperwork was completed and signed off through the normal review processes. Prior approval from the Inter-Divisional Research Ethics Committee (IDREC) was secured at the method designing stage (IDREC, March 2010). No further approvals were sought for the latter phase of research since no major changes were introduced in the method design.

The primary ethical issues in this research are related to handling the data of subjects during and after the observations. For instance, the research ensured all interviews were recorded only with the permission of the participants. Every effort had also been made to

keep subject's anonymity when quotes were politically or organisationally sensitive, and could put staff at risk. Moreover, the log of interviews was intentionally removed from this thesis annex, in order not to jeopardise the subjects' personal safety²⁶.

Written permission was sought prior to recording interviews or quoting participants. Also, before and after each interview, the researcher iterated the confidentiality and strict subjects' anonymity of the research policy. Whenever a participant did not consent to being recorded, the interview was conducted off the record. Similarly, all observation notes were kept in a secure location.

Despite proactive measures to ensure confidentiality during interviews, there was the challenge in some instances of conducting interviews within a confined isolated room. This was particularly true in the cases of Egypt and Morocco, where the meeting rooms were constantly occupied, and all staff was sharing a common space. Moreover, during the first round of interviews in *Almasry Alyoum* (Egypt), the news organisation had been undergoing a major restructuring of its offices. As a result, the staff was split across two buildings, which caused some disorder in the schedules and available free rooms; this raised difficulties in finding an empty room. To overcome this challenge, the interviewing strategy focused on generic initial questions during instances when there was a less private interview setting, and reserved the more personal and sensitive questions for the second round. On several occasions, the only place to conduct an interview was the cafeteria (at the newsroom or outside) which provided a noisy, but comfortable setting. Although these settings were far from ideal, the researcher had to deal with the reality of newsrooms' work practices.

Moreover, some interviews required being in front of the desktop computer to observe the process of news management and design which the journalists adopted. The newsrooms

²⁶ Copy of the interviews log could be furnished upon request of the examiners

were all situated in open shared space; it was difficult to maintain absolute confidentiality. Nevertheless, as these instances were focused on understanding the process and tools used, it was deemed appropriate to conduct these interviews. Every caution was taken to avoid sensitive or political questions in such settings.

There was an ethical concern about the safety of interviewees in light of the security situation in the case study countries (discussed further in the Challenges section 3.9). The initial strategy for reporting was to reference the post or title of the subjects interviewed, but not their names. However, after January 2011, a decision was made not to attribute political opinions to a staff member's position as an ethical and cautionary measure to ensure the safety and security of staff.

3.8.1 Data Storage, Safety, and Security

All interviews were recorded on a digital recorder and observations were recorded in a field study notebook. Most observation notes were later fine-tuned and processed in a word document on the same day. Moreover, all interviews were carefully logged, both manually and electronically. A backup on two devices was also made to ensure all observation notes and interview recordings were safe.

Although every effort was exerted to ensure smooth and reliable handling of data, there were some challenges to transferring and storing large data in some instances during the field research. For example, in a few instances, especially in Morocco, access to a larger server and the university VPN connections were hindered due to slow Internet connection or other technical challenges. Also, the weather in Egypt and Qatar was sometimes problematic for the safety of interviews data collected as temperatures at times rose to 48C. In such instances, immediate transfer of the digital recordings was done to ensure safety of interview data. During the *Aljazeera* visit, two interviews were conducted

outside the newsroom, and a contingency plan of using two recording devices was made to prevent any loss of data that could result from the melting of digital recorders. In Egypt, a smartphone was used once to record an interview when the batteries of the digital recorder ran out, but data was immediately transferred to a secure encrypted device and erased from the phone shortly after the interview. Moreover, it was not possible during the actual field work to use the Oxford University servers to back up the data. For that purpose, an external portable HD storage device was used in addition to the laptop to ensure a second secure backup of all collected data was available until returning to the University from the field visits.

Once back to a workstation in Oxford, all aggregation, encryption, and backup measures were taken to ensure the safety and security of collected information. TrueCrypt software was used to encrypt data files. Moreover, all recordings, transcripts, and observation notes were backed up on the University *Tivoli* backup and storage managing system. Regular virus checks were also conducted.

3.9 Challenges and Limitations

In addition to the minor technical challenges of data storage and security above, the research faced a few common challenges across the newsroom that hindered the access to information from and about the newsrooms. More detailed challenges to each case are outlined in the respective chapters.

Firstly, access to news was problematic due to the unfolding of the Egyptian revolution beginning 25 January 2011 and the Internet block. Following local online news in Egypt from Oxford during the four days of Internet block was not possible, except through the sporadic and very limited cyber activists' tweets or blogs. Even *Almasry Alyoum's* own portal traffic, which started to broadcast the second day after the block, was not as regular

as before (please see section 5.7.1.1 p. 209). Contact with key liaison points at the newsroom was also lost during that period. It was not until March 2011, during the second field visit to Egypt, that contact was re-established with the newsroom staff.

Secondly, because the political situation during the early days of the uprisings was dangerous, the security of the newsrooms was a major issue of concern. Journalists at *Almasry Alyoum* and elsewhere were harassed, detained, and sometimes shot by the Egyptian police. *Aljazeera*'s Cairo bureau was also raided and closed by the government. Likewise, *Almasry Alyoum* staff was very apprehensive about facing an imminent raid or state decision to shut their office. *Almassae*'s Editor-in-Chief Rachid Ninni was also arrested in June 2011. This political crisis affected the staff openness to share information. Members in the three newsrooms were very nervous about sharing details of what had happened, and a general sense of wariness and tension prevailed in communications. For instance, following the arrest of Ninni in April 2011, staff were reluctant to make any 'official' statements. Upon the closure of the *Aljazeera* in Cairo in February 2011, *Aljazeera* Net staff had the same reluctance to speak about the events or how they impacted the portal. Likewise, in *Almasry Alyoum*, some journalists preferred not speak whilst in the newsroom.

In all the three instances, building trust with the newsroom was through constant reassurances about the subjects' confidentiality and anonymity of the research policy, inviting the staff to non-formal interviews outside the newsroom, and in some cases, delaying key issues until the sensitivity surrounding them had decreased. Feedback was elicited from *Almassae* and *Aljazeera* staff over six months after the events took place, and when staff felt more relaxed. While this introduced other issues around the accuracy of recall, it was deemed better than missing this vital information.

These challenges of access placed limits on the quantity and quality of data available in some instances. The analysis was done on all available and accessible data rather than the ideal hoped for at the design stage. Despite the effort taken to ensure validity, it is acknowledged that the cases studied have their limitations.

Also, with any set of comparative case studies, there is no potential to generalise beyond the cases. The analysis attempted to tease out the key patterns of similarities across the cases; yet, it does not by any means claim to extend the generalisations beyond those cases. Instead, the thesis aims to discover patterns of relationships with the case studies of unique online Arabic newsrooms. There is potential for further case studies to add to or subtract from the validity of these patterns to the degree that they inform further research on newsrooms in the region and in newsrooms in similar political contexts.

4 Chapter Four : *Almassae*, Morocco: Politics Halting News

Innovation

4.1 Introduction

In October 2010, things were looking up for the *Almassae* online news team. It was about to launch three additional publications, and had an ambitious plan to convert the newspaper portal to a truly interactive news portal independent from its parent newspaper, rather than with an incremental facelift.

At this time, Rachid Ninni – editor in chief, co-owner of the *Almassae*²⁷ news organization, and the first columnist in Morocco – was pursuing a vision. He was about to hire a team of journalists to bring minute-by-minute news, photo, and video content to the portal. His aim was to bring ‘content which offers more than a mere ‘shovelware’ copy of what the newspaper presented,’ paying more attention to the quality and originality of the online news site (Personal interview, 22 October 2011).

But on 28 April 2011, his plans came to an abrupt end. Ninni was arrested and later sentenced to one year’s imprisonment for ‘attacking public figures close to the King in his daily columns’ (Daadaoui, 2011; International, 2011). The portal’s development halted. During the following period, and almost two years after the online plans were sketched, *Almassae.press.ma* had hardly made any changes in its multimedia design or services.

The story of Ninni and *Almassae* encapsulates the significance of the political limitations on Moroccan media and how they shape innovation within online news organisations. While this was a dramatic event, it highlights the existence of risks to news media when they cross certain boundaries. The charges against Ninni were similar to those levelled

²⁷ The name *almassae* means ‘the evening’. In the Arabic language ‘al’ preceding any word signifies ‘the’. For instance, *Aljazeera* (i.e. the Island), or *Alarabiyya* (i.e. the Arabic [channel]).

against other independent Moroccan journalists. There are also less dramatic aspects caused by the imposition of large state fines on media that cross these boundaries, and which make *Almassae*'s problems similar to those of other Moroccan news organisations. For example, in 2010, Abu Bakr Jama'i saw his *Le Journal* decline for similar offenses tied to criticising public figures (Daadaoui, 2011; Amnesty International, 2011).

4.1.1 The Case Study Approach

The methods chapter details the methodological approach of the case at length. Briefly, this case study of *Almassae* was based on two weeks of participant observation of *Almassae* newsroom in Morocco in October 2010. It also included twenty two formal, semi-structured interviews with news editorial, administrative, managerial and technical staff, as well as, tens of informal discussions with bloggers, journalists and electronic media experts in Morocco. Archival review of both the print issues and the online portal since inception, was conducted, in addition to the website traffic analysis until September 2013²⁸.

This case study was proved to be unusually challenging, compared to the other case studies, for a number of reasons related to access. First, the Moroccan Arabic dialect – *Darija* – similar to all Maghreb dialects in North Africa – is foreign to the rest of the *Mashreq* (East) Arab World, especially to the Egyptian dialect. The linguistic melange of Berber, French, and Arabic, has made *Darija* distinctively different to Arabic, particularly as Moroccan media is not widely consumed in the rest of the Arab World. The initial strategy was to ask the interviewees to speak in whichever dialect they preferred. However, the difficulties of understanding the *Darija* became apparent. Asking the team

²⁸ It is worth noting that the data available on Google Analytics only covered the site traffic since its revamp in April 2010. No data was available on the initial portal design

to speak in Modern Standard Arabic²⁹ would have undermined the spontaneity of communication and possibly jeopardized the fluency of the interviews. As an alternative, I relied on speaking in French, it was used almost as a first language by many of the newsroom staff, given the deep francophone culture in central Morocco. In some instances however the interviews were held in three or four different dialects: *Darija*, *Amazighi*, French colloquial, or when all failed, Modern Standard Arabic.

A second challenge was accessibility to the team. Despite the immense cooperation and hospitality of *Almassae*'s team, like all news organizations, they were constantly under the pressures of a timeline before every print deadline. This pressure equally touched the online team, particularly since they were under-staffed. The absence of the Editor in Chief following his arrest in April 2011 also disrupted the organisational and editorial dynamics of the team; and, in turn, had its toll on the staff workload.

Moreover, most of the print team had to leave around four or five in the afternoon, shortly after the issue had gone to printing; and it was often difficult for the online team to remain at the office. The Webmaster usually took her work home, as the online publishing work would primarily revolve around ten o'clock at night. Observing the practices online of the Webmaster after official working hours was, thus, difficult. As an alternative, the news site was observed at 10pm every night, during the period of the visit.

4.1.2 Outline of the Chapter

This case study examines the initiatives to innovate within one *Maghreb*³⁰ news organisation: the Moroccan *Almassae* Group, looking at the different factors that shaped its multimedia innovation. In particular, the chapter assesses how the political context,

²⁹ Although Modern Standard Arabic is widely understood in written and spoken media across the Arab World, particularly by Pan-Arab media; it is not spoken in everyday life.

³⁰ *Maghreb* refers to North African countries, namely Algeria, Tunisia, Morocco, and Libya.

with the advent of the Arab Spring and the Moroccan February 2011 uprisings, has exacerbated, and at times accentuated, innovation processes within the *Almassae* newsroom. At the same time, it illustrates how, within the limits imposed by this political context, the news organisation has sought to create a closer connection to its users, based on its conceptions of its online news readers, innovation in news around the world, and the dynamics of innovation inside the online newsroom.

This chapter begins with an outline of the wider media environment in Morocco, briefly looking at the historical, political, cultural, and economic contexts of the Moroccan media system. It then turns to an examination of the Internet context. This is followed by a description of the *Almassae* online newsroom and an analysis of the various factors that shape innovation decisions and the production of multimedia content on its portal. A sub-case study follows, highlighting the incident of Ninni's detention and its consequences for the innovation of the online newsroom. Finally, the chapter examines the different conceptions about the users and the 'ideal' design inside the online newsroom, and how they shape multimedia adoption decisions.

4.2 Morocco: Setting the Scene for News Innovation

To better understand the online news environment in Morocco, it is useful to place the media within the larger landscape of the country, including its historical, political, and economic contexts. This trio of parameters together form the fabric that shapes how media operate in general and how limits are set on online news.

This section describes the historical development of media in Morocco, as well as the current political, cultural, and economic context within which the Moroccan media operates. It also highlights the media landscape in the country, looking at the different

media platforms and media systems governing their operation. This general overview proves helpful in describing how news innovation takes place at *Almassae*.

4.2.1 Historical Context

Morocco has been ruled by the *Alawite* Dynasty since the mid-seventeenth century. The Dynasty was often glorified for having descended from the lineage of Alhassan, grandson of the Prophet Muhammad. This meant that, similar to other monarchies that relied on religious prestige (e.g., the Vatican and Saudi Arabia), the Alawite Dynasty had an additional layer of legitimacy which often reinforced popular respect.

From 1912 to 1956, Morocco was a protectorate of France and Spain. It became independent on 2 March 1956, choosing to adopt a pro-Western political system, and a liberal economic system. Zaid (2010) explains that these choices were at odds with the rest of the Arab nations, which aligned themselves at the time with a less liberal, and more socialist economic system.

Historically, the official Moroccan press served the colonial rulers, mainly the French and Spanish (Ibahrine, 2005). It was the French who introduced the modern press to the North of the country at the beginning of the 20th century, namely to serve its settlers. It was not until 1962 that Morocco developed its national broadcasting system named *Radio diffusion et Télévision Marocaine (RTM)* – or Moroccan Radio and Television – modelled after the French broadcasting system³¹ (Zaid, 2010).

With the emergence of broadcast media, the Moroccan state owned and controlled most TV and radio channels. Ibahrine (2007: 82) has observed how the Moroccan regime has used broadcasting to ‘promote regime-directed policies’ since 1956. For instance, in the

³¹ The French broadcasting system was called Office de la Radio diffusion et *Télévision Française ORTF*

1960s, King Hassan II mobilized radio and television to raise awareness about the country's first general elections and constitution referendum (Ben Ashour, 1992).

After Morocco's independence, in contrast to broadcasting, the print press was more often controlled by the political parties. Most newspapers were owned by political parties; only two were government owned (Zaid, 2010). Soon, however, with the advent of political and economic change in the 1960s, opposition press started becoming critical of the politically conservative role of the Moroccan broadcast media, accusing them of being propaganda tools of the regime (Zaid, 2010).

4.2.2 Political and Legal Contexts of the Press

Officially, Morocco is a constitutional parliamentary monarchy with an elected parliament, but in reality, its political system is a combination of moderate civil liberties and authoritarianism – or what some have called a *pseudo-democracy* (Sweet, 2001). With the arrival of King Mohamed VI in 1999, the country moved to a bicameral legislature with over 20 political parties.

Morocco has regularly endorsed the Universal Declaration of Human Rights – which recognizes freedom of expression as 'one of the most fundamental freedoms' (UN ECOSOC, 1948). It also signed the International Covenant on Civil and Political Rights (ICCPR) in January 1977, which stresses the importance of freedom of opinion and expression as a universal standard in article 19 (UN treaty collection, accessed 2010). Nevertheless, the actual implementation and guarantee of these freedoms are confined within the context of Morocco's own national legal systems. For instance, Morocco's judiciary is not defined as an independent branch of government. According to the constitution, the King presides over the judicial council (Conseil Supérieur de la Magistrature, CSM) (Constitution 2011, articles 56 and 115).

Historically, the French passed the first code regulating the press on 27 April 1914, based on the French law of 1881 (Koprowski, 2011). But two years after independence, on 15 November 1958, the first *Dahir* – or Royal decree – was issued articulating what later became the first Moroccan Press Code outlining the main rules governing the role of the press. (Dahir, 1-58-378, 1958). In 1962, another *Dahir* created a press code modelled after the French Colonial Press Act and developed the state Moroccan Radio and Television body (RTM). In 2002, a third *Dahir* complemented the former decrees, culminating in the 2003 Press Code no. 77 particular to the regulation of the audiovisual communication sector.

The political context in Morocco has shaped the role of media significantly since the independence. The years of ‘lead’ described the era of King Hassan II’s strong grip on freedom of expression, including the role of the press. During the 1970s and 1980s of Hassan II’s rule, tens of thousands were detained or expelled from the country for opposing the regime (Koprowski, 2011). Zaid (2010) explains how it was difficult to determine whether television cameras were used for journalistic purposes or for policing citizens during public demonstrations.

However, in the last years of King Hassan II, and as King Mohamed VI ascended the throne in 1999, a number of structural reforms were introduced to enable more freedom of speech and slowly dismantle the autocratic state. In line with this move, throughout the 1990s, the state released hundreds of political prisoners incarcerated during the previous three decades of ‘years of lead’ (Wilcox, 2009).

In addition, the government fulfilled its promise to make state media public by creating an independent regulator, the High Commission for Audio-visual Communication (HACA). A legal framework for the liberalisation of the audio-visual sector was also put

into effect, ending the state monopoly of broadcasting and allowing the licensing of private radio and TV stations (Ibahrine & Zaid, 2011; Zaid, 2010). The HACA promulgated law transformed the Moroccan Radio and Television (RTM) from a subsidiary of the Ministry of Communication into an independent self-governing body: The National Radio and Television Company (*Société Nationale de Radio diffusion et de Télévision* (SNTR) (Zaid & Ibahrine, 2011, p. 17). In 2004, an audio-visual reform law was also decreed to turn the previously state-owned RTM (a.k.a. *Aloula*) and 2M into public channels under the governance of the SNRT. These changes raised hopes for a more liberal media environment in Morocco.



Picture 1 The three Moroccan taboos: God, the Nation, the King

However, despite the gradual liberalisation of the media, there are three main taboos untouched in Moroccan media: *Allah*, *Alwatan*, *Almalik* الله ، الوطن ، الملك or God, the Nation, the King. The trio is a ubiquitous sight across Morocco, where the words are written on mountains and hillsides such as *Agadir Oufella* in Aghadir and are regularly chanted in the national anthem (see Picture 1). They are also sung in the national anthem, reminding Moroccans of what must never be questioned, lest they ever forget (Souaiaia,

2007). The freedoms of the Moroccan press are bound by those tripartite lines. People can talk about anything, except something that is insulting to Islam or the King, or disagreeing with the national stance particular on the Sahara problem between Morocco and Algeria.

The law ensures that those red lines are never crossed. Article 41 of the Press Code of 2003 makes it illegal and punishable by imprisonment for up to five years and a fine up to 100,000 Dh to ‘fail [] to show the requisite respect to the King or other members of the royal family...’ Article 41 adds that publishing anything that can be considered ‘harmful to Islam, the monarchy, or Morocco’s territorial integrity carries the same punishment.’ (Press Code 77, 2003, art. 39-41). According to the provisions of the Press Code, the King is also *Khalifat Almoemineen* - خليفة المؤمنين – or the Muslims’ Guided Caliph. Therefore, although this does not entail religious powers, respecting and honouring the King’s person is treated as a ‘duty’ and his sanctity is not to be violated.

Rampal’s (2009) study of North African media students and journalists also confirmed that treatment of matters related to the three taboos is often ‘under strict editorial control at the highest levels in’ news agencies such as the Morocco Press Agency (MAP). Moreover, the provisions of the Press Code of 1992 are often seen by journalists as working against objectivity when it comes to news treatment of the Western Sahara and the King, and such ‘editorial constraints...are not conducive to assuring a high professional morale’ (2009: 18). This is why, when the non-Moroccan *Aljazeera* covered a different version of the Sahara conflict in October 2010, the government suspended its operation in Morocco on the grounds that the channel ‘seriously distorted Morocco’s image and manifestly damaged its greater interests, most notably its territorial integrity’ (HRW, 2011).

But the situation soon regressed shortly after the 16 May 2003 bombings in Casablanca. The Moroccan Parliament passed an ‘anti-terrorism bill’ that later became Law 2003 of the Penal Code (Morocco, Dahir, 1.03.140). While the 2003 law came as a justifiable reaction designed to protect national security, the definition of terrorism was expanded to include acts of publications, creating for the first time a dangerous association between the media and international terrorists (Koprowski, 2011: 18).

The anti-terrorism decree notes that:

Whoever commits an act that is comprised of a crime of terrorism, through means of speech, outcry, or verbal threats in public space; or through writing, publishing, distributing, putting up for sale, or displaying in public place; or through affixing in public sight; or through any other oral, visual or verbal display may be punished with imprisonment. (Anti-Terrorism Dahir, supra note 83 at 1755)

This law was just the beginning of a much harsher stance by the Monarchy toward press freedom. Shortly after issuing this decree, the judiciary sentenced many journalists to prison and imposed some of the largest fines ever seen in Morocco (Koprowski, 2011). Criminal charges against the media have significantly increased, particularly since 2008, causing some publications to close and putting a number of journalists in jail for their writing (Sweet, 2001; Koprowski, 2011). For instance, three of the country's most outspoken publications have closed since 2009, victims of economic difficulties due in part to political pressure. They are the French-language weekly *Le Journal Hebdomadaire*, the Arabic weekly *Nichan*, and the Arabic daily *Aljarida Aloula* (HRW, 2011). Meanwhile, a law for the liberalisation of the radio and TV sector, allowing private companies to invest in those sectors, enacted in January 2005, was revoked by the High Authority of Audiovisual Communication (HACA) in 2008 (Club, 2009; Zaid, 2010).

The media crackdown stretched into the online world. The Moroccan government began censoring the Internet, arresting and imprisoning bloggers and satirists, and occasionally suspending access to popular portals such as YouTube (Koprowski, 2011; RSF, 2012). Since 2008, bloggers such as Mohammed Erraji and El Bashir Hazzam have been sentenced to jail for criticising the King's policies after being convicted of 'spreading false information and damaging the image of the Kingdom' (RSF, 2012). Moreover, according to M. E. – one of the most renowned Moroccan bloggers – despite generally enjoying a larger margin of freedom compared to many Arab bloggers, citizen journalists are constantly harassed by the government and have been arrested (Personal interview, 25 October 2010).

Despite the financial and persecution crackdowns on the media, the year 2011 brought changes to the political scene. In June, following mass demonstrations calling for democratic reforms since the beginning of the year, alongside the rest of the Arab World, the King appointed a commission to draft constitutional reforms. The reform referendum was supported by a popular vote on 1 July 2011. The new constitution introduced a number of changes, including assigning some of the King's privileges to the Prime Minister appointed by the King from the largest party in parliament (Morocco Constitution, 2011, Chapter 2, article 47). It also introduced *Amazigh* as an official language alongside Arabic (Morocco Constitution, 2011, article 5). This move was seen as long overdue; given the cultural and historical presence of the language different dialects of which are spoken by over 28% of the population³² (Population Census, 2004; Haut-Commissariat au Plan, 2004).

³² While the official census brings the percentage of those speaking Amazigh language to 28% of the total population, recent non-official sources mentioned it was near 50% (Arab Media Outlook 2009-2013: p133).

In the areas of communication and press freedom, the changes were not as prominent. Despite the new controls given to the Prime Minister, the King retained complete control of the armed forces, foreign policy, and the judiciary. This was interpreted by many to mean that any court ruling for press-related cases would still require final approval of the King. And although the King was no longer regarded as 'holy' in the new constitution, his person still deserved respect and honour (Morocco Constitution, 2011, article 46). Political limits were set on communication and the press. Moreover, according to article 28 in the constitutional referendum, the High Authority of Audiovisual Communication (HACA) became the sole regulator of the press.

Article 28³³:

Freedom of the press is guaranteed, and cannot be restrained in any form of prior monitoring. Everyone has the right to freedom of expressing and publishing news, ideas and opinions, without limitation, except what the law explicitly stipulates.

Public authorities are encouraged to regulate the Press sector, in an independent manner, and on democratic basis, and to put the legal, ethical rules related to it.

The law outlines the rules for organizing and monitoring of public media, and ensures the benefit of these media, respecting language, cultural and political plurality of the Moroccan society.

The High Authority for Audiovisual Communication (HACA) is dedicated to ensure respect of diversity/plurality according to the regulations in article 165 of this constitution.

Article 165:

The High Authority for Audiovisual Communication (HACA) is in charge of ensuring respect of pluralistic expression for all factions of thought and opinion; and the(ir) right to information in the audiovisual arena/field, and that within the frame/outline of respecting the principle heritage values and laws of the Kingdom.

Koprowski (2011) argues that, despite the fact that the Moroccan press enjoys greater formal guarantees of freedom under Mohamed VI than under the late King Hassan II,

³³ This English translation of the constitution is a personal effort. To access the full Arabic and French official versions please check www.mediafire.com/?ifbdzu0a4hj0eb1 and www.goud.ma/attachment/281139/

there has been a sharp increase in government censorship and officially sponsored persecution of media activists. Currently, Morocco ranks 127 out of 178 on the World Press Freedom Index (2012), showing a steady decline since 2003. Scholars such as Ibahrine (2007) argue that the privately owned ‘diverse’ press in Morocco functions as a propaganda tool, as it is exercised in a ‘context of authoritarian political structure and restrictive media policies’ (Ibahrine, 2007: 9).

To sum up, although by Arab standards the Moroccan press has considerable variety and freedom, the laws and the Press Code provide tight control on journalists. The political and legal realities constrain the professional practice of journalism in Morocco, despite an illusive increase in journalists’ professional training (Rampal, 2009: 17). As Koprowski (2011) argues, the freedom of expression allowed in the Moroccan Press Code is rather vague and ill defined, while restrictions are laid out in a detailed manner and interpreted in a broad manner by the courts (17). This makes Morocco’s endorsement of any human rights declarations not really binding and more defined by the local setting of the government. This environment constantly places media in a vulnerable situation, particularly when it touches any of the red lines decreed by the Palace.

4.2.3 Economic Context

Economically, Morocco comes from a more pro-Western capitalist background than most of the Arab states. Since its independence in 1956, Morocco has adopted economic and political policies different from the socialist ideals to which the majority of Arab states adhered at the time. This explains the slightly larger margin of media freedom in Morocco compared to the majority of Arab countries.

The heady first years of Mohamed VI's rule since he ascended to the throne in 1999, were characterized by economic liberalization, including joining the Free Trade Agreement with the US and EU in 2004. (OECD, 2010).

The country has also progressed into a series of telecommunication privatizations. Since the 1980s, international institutions such as the World Bank have financed the modernisation, reform, and expansion of *Maroc Telecom*, including a US \$100 million package in 1999 aimed at liberalising the telecom sector (Benach, 2002). In the 1990s, the telecommunication liberalisation process officially began. As a result, in line with the growth in GDP, the advertising market, especially in the telecommunication sector, increased by 6% in 2009 (Arab Media Outlook, 2010: 132).

4.2.4 Media Landscape in Morocco

William Rugh (1987, 2004) attempted to provide a typology of Arab media systems³⁴ into three categories, in which he placed the Moroccan press among the 'diverse' press (Rugh, 1987). According to Rugh, this category –including only Morocco, Lebanon, and Kuwait – enjoys a relative degree of freedom compared to its counterparts in other Arab countries. To Rugh, this press has more diversity in opinion than the 'loyalist' and the 'mobilising' press practiced in the rest of the Arab World: those that are often subject to censorship and are strongly tied to their authoritarian regimes. There are some general facts that support his belief. For instance, unlike many Arab *mashriq* countries, the Moroccan broadcast media is not entirely state-owned. In 2002, the monopoly of the state owned TV ended by establishment of an independent High Authority for Audiovisual Communication (HACA), which maintained some editorial autonomy despite being funded by the state.

³⁴ More about the typology of Arab media in the Introduction

Nonetheless and as noted earlier, much literature has documented cases of press intimidation, oppression, and censorship, both during the reign of King Hassan II and later his son King Mohamed VI (Ashour, 1992; Sweet, 2001; Ibahrine, 2005; Rampal, 2009; Zaid, 2010; Daadaoui, 2011; Koprowski, 2011; RSF, 2011; Zaid, 2011; RSF, 2012). Moreover, despite the fact that a law liberalising the radio and TV sector was introduced in January 2005, it was revoked by HACA in 2008. Until 2012, all seven terrestrial TV channels remained owned by the state-owned Société Nationale de Radio diffusion et de Télévision (SNRT). Even 2M channel, which was the first private terrestrial TV channel in the Arab World back in 1989, was turned into one owned by the government seven years later (in 1996).

There are number of general features that characterise the Moroccan media landscape. First, it is relatively very local in content. The local TV market has developed in recent years with the launch of IPTV by Maroc Telecom in 2006 and the introduction of Digital Terrestrial Television, which covered 77% of the population by June 2007 (Arab Media Outlook, 2009). Interviews with media experts in Morocco in 2009 revealed the success of local TV channels such as TVM and 2M, which jointly account for approximately 50% viewing share in the country, while satellite TV channels account for the remaining share (134). This feature also applies to the Moroccan press, the majority of which focuses on local Moroccan news. Secondly, the French language is predominantly used on most radio and TV channels. For instance, 80% of the public 2M channel content is in French. Also, despite the prevalence of Spanish and Amazigh print papers, the second most popular press language after Arabic is French.

In terms of broadcast media, there is no cable TV in Morocco, although almost two-thirds of the population had satellite TV in 2011, while total TV penetration reached nearly 90% in 2009 (The Arab Media Outlook, 2009). The number of private TV channels increased

from three to eight between 2004 and 2008. The number of radio stations also increased from six to 24 between 2006 and 2008, with 18 new private stations (Zaid & Ibahrine, 2011; Zaid, 2010). This number is likely to increase as the national broadcaster, SNRT, aims to complete digital switchover by 2015 (Arab Media Outlook, 2009).

As for the print press, it has always been owned by political parties with very few independent newspapers such as *Almassae*. In 2005, there were 20 political parties. Each had one or two publications to propagate its political views and activities (Ibahrine, 2005; Rampal, 2009). Important newspapers include *Alalam* which belongs to the opposition Socialist party '*Alitihad Alishtiraki*' – one of the largest parties. The party press is subsidized by the state, and since 1987, the government has awarded fixed subsidies to newspapers and magazines that support its version of political reality (Ibahrine & Zaid, 2011). This is why independent press is very rare (about six private newspapers), and often consists of monthly magazines with very low circulations (Rampal, 2009). Among these are *Alsabah* (Morning), *Almassae*, and *Alola*. The government also runs a news agency, Agence Marocaine de Presse (MAP), which often propagates the state version of news content (Rampal, 2009; Zaid, 2010).

The total combined dailies circulation in 2010 was 710, 000, less than 3% of the population (The Arab Media Outlook, 2009). Moreover, even when the number of publications increases, the readership remains the same, but readers move from one newspaper to another. For instance, *Alsabah* had the highest circulation in Morocco; but since *Almassae* was established in 2006, it slowly took some of the *Alsabah*'s readers. When *Almassae* had the highest readership, the overall number of readers of Moroccan press remained the same, only shifting from one paper to another (Ibahrine & Zaid, 2011). The low levels of literacy and readership affect newspaper and magazine

advertising expenditure, which accounted for less than 15% of total advertising in 2009 – an amount relatively small compared to other countries in the Arab World.

In terms of content quality, the partisan press often promotes each party's own political views. Rampal's interviews have shown that the parties' news promotes a 'commentary' style rather than objective and newsworthy reporting, and results in sensationalism being a serious ethical problem (Ibahrine & Zaid, 2011: 19). Zaid and Ibahrine (2011) also report that inadequate education, lack of professional training, and a 'dearth of economic and technical resources has contributed substantially to the low quality of journalism.'

4.2.5 Internet and Online News

Internet in Morocco is becoming both a national priority and a slow, but steadily growing platform for information and communication. In 2011, Internet consumption in Morocco was estimated at over 33% of the population with roughly 10.5 million users, while broadband penetration was 12% (Internet World Stats, 2011; Arab Media Outlook, 2009). This rate is likely to grow, especially as 57% of the country's population is under age thirty. The number of Internet subscribers grew by 60% from 2005 to 2010 (ANRT, 2011). Moreover, the number of mobile phone subscribers reached 27 million in March 2010, with 85.82% penetration.

It is worth noting that mobile penetration in Morocco reached 88% in 2009 with a sustainable mobile subscription growth over years (Arab Media Outlook, 2009). The three mobile providers are Maroc Telecom (MT), Meditel, and more recently, Wana. Mobile is increasingly seen as an alternative platform for media content consumption, especially since SNRT launched DVB-H-Based FTA Mobile TV in May 2008, allowing users to watch five channels on their mobile phones (134).

Regionally, Morocco's ICT Development ranking among Arab countries has slowly improved, despite remaining 14th out of eighteen. According to the International Telecommunication Union, Morocco's ICT Development Index reached 71% growth between 2002 and 2007. The country's increase in household ICT access between 2010 and 2011, was also considered among the most improved worldwide (The International Telecommunications Union, 2012, p. 40). Nevertheless, the country's high illiteracy rate of nearly half the population, is one of the key factors creating a digital divide and hindering ICT growth.

The government has adopted a number of strategies to overcome this digital divide. In October 2009, the national strategy 'Maroc Numérique 2013' was launched with a budget of over US 520 million, with the aim of increasing high speed Internet access and developing e-government programs (The International Telecommunications Union, 2012: 40).

In terms of news, the Internet remains a strong platform for news and information in Morocco. Most youths do not read the print newspaper; the older generation reads it because of the experience of holding a newspaper in and of itself (Zaid & Ibahrine, 2011, p. 30). Instead, youths search for the particular news that they seek directly. But the readership of print is not decreased by the emergence of the Internet, according to Moroccan journalist Nadia Ben Sallam (Personal interview, 28 Oct. 2011).

The Internet is also changing print traditions. All print newspapers have a portal, and some – especially independent ones – have business models based on subscription or advertisement. Internet advertising expenditure more than doubled between 2008 and 2009, as Internet forced print media institutions to restructure the way they conduct business (Personal interview, 28 Oct. 2011: 30). According to a prominent Moroccan

journalist, since 9/11, 'journalists have started to use the Internet as an important and equal source for news gathering, especially as famous news wires have posted news online.' (Personal interview, N. B., 22 October 2011).

Electronic journalism is a growing phenomenon in Morocco. By 2011, there were over 400 news related portals, according to the Moroccan Association for Electronic Journalism (MAEJ, 2011). Moreover, the number of news sites belonging to news organisations in Morocco that purely originated online is much larger than those from news organisations that originally have an offline presence (i.e., physical, legal and, organisational structure in the print or broadcast media). Similarly, much online journalism begins online; it does not come from the press or the TV. Either the journalists freelance or begin online, then join a news organisation. This is also an interesting development in Morocco. Many online journalists begin freelancing online, then join a news organization, rather than coming from the press or the TV (Personal interview, M. B., 25 October 2010).

This phenomenon was accompanied by a growing debate around electronic journalism, what it is, and how to define the role and status of an electronic journalist. This is partly because many news sites do not have a print equivalent, despite being very famous. Several bloggers have also turned into professional journalists, or sought to be. Prominent cyber activists such as Albaqqali, as well as the head of the Moroccan Association for Electronic Journalism Adel Klei, made a clear distinction between 'professional' journalists and bloggers (Personal interviews, 25 October 2010). While Albaqqali, for instance, works as a freelancer for BBC and *Aljazeera*, he makes a clear distinction between that role and his role as a blogger.

Moreover, although the majority of news organisations have an online presence of some sort, Moroccan media experts do not regard them as part of ‘true electronic media journalism’ (Rachid Jankari interview, 22 October 2010). Most of the time, these news portals become a mere ‘copy and paste’ of the print content of their newspapers. Meanwhile, popular online news sites that enjoy high traffic such as *hespress* and *Ilaf*, often lack professional quality journalism, despite their ability to attract users. Their coverage is primarily achieved through good collection and aggregation of news from other news sources, sensationalism, and maximising the use of multimedia, in Jankari’s view.

4.3 *Almassae*

‘Massae Media Group’ is a Moroccan news organisation that began its work in September 2006. The main daily *Almassae*³⁵ – meaning The Evening – was published as an independent newspaper the same year, and subsequently rose in popularity to become the



Figure 8: *Almassae* logo: ‘The Free View and the True News’

to exceed a daily circulation of 100,000 (OJD, 2010). The high circulation of the newspaper was due to the popular columnist Rachid Ninny who was also its director and editor-in-chief. His renowned daily column – *Shouf Tshouf* شوف تشوف [e.g., see and you shall see] often heavily criticised the government and public officials, opening many cases of corruption in the country, which made it appealing to the public. Ninny’s satirical writing style, mixing modern standard Arabic and Moroccan *Darijah* also added to the success of the column.

³⁵ In the Arabic language, the two letters ‘Al’ preceding any noun are used for identification, similar to the use of ‘The’ in English. The original Arabic name of the daily newspaper will be used henceforth.

In 2008, the news organisation published two weekly magazines *Alnajmah* and *Awwal* (in Arabic and French), but they were not successful and soon bought by another company due to financial difficulty of the media group. In October 2010, the news organisation published two weekly magazines on top of the popular daily and its sister *Almassae* Sports paper (published twice a week): *Puce* and *أوال* *Awal*, which were published in the French and Amazighi languages respectively. Shortly after, a Spanish magazine *Alqantara* was also released.

By the end of 2011, a few months after Ninni's imprisonment, the organisation stopped four of its magazines: *Awal*, *Puce*, *Alqantara*, and *Alamssae* Sport (see section 4.7.2.).

4.3.1 Size and Business Model

The finance and administrative director Ibrahim Mansour and most of the staff at *Almassae* Group perceived it to be among the largest news media institutions in the country. Indeed, in terms of yearly sales and advertising revenues, the institution appears to be the top independent news outlet in Morocco. During its peak times, *Almassae's* newspaper circulation has reached approximately 145,000 copies on weekdays and 180,000 on Fridays (weekends); of which 112,000 to 115,000 were sold daily.³⁶ *Almassae* even surpassed the circulation of its main rival – *Alsabah* (The Morning) – by almost double in 2010.

Nonetheless, even with this size, *Almassae* can be categorised among small-scale news enterprises compared to other Arab media financial and human resource standards. For instance, the total number of staff working at *Almassae* newspaper³⁷ is only 120. Out of this number, 70 are journalists covering field offices in Rabat, Marrakesh, and Tangier, in

³⁶ According to October 2010 latest sales records from *Almassae* Administration department.

³⁷ *Almassae* newspaper refers here to the staff working for the print and online paper, and does not include the other publications of Massae Media Group (*Awal*, *Puce*, Sports..etc)

addition to its headquarters in Casablanca. This is a far smaller number than larger Arabic newspapers such as the Egyptian *Alahram* newspaper – one with over 20,000 staff members. On the financial side, *Almassae*'s annual budget exceeds 10 million Dirhams per year (approx. US \$1.2 million);³⁸ while in 2010, it spent over 6.5 million Dirhams a month on printing.³⁹ This is also a very modest number compared to its peers in other Arab countries.

On the online front, neither *Almassae.press.ma* nor any Moroccan newspaper made it to the Forbes ranking of the top 63 Arab online newspapers in 2010 (Forbes Middle East, 2010). Moreover, until 2012, *Almassae* portal traffic has not exceeded 100 k visitors a day – a very small number compared to its Egyptian, Algerian, and Gulf rivals that exceed that number by factors of ten (Alexa portal, last accessed 20 December 2011). Moreover, the site bandwidth comprised a mere 100 MB per second (enabling approximately 3-4 million users to access the site at the same time) – when other sites such as *Aljazeera* had surpassed 1GB of bandwidth – allowing far more users to access its site at the same time.

The online news site business model has also not fully matured. The cost, as well as the return on online investment was still not high until 2013. For instance, the institution paid a mere 200,000 Dirhams (approx. US \$24,000) for its first portal design – partly subsidized on a pro-bono basis by one of its business partners. The renovated design planned for 2011 – mainly to increase the servers' capacity, to improve the site attractiveness, as well as to hire five dedicated staff members – was estimated at approx. US \$60,000 (I. M., Personal interview, 19 October 2010). Although the investment is

³⁸ The actual annual budget for 2010 was not revealed to protect the company's competitiveness in industry.

³⁹ October 2010 financial records.

relatively modest, it seems proportionate to the size and scale of the newspaper's resources.

Nonetheless, and despite its current small scale, senior management still sees the business opportunity in the newspaper's online presence, both as a future income generator and a branding arm. Ninni explained:

[Currently], the portal does not require much expense; its expenses are limited compared to the print expenses, so this encourages continuation in this direction. I think the future will be this particular type of [online] journalism. (Personal interview, 22 October 2010).

The finance and administration director echoes this idea:

Almassae is the first Moroccan paper, in terms of sales. So automatically, we want to give the reader additional value. Even if it would not bring financial return as the print does, we will still spend on it. ...When we first created the portal, our goal was not to make a profit. This was for our brand image; we must be present [online]. We have now [started to] get some advertising [for the site] in order to be able to innovate in the portal, and be on par with the world news sites (Personal interview, I.M., 19 October 2010).

The business model of the institution remains dependent primarily on advertising revenue from the print paper and magazines such as *Sports*, *Awal* and *La Puce*. In addition, it occasionally publishes special editions of the newspaper to generate additional advertising and test the market. *Almassae* Group outsources a distribution and sales company named *Alwaseet* - الوسيط – to handle the print paper's daily circulation. It has also contracted a mediator to handle its online advertising in late 2010 (I.M., Personal interview, 19 October 2010). Since then, advertising on the portal has slowly grown.

Discussion with *Almassae* management revealed, that despite the fact that the portal is not returning any revenue, investment in its development and innovation is seen as a strategic step for the future. However, the actual profit of the news organisation largely determines decisions about moving forward with new ideas.

Moreover, the strong critical stance of the newspaper towards the government despite repeated fines, reflects an underlying political drive behind management's business decisions for expansion.

4.3.2 Newsroom Structure and Composition

Of the 120 staff members working in *Almassae* media group in 2010, only three full-time staff members were dedicated to the portal's content management: the IT Manager, the webmaster, and the IT assistant. However, two print journalists worked part-time on updating the social media pages. In addition, there are a number of administrative and editorial staff members involved in the portal on an irregular basis, including the marketing and communication person, the advertising agent, the photo archivist (who is often sought for archival pictures from old print issues), and the senior management team.

As Figure 9 illustrates, the organisational structure in 2010 was split into editorial and administrative teams, both supervised by the board chairman, who is also one of three shareholders of the organisation. The editorial team is headed by the assistant editor in chief,⁴⁰ and consists of over 70 members, including reporters, journalists, cartoonists, photographers, as well as the print design and production teams. Meanwhile, the administrative team handles organisational services: sales, marketing, human resources, advertising, and legal affairs.

⁴⁰ 'Secrétaire Générale de Rédaction' is the equivalent of Assistant Editor in Chief.

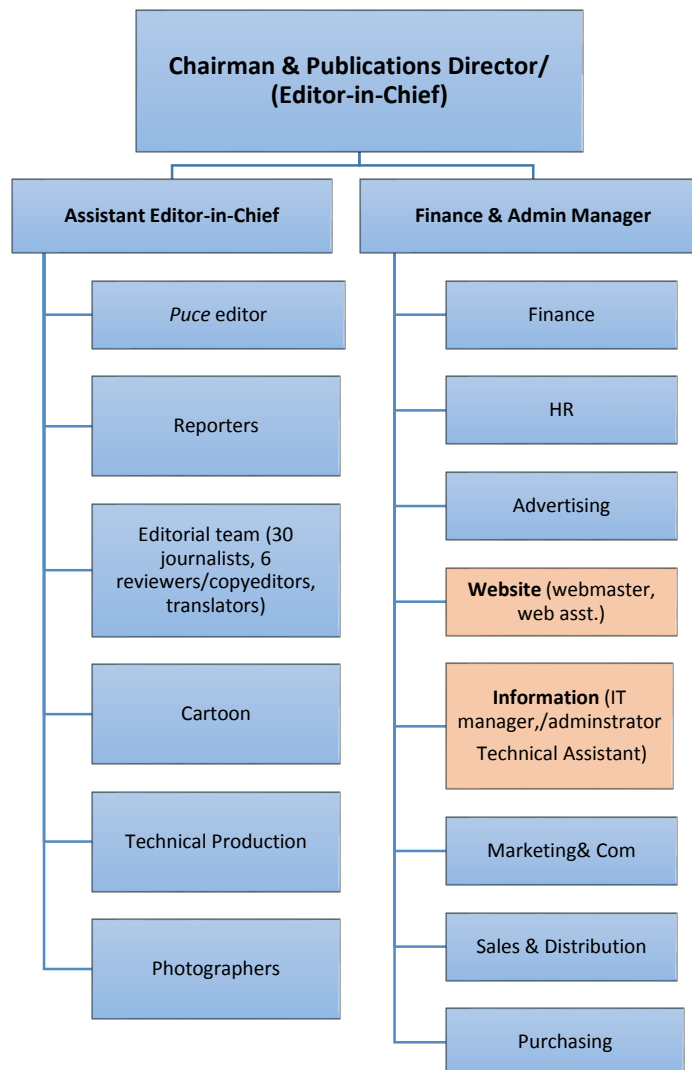


Figure 9: Almassae Organisational Structure (October 2010)

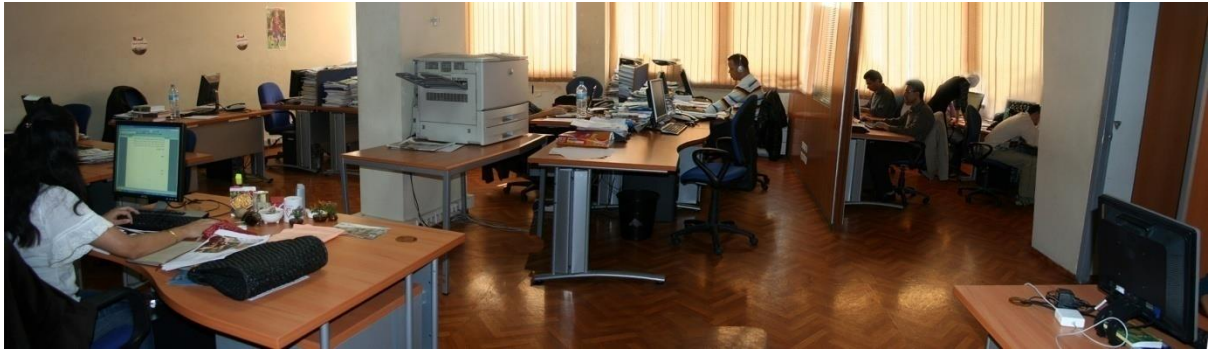
Although the IT manager and the portal persons are under the administration management, the actual day-to-day supervision of the webmaster and technical assistant's work is often reviewed by the senior editorial management. The portal content is also often reviewed by the editor-in-chief or the assistant editor in chief, on an irregular basis.

In 2010, *Almassae* daily and *Puce* weekly had one newsroom spread over a separate floor in a building in the heart of downtown Casablanca, with three key sections. The small reception entrance – where two staff members greet visitors – opens to the right into an open area where all of the print journalists, together with the Webmaster and the IT

technical assistant, are based. The print production and design teams are located to the left. Finally, a third partition is dedicated to a server room, where the photographers and archivist also work. The editor-in-chief's office is located a few metres away. The Assistant Editor-in-Chief often roams between these three sections depending on the time of the day.

The composition of the newsroom has been remarkably shaped by the introduction of the portal and online news functions. It was noticeable that the web team was located at the heart of the newsroom, as per Picture 2. This location allows the webmaster to interact directly with the editorial team. The webmaster explains one incident of how the online-print worlds meet: 'If a mistake in the print was found, they [e.g., editorial team] let me know before I add it online ...so they tell me in the morning before I start [working] on [uploading] the issue' (Personal interview, 19 October 2010). This direct verbal interaction often proves versatile, especially as the newsroom does not rely on a sophisticated digital editorial management system. To that end, the direct human verbal communication replaces technological communication.

A second floor in the same building hosts the administrative, human resources, finance, marketing, and legal departments, headed by the finance and administrative director. There is also an adjacent office for the IT manager and the distribution company in a nearby building.



Picture 2 The Webmaster's desk at the far right corner of the newsroom.

4.4 Information Architecture: Typology of Site and Design Evolvment

The portal *Almassae.press.ma* launched in 2007, one year after the print newspaper was published. In 2008 and 2009, minor design changes were introduced to the site. However, in late April 2010 and after being down for two months, the *Almassae* portal was revamped with a new interface design and infrastructure using Photoshop and Drupal⁴¹ content management system. The new design provided one of the most advanced online versions of Moroccan Arabic-speaking dailies at the time (Zaid, 2011). The portal designed interface remained among the most modern in 2010 – providing interactive services such as commenting and polls. However, by 2013, it lagged behind many Moroccan news sites⁴² (see typology of portal Figure 10).

The content of the front page can be categorised into three main types: content from the newspaper's print version, content not available in the print version, and recycled content.

4.4.1 Print Content

The first type, as Figure 10 illustrates, begins with the upper middle section, which contains a ten-picture carousel – known among the online team as Diapo.⁴³ The Diapo

⁴¹ Drupal is an open sourced content management system using php and mysql coding.

⁴² See for instance news aggregators such as www.alalam.ma and <http://www.nichane.com/>

⁴³ Diapo in French originally means a slide or a film.

links to the first and second page headline stories of the print. The print content is also displayed through the main right column or side bar menu – given that Arabic is read from right to left – which lists each of the print pages through dedicated buttons. The first print page, is followed by the second page, politics, reports/feature, local news, cultural, society, crime, sports, cooking and tastes, religion and thought, and profile. But the first button in this menu is always reserved to link back to the homepage.

There is also a second right column at the bottom that links to the more occasional features of the print version – ones that are published weekly or printed in additional extension pages irregularly, such as the *Almassae* Entertainment, Family Space, *Almassae* Educational, and the Political supplement. Moreover, there is an additional graphic button dedicated for viewing the actual print version as a PDF called ‘flipping through.’ Designed through flash and shared through the issuu.com⁴⁴ platform, the feature gives the print-nostalgic reader the feeling of browsing the actual 24-plus pages of the print paper. Right below, there is another dedicated graphic picture linking to the latest edition of *Almassae* Sport in the same way. Although *Almassae* daily content, unlike the Sport weekly, is already on the site, the editorial team still saw relevance in having a PDF version of the daily.

Finally, there are eight panels in the middle and on the left of the front page, containing the authors’ columns, as well as the sections for irregular features, which often remain on the site, even though they can appear weekly in the print version. Right below these panels are four infographics dedicated to ‘Cartoon,’ ‘A photo and a comment,’ ‘Morning Coffee,’ and ‘Highly Confidential’ repurposed from their equivalent ‘offline’ sections in

⁴⁴ Issuu is a publishing and sharing free online service. For more details check <http://issuu.com/#whatIsIssuu>

the print version. Ninni's daily column is highlighted in an specially dedicated picture graphic that is prominently placed at the top left corner of the front page.

4.4.2 Transcoded Content

In addition to content 'shovelled' directly from the print version, there is some content available only online. This is what some scholars (Manovich, 2001; Jacobson, 2012) call 'transcoded' content – or the type of material that cannot be replicated or repurposed directly from print; they are web-only features. In *Almassae*, they include the breaking-news ticker, which is updated throughout the day by the webmaster – from the Agence Marocaine de Presse (MAP) national newswire service. However, it was observed that the update was not regular. There are also the searching and site registration features that are placed in the very top left corner of the site. Then, there are the videos which are placed at the bottom of the page and are often collected from users or selected randomly from YouTube. This type of content is often added on an ad-hoc basis depending on availability. In December 2010, space for three horizontal videos was added to the bottom of the front page, instead of the previously allocated one video.

The interactivity and feedback services are also part of the web-only features; they allow users to engage with the content of the site. They contain a commenting feature that is only available to registered users of the site, and is pre-monitored before publishing. The old design did not enforce registration to enable commenting on any particular article, which posed a challenge to the undersized online team to monitor. As site Webmaster Kaoutar Latifi explains:

At times, especially in the past, in the first portal design, we could get [up to] 900 comments on Rachid's [daily] column alone. But in the old design, there were a lot of spam links or offensive comments. But now we have a new portal where people have to subscribe [before commenting], so we can control who says what, or if they have abusive [comments] we can block them. (Personal interview, 18 October 2010)

Commenting was not the only way of enabling user interactivity on the site. A bi-weekly poll feature was placed at the bottom right of the page in 2010 (although it was on the left in the earlier design); enabled *Almassae* to sense the public pulse on current affairs. In addition, interactivity is offered through enabling sharing content of the site via email, and more recently via Facebook. The staff also disseminated *Almassae* news stories on Facebook, Twitter, and YouTube,⁴⁵ albeit not daily. It also allows user feedback via an *Almassae*’s contact email, through which users corresponded directly with the paper.

Advertisements are another standard part of the site that does not match the content of the print version. They are managed by a dedicated marketing person. They change in size, but within a standard location for the ad banner animated in flash player at the very top of the page. In the early years, the site often used this advertising spot as cross-promotion with its own services, or *Almassae* publications. However, during 2011, advertisements from other private and public corporations noticeably increased. At times, three different advertisements were stretched and flash-animated across the same banner.

4.4.3 Recycled Content

The third type of content on the site is what can be called ‘recycled content,’ or content that already exists on the site, but has been aggregated and promoted across the site for easier accessibility and higher visibility. For instance, an archive of old editions of Ninni’s daily column is placed in the lower half of the site. Similarly the left side of the page contains features of ‘most viewed articles,’ and ‘most commented on’ articles. The site also provides a panel for ‘selected articles’ by the editorial team. The dedicated ‘flip through’ icon can also be considered among the recycled content of the site, given that the actual content is already placed on the pages of the site.

⁴⁵ Links to the portal’s social media accounts were placed at the bottom of the front page

It is worth noting that the site lacked hypertextual linking features within the actual content of news stories, aside from hyperlinked headlines on the front page. This is understandable, given that most of the content was primarily scooped from print, and no editorial was involved in re-narrating the stories to suit the web.

It is important to note that *Almassae* content is generally very nationally focused; all news covered in all its publications and online are primarily local, e.g., pertaining only to Morocco.

In terms of the technical backing of the news site, the organisation relies on four servers: one for *Almassae* final issues for print; one for all the journalists, which acts as their content management system where the cycle of editing and reviewing takes place; a dedicated server for archived issues that holds all print content older than three days; and finally, one server for the photo library.

In addition to its own portal, *Almassae* Group has invested in a number of platforms to distribute its content. This includes an SMS news alert service. By February 2012, the portal had also advertised *Alkashke* service – a subscription system that provides a digital copy of each issue for tablet PCs before print distribution. However, the service was activated only in August 2013.⁴⁶ The traffic of the portal also shows that over 2% of its users come from mobile, although there is no dedicated mobile application or low-graphic version of the site.

4.4.4 Multimedia Design and Functionality Evolvement

There have been a number of key changes noted in the evolution of the *Almassae* interface design between September 2007 when it first launched and 2012. First, the use

⁴⁶ The service sends a digital copy of the once the print edition goes to the print shop. The <http://almassae.alkashke.ma/ar/> [last accessed 12 September 2013]. The service sends a digital copy of the once the print edition goes to the print shop

of multimedia on the front page – including pictures, graphic visuals, videos, and audio – has considerably increased over the span of six years. The percentage of overall visuals has approximately doubled since 2007. The dedicated space for visuals – such as headlines pictures, buttons, and cross-promotional icons – in *Almassae* portal design on 25 October 2011 (Figure 10), is noticeably higher than in that of the inception design on 21 September 2007 (see Annex).⁴⁷ For instance, the largest picture size for the main headline news article started at 116 x 131 pixels, while in the 2012 design, it reached 390 x 465 pixels. Moreover, there were no videos or animated content in the early design.

Secondly, the functionality of the site changed. The early site offered fewer services than the latter, mainly polls, search, and archive of the old print issues. There was no commenting, sharing with social media,⁴⁸ or rating of news articles in the first design. Nonetheless, the early designs in 2007, 2008, and 2009 offered a ‘newsletter’ subscription, which could email to users a copy of the newspaper print in PDF, if requested. Only in the 2010 re-launch of the portal has the design included registration of users. Advertisements were also absent in the early design, but began appearing with the 2010 design.

⁴⁷ As the earlier design was accessed through the Internet Archive, the actual pixel size is not provided.

⁴⁸ Recent scholarship has included new interfaces such as hypertextual links, interactivity, elements borrowed from digital games and social media tools, among multimedia packages (Jacobson, 2012).



Figure 10: Almassae front page design on 25 Oct 11⁴⁹

⁴⁹ after adding new video sections in April 2011

Since the 2010 revamp and until 2012, the design has slowly, albeit not drastically, evolved. Incremental changes have included adding more visual elements – particularly video – on the front page, and links to *Almassae* pages on social media such as Facebook, YouTube, and Twitter. Changes have also included removing some of the old services provided by the site, such as an Arabic press-review section, and an update of train schedules and prayer times– which were outsourced to an outside company. The site has also advertised the new service of *Alkashk* – enabling subscription to an email or SMS alert of new *Almassae* issues – which has not yet been activated as of February 2012.

Finally, minor changes were content-driven. For instance, when parliamentary elections took place in November 2011, a dedicated section was created in the print paper, and matched online by an extra button in the main menu.

4.4.1 Design Innovation Patterns

There are a number of observations worth noting with regard to innovation on the site. First, technical and financial advances shaped multimedia changes wished for in the site. In 2010, *Almassae* contracted an IT company to design its new portal. This time, unlike in the past design which placed design autonomy in hands of the IT company, the new site design code was given to *Almassae*. Because the design was based on the open software Drupal, and *Almassae* had the actual code, the webmaster was able to effect these minor changes with ease. Kaoutar, who has a degree in journalism graphics and another in IT, had the Photoshop and simple coding skills to alter some of the design. Kaoutar explains the process of making minor changes on the site:

The company made us the first design, then we took the site [code]...We have the code in html or http...I go into the code [on the content management system] and I just change the embedded object. That's it. This is the small code I change; but the main old code I try not to change, because it is like the skeleton of the site. (Personal interview, 18 October 2010 [0:20:23.7] and 19 October 2010 [0:26:56.6])

Secondly, between the stages following major structure redesign of the site (both after 2007 and 2010), innovation was slow and incremental, rather than drastic. The site evolution resembled a metamorphic process rather than a sudden rebirth. For instance, most of the changes that had taken place were primarily cosmetic and design anchored, rather than functional or service related. The latter often require a wider makeover of the entire infrastructure and engineering of the site, which would require more time, technical, and financial resources. Moreover, the general format of the design and the layout of the site – in terms of the three-column divisions – have not changed in size. A case in point is the addition of YouTube videos at the bottom. They were placed there since this required minimal structural change in the portal code, even though the editorial and technical team wanted more videos on the site. Kaoutar, who is often in charge of these minor changes, explains the reasons:

To change the design entirely is a bit difficult, it would be expensive and takes time. But we can change small spaces [e.g., sections]...big changes would require that the site be down. So we take [it] bit by bit. (Personal interview, 19 October 2011)

It is, hence, predicted that innovation in online news sites conforms to a reoccurring pattern: a cycle of metamorphic changes, followed by one drastic makeover. A log of the number of changes taking place on the *Almassae* site between 2007 and 2012 confirms that hypothesis.

How long the metamorphosis lasts is dependent on the financial and technical resources available at each news organisation. *Almassae* – being a small-scale news organisation – in this instance, had its metamorphic cycle spanned over two years on average.

Thirdly, and related to the above point, the decisions regarding the time of introducing changes and the type of changes are often limited by time and resources. When asked

why Photoshop and Drupal – free open sourced software – were used for the design, Kaoutar replied:

It is just an issue of time. At one point, the portal was down for a while, and because of the pressure of time we couldn't get something better. We thought of developing something simple and quick; we did it in almost one month. With all the requests from people, we just thought of starting something simple with Drupal. (Personal interview, 18 October 2010)

It is worth noting that, in 2010 – the same year the site was relaunched – *Almassae* experienced considerable financial hardship after being fined 6 million dirham (approx. US \$ 700,000) for libel.

4.5 Routines and Practices

This section looks into the different practices of the online newsrooms, and how the presence of the online news function changed the composition, routines, and dynamics inside the newsroom.

4.5.1 The Online News Cycle and Daily Routine: Patterns and Processes

Because online news content still primarily relies on print content, it is not surprising that the online news cycle tags along with the print cycle. In fact, the web content appears almost 30 hours after the print issue is on the streets. Before explaining the reasons behind that, let us look at the daily routine of the daily print team.

Figure 11 portrays publishing on a typical day of the week. For instance, a Wednesday starts around 9:00 a.m., with a quick editorial meeting with journalists. The meeting highlights the key news and issues for the Thursday issue, the leads of which journalists had already worked on researching the day before. After final stories are assigned, the team of journalists for the shift produce their pieces, which then are passed to reviewers and linguists for scrutiny before they meet the final eyes of the assistant editor-in-chief.

At noon, most stories are ready and the layout and technical production team's work begins. By 2:00 p.m., the Thursday issue is ready to go to the print shop.

The News Cycle at Almassae (print vs online)

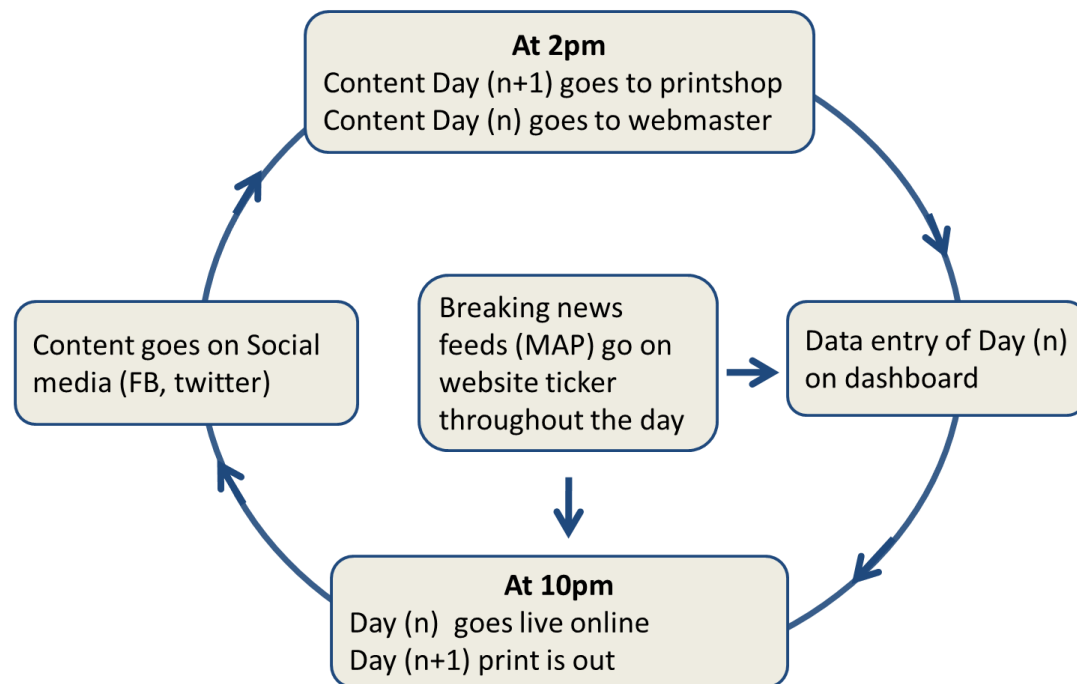


Figure 11: Almassae Print and Online Publishing Cycle

During that same day, and as stories are ready for publishing, they are placed on a dedicated server for the webmaster to pick up. However, at that moment, she would be uploading on the dashboard (e.g., the content management system) the articles from the Wednesday issue. That would be her task for the day. Throughout the day, the webmaster also checks the MAP regularly for any breaking news that can be fed into the live ticker of the site, while entering the 23-plus print page content to the dashboard (in copy and paste fashion). ‘Between [uploading] every page and the other, I go to MAP and check,’ explains Kaoutar (Personal interview, 18 October 2010). Meanwhile, the social media person – a journalist occasionally helping with Facebook – or the webmaster adds the key

stories from Wednesday to Facebook. This usually includes Ninni's daily column, and one or two key stories from Tuesday.

Around 10:00 p.m. on Wednesday, the final print of the Thursday issue would be out, and Wednesday's issue content goes live on the portal.

While the average print journalist at *Almassae* goes home around 4:00 or 5:00 p.m., the webmaster must continue working until 10:00 p.m. when the content goes live. This usually means that she works from home to upload the final bits on the dashboard, and ensures the entire updated issue goes live on the site. The average number of news articles uploaded online ranges from 70 to 80 per day.

But not all the content of the print version goes online, and not all content is updated regularly. The webmaster explains:

The items I do not enter are advertisements, the classifieds, the games, and entertainment page, and the cartoons—except the cartoons that come with the opinion page. Other than that, everything in the print version gets uploaded to the site. All the pages: politics, investigation, reportage, panorama, etc. Some pages are updated every week, like *Aqlam* (pens) [e.g., authors' columns] that are not [written] every day; so I upload them as they come...If there is a new poll [question] developed by Mr. Rachid or the assistant editor-in-chief, they give me the question and I add it. (Personal interview, 18 October 2010)

In terms of content editorial scrutiny, the content on the portal is reviewed by the editor-in-chief or his assistant the following morning. But it was observed that the editing and review of the web content is often a simple and ad-hoc, rather than systematic process at *Almassae*. This is due first to the limited human resources available to perform the task. Apart from the webmaster, and the recently appointed web assistant, most members of the editorial team are usually consumed working on the print issue for the following day. Second, given that 90% of the content of the portal is merely shovelled from the print version, often only very minor gatekeeping decisions aside from proofreading scrutiny are needed. Most of the text content and length is kept identical to the print version, with the

exceptions of some photo additions or headline fine tuning. Because of the structure of the site design, there must a picture for each news article on the slide show, even when the actual print article does not have one.

It was bewildering to see that the content of a given day was published late at night the following day, despite the fact that the final print articles are usually available in their final form at 2:00 p.m. It would make sense to work on the same content the journalists are working on. So, why work on a late issue when the web content should actually be even more updated than the print version? The print was leading online by a wide margin.

The same answer was repeatedly given: ‘in order not to compete with the print.’ The editor-in-chief expressed what many staff members believe:

We cannot put the newspaper [content] online the same day in order not to break the print sales. The idea is, when we have advertisements and income coming from the news site, then there would be a special team of journalists dedicated to writing for the site – from an editor-in-chief, to photographers and journalists, all specially dedicated to the site. In other words, [it becomes] a news portal, one that does not compete with the print paper. (Personal interview, 22 October 2010)

Kaoutar echoed the same perception, explaining the news cycle:

Any [breaking news] I find on MAP I enter on the ticker; but any other breaking news I cannot add until it is out in the print newspaper... It is to save the [print] circulation. If we put [latest] news online that is not in the print version, people would not buy the newspaper. (Personal interview, 18 October 2010, [0:42:04.2])

She, then, explained how competitive news sites copy their content:

We find other portals, because they are fascinated by the [*Almassae*] site, would take our links and advertise our content [on their sites]. [News sites like] *hebapress* and others. I was surprised; once I added the portal links, they would take all the pictures, the articles... (Personal interview, 22 October 2010)

But when asked whether they have any record or data to substantiate their fear that people would not buy the print version if they read the online version first, she answered:

On the contrary, the statistics show that even though they (e.g., the readers) see the print newspaper, they still check the portal at night, for the interactivity – in case the person would like to add a comment or their opinion on the site. It [the portal] is interactive, so they can share their views on what they read. (Personal interview, 18 October 2010)

Although it is possible that the newspaper readership might be dropping as a result of early broadcast of news online and competition, *Almassae* did not conduct any market studies to confirm this is the case. The motivation behind that management decision was ostensibly driven by a business hunch or general knowledge of the competitors. However, the gap between the perception of the online ‘threat’ to the print version, and the exact market demands proves, that the newsroom is still grappling with finding the right balance between the online and offline worlds.

4.5.2 Editorial Choices and Innovation Strategies

This section examines the different editorial strategies regarding innovation on the site. It particularly looks at the use and development of multimedia on the site, and how the gatekeeping, agency, and the actors’ network shape multimedia production and involvement in the newsroom.

4.5.2.1 Agency and Power

Editorial and innovation decisions in the *Almassae* online newsroom are often influenced by actors at two hierarchal levels: the first entry – or data entry level – and the senior level. The first entry level is that of the webmaster who, among other things, is in charge of data entry. It also includes the archivist – the IT assistant who handles old issues and the photo archive on the servers.

The decisions at that level could entail editorial choices such as selecting appropriate pictures for the news articles from the archive, or determining which secondary news (in the print paper) is to be placed in the key headlines slide show. As stated earlier, these

decisions are minimal considering that the content is merely shovelled from the print copy. Nonetheless, editorial choices of visuals are made on at least two of the ten key stories on the slide show, since some of these news stories do not have an accompanying photo in the print paper. In such instances, the personal judgement of the Webmaster or the photo archivist is what shapes those decisions, rather than an official editorial guide. As the webmaster explains:

I start entering one news item at a time, and I look for pictures from the archive on the server – [it is] organised with the exact date for each issue – Mounir [the archivist] places all the pictures relevant to the newspaper in the folder of the day. He sometimes asks me [which one is suitable]. He places more than one photo in the folder for me and I choose. Before, I used to search for the photos myself, but not anymore. (Personal interview, 18 October 2010)

In terms of technological innovation, the key decision maker is the editor-in-chief and the senior management. ‘Rachid is the one who chooses the design, the colours, and the pictures, the colours to suit our logo, the sizes, the menu style and the profile,’ said the webmaster (Personal interview, 18 October 2010, 0:28:23:7). The process usually begins with a meeting held among the senior management – mainly the administration and finance director, the editor-in-chief, together with the IT manager, the webmaster and the design developer. It is worth noting that the editor-in-chief’s vote carries more weight in such instances. He has the final say. Interviews with Ninni showed that his decision often weighs between three elements: bottom lines, available resources, and his aspirations for *Almassae* to lead the market and provide good value journalism.

4.5.2.2 Convergence Strategies

The study of *Almassae* reveals that different considerations and management directions are shaping their approaches to convergence. In its attempt to compete within an increasing multimedia and multi-platform news environment in Morocco, the organisation has adopted (albeit at different degrees) four strategies: the organisational

and technical integration of the newsroom, the use of a multi-skilled workforce, the application of flexible and user-friendly technology in all aspects of production, and the expansion of services into new media.

With regard to the organisational and technical integration of the online newsroom with the print newsroom, the management has invested in servers to share content digitally across the newsroom staff. While the content for the print was edited and managed through these servers, the webmaster had access to them in order to enter it online. Placing the webmaster and her assistant within the print newsroom structure was another strategy to help integrate the online and offline worlds.

The webmaster said:

If I have a direct question for the journalists, or I get a comment from a user to verify a news item, I go talk to them directly, or to the assistant editor in chief for correction. Even if the print issue had a mistake, this enables me to correct the online version. (Personal interview, 18 October 2010)

In addition to the integration strategies, the management seemed to employ young and multi-skilled staff for the portal. This is particularly true since the online team of *Almassae* is relatively small. For instance, the webmaster has a degree in design and information technology, in addition to her journalism background, which enables her to make small design changes to the portal in-house on top of the daily content entry. She also handles the photo editing and resizing for the portal, and when needed, fine tuning the portal design code. Meanwhile, it was observed that younger journalists were assigned to help with the Facebook account, or were even encouraged to take videos for the portal with their own handheld cameras. This confirms previous research on the increased use of multi-skilled staff for online journalism.

Finally, expanding the services into new platforms through user-friendly technology was another strategy to converge the newsroom. For instance, although the newsroom did not have [yet] an advanced news content management system, there was creative use of free tools such as msn messenger and email to assign stories and link orders to the online team. Often, the email services of *Almassae* were integrated with Google email to make it easier for staff members who are more familiar with Gmail.

4.5.2.3 Gatekeeping and Multimedia

Minor editorial decisions are often taken on the spot by the webmaster, with the help of the archivist. The editor-in-chief can sometimes have input on the length of headlines for key stories when placed online. However, there are no particular editorial guidelines for *Almassae*, neither for the writing style nor for the content format; most decisions are made based on the personal experience and judgement of the editor.

One of the areas examined in this case study was the editorial choices and logic: how decisions about news content and format are made and how they, in turn, impact the production of multimedia on the portal? Also, who makes these choices (i.e., who the gatekeepers are), what criteria guide the editorial strategies, and whether these choices are different in the online than in the print version of news?

First, one trend observed in *Almassae* is the salience gatekeepers give to the presence of pictures when content comes online. This often meant that the editorial choices of format differed between the print and the online versions of the same story. For instance, even when a news story appear in print without an accompanying photo, the webmaster still had to find a relevant photo for this news story before placing it online. As the *Almassae* webmaster confirms: ‘...if it is a main news [story], it is a must that I find a photo for it. I even contact the photographer to find [for] me a photo from the archive’ (Personal

interview, 18 Oct 2010). No news item goes online without a photo. This seems the implicit official practice, often as a result of editorial team decisions, but also the portal's existing infrastructure – which embeds ten pictures in the front page main news slide show by default. In other words, every news story that makes it to that news banner must be accompanied by a photo.

As noted earlier, the gatekeeping choices at *Almassae* are often based purely on the webmaster's own judgement and are done on an ad hoc basis. When there is no print picture available, for example, the webmaster chooses the pictures to accompany the news items online. The webmaster – who is in charge of entering the print version content to the site in a shovel-ware style – often consults with the archivist if she can't find a print photo.

As for videos, it is apparent that editorial choices made about the use of videos at *Almassae* are often in the hands of one person: the editor-in-chief. Neither the webmaster nor the journalists have a say in the matter, except by making occasional suggestions. The IT manager explains:

The first thing once we receive a video – Rachid would tell us whether it is legal or not [to embed it on the site]. Once he approves it, we could edit it if there is any content against moral values. (Personal interview, 21 October 2010)

Videos are often emailed to the editor-in-chief's mailbox by online readers, and if approved, they are sent to the webmaster to upload on *Almassae*'s YouTube page and embed to the portal.

4.6 The Francophone Influence on the Newsroom

The cultural and political influence of Morocco is historically embedded in ways that equally shape the offline and online newsrooms. The French colonial history has left its mark on every aspect of Morocco's cultural production and consumption, including the

media. Like other *Maghreb* countries, French is the unofficial second language of Morocco, and is universally taught in public and private schools next to Arabic. Most postgraduate degrees, including media and journalism studies, are studied through French curricula (Rampal, 2009). Although, the illiteracy rate exceeded 43% of the population in 2004, more than half of literate people speak and write French (Haut Commissariat, 2004: 25) and all educated Moroccans speak it fluently. The language is predominantly used in day-to-day conversations over Arabic, especially among the elite and media people. Even Moroccan laws were initially based on French laws.

In media, TV channels, newspapers, and radio stations are in French, in addition to Moroccan Arabic. Some of the most read newspapers are *La Vie économique*, *L'Economiste*, *L'Opinion*, *Le Matin*, *L'Indépendent*, *Liberation*, and *Aujourd'hui Le Maroc*. Moreover, public service television stations use formal French, in addition to formal Arabic, with the exception of one magazine and a couple of newspapers in other Moroccan native dialects (Zaid, 2011).

But what is striking is how the Francophone culture influences the day-to-day news production practices of a newspaper such as *Almassae*, despite it being an Arabic newspaper. Most of the staff members at *Almassae* speak French fluently and often interchangeably with Arabic. And although the content of *Almassae* print and *Almassae.press.ma* is in Arabic, the back-end information infrastructure of the site and the editorial system are entirely in French. For instance, the portal content management system on Drupal is designed in French. All fields, codes, and categories are displayed in French, even though the actual news content entered is in Arabic. Moreover, most servers and archives are named in French categories, and hosted in France and Canada (a country that officially uses French alongside English) – albeit the largest hosting companies are based in the US. The observed staff's aptitude for English compared to French was

relatively poor (like most educated Moroccans), and seemed to have been a factor in this technological choice.

The Francophone influence also extends beyond content management and into the very heart of online innovation. The French news sites (e.g., developed in France) are often among the first points of reference (in addition to Spanish) upon which the team relies. From the interviews with the online team, both the technical and the editorial staff regularly consult French news sites, not only for news acquisition, but also for ideas about new design trends. When asked about perceived ‘successful’ news sites, the team mentioned *La Vie Economique*, *Maghreb Confidentiel*, and *Info Maghreb*.

Reflecting on *Almassae*’s aspirations for its portal, the IT manager shared his perception of Arabic compared to French news sites: ‘We have found that the problem with the Arabic newspapers, especially the Moroccan [ones], is that their portals are not well crafted (Personal interview, 20 October 2010). This subtle Francophone bias indirectly shapes the decisions around design and innovation, as the team’s key sites to aspire to, are largely French (or Moroccan French). For instance, one distinctive feature in French news websites which was observed to be similar in *Almassae*’s, is the reliance on two to three-columns front page designs⁵⁰, rather than the four to six-columns designs that are more common in American and British news websites⁵¹. Moreover, *Almassae*’s idea of displaying video horizontally across the page was observed in Le Monde French news website (compare Figure 10 and Figure 12).

⁵⁰ See examples of French news websites such as Le Figaro ; Le Monde ; Libération; Le Nouvel Observateur.

⁵¹ See for example The Guardian and New York Times

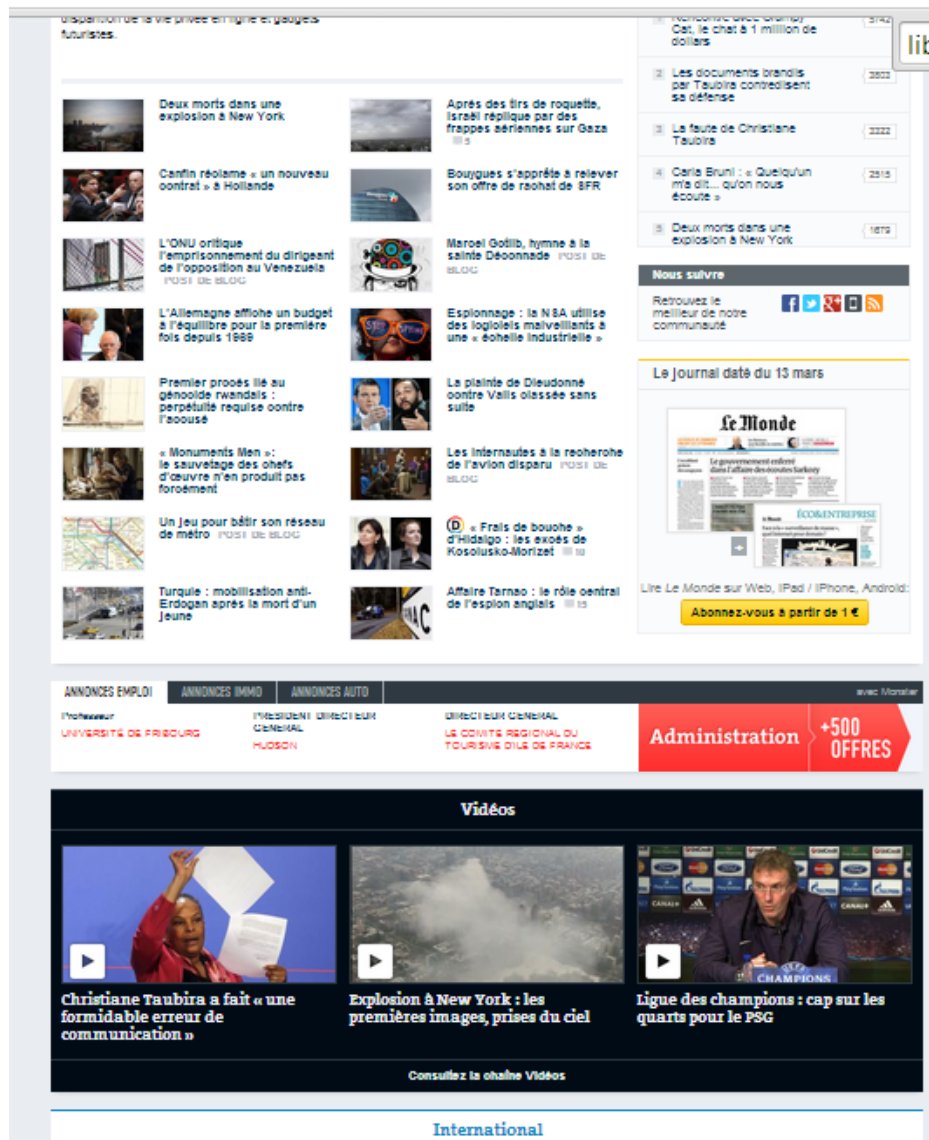


Figure 12 Snapshot of Le Monde frontpage video display⁵²

4.7 Sub-case Study: Political Context and the *Almassae* Portal

Online news does not operate in a vacuum separate from the political context. News organisations' practices and production choices are often shaped by the political environment in the country within which they operate. This is quintessentially true in the Arab World, where news outlets – whether online or offline – are often bound by the political environment and its daily contestations. What happened to *Almassae* is a strong case in point.

⁵² Le Monde Frontpage on 12 March 2014

4.7.1 The Editor-in-Chief-*in-Jail*

On 28 April 2011, Rachid Ninni – chairman of *Massae* Media Group and editor-in-Chief of *Almassae* newspaper – was arrested amid police allegations of jeopardising the national security and publishing unverified news (*Almassae*, 4 May 2011). A few months earlier, Ninni had dedicated a number of his columns to writing about corruption in the Moroccan Secret Intelligence services – known as ‘Direction générale de la surveillance du territoire’ (General Directory of Territorial Surveillance), as well as some senior officials (Daadaoui, 2011). *Almassae* journalists said that Ninni was prosecuted for his articles about corruption among associates of the King, including one of the King’s closest allies and head of the Authenticity and Modernity Party – Fouad Ali El-Himma (RSF, 2011).

On 9 June 2011, following repeated trial adjournments and refusal to release him on bail, Ninni was charged for disinformation and attacking state institutions, public figures, and the ‘security and integrity of the nation its and citizens, according to articles 263, 264, and 266 of the criminal code (*Aljazeera*, 2011; RSF, 2011); and was sentenced to one year in prison with a fine of 10,000 dirham (around US \$1,145). The vagueness of the charge was seen by some as only to mask the true nature of the indictment against Ninni, and that he was rounded up for the totality of his critical stances on the government, and at times strident comments against immorality in Moroccan politics (Daadaoui, 2011). Ninni heavily criticised the lack of independence in the judiciary system, and revealed many corruption cases involving names close to the Palace. The trial was based on the Criminal Law and not the Press Law which supported the impressions of Moroccan media activists that the ruling was more against Moroccan press freedom, rather than any particular misconduct (verryreef, 2011).

The majority of the private press reacted with silence, either out of fear or ambivalence, given what some Moroccans regarded as contentious columns. Only ‘*Alsabah*’ newspaper – one of the competitors of *Almassae*, showed support for Ninni and condemned what happened. And although the news organisation intensified its campaign to free Ninni, including a ‘one-million signature’ call to release him, all efforts were to no avail.

This incident suggests that the King is not the only one above the press in Morocco – it is also his entourage. The arrest of the editor-in-chief of the top newspaper in the country and the most read columnist was an implicit warning to all other media organisations. The three red lines of religion, land, and the King – and now his entourage – seem to persist in Morocco, despite the liberalisation of the media. ‘I hope to be the last journalist in Morocco to be trialled for his writings by the Criminal Law.’ Ninni’s first words upon his release echoed his old battle with the state repression of media: ‘We want to have a Press Law, through which we are referred as journalists not as criminals. My battle is the judiciary independence’ (*Aljazeera* News Broadcast, 28 April 2012 [min 1]).

Ninni was released after completing his jail term 28 April 2012, and shortly after resigned from *Almassae* (having been unable to sustain his investment shares in the newspaper). By 17 November 2012, Ninni launched a new daily print paper – *Alakhbar* [The News].

4.7.2 Economic and Readership Impact

The implications of this incident seem to have constrained more than freedom of the press. The aggressive measures against Ninni had immediate repercussions on the newspaper’s financial health and editorial edge. Ninni’s daily column – *Shouf Tshouf* – was the main driver for the newspaper’s popularity, as many readers bought the newspaper only to read his column. The column was also the second-highest visited page on *Almassae.press.ma* following the front page; and having been shared on the

Almassae's Facebook page, it received high readership and commentary. Moreover, the renowned author also wrote regular columns in all other *Almassae* publications, including the weekly magazines and *Almassae Sport*.

It was, therefore, not surprising that, with Ninni's detention and his daily column being held in abeyance, the print and online newspaper suffered drastically. Circulation plummeted during the first six months of Ninni's detention, while the site traffic fell by nearly 50% from average of 64,000 visits per day to 32,000 between 1 April and 1 September 2011 (with the exception of the week beginning 29 April when Ninni was arrested) (Google Analytics, 2011). As Figure 13 also illustrates, by the beginning of 2012 the weekly visits fell to 20,000 – a near one third from the same time one year earlier (Google Analytics, 2012).

In depth traffic analysis revealed that the peaks in traffic were event-driven rather than design driven. For instance, the highest traffic on the site was during the week of the political demonstration in Morocco that escalated in February 2011, led by what was then called 20 February movement. The site also witnessed high traffic when Rachid Ninni got arrested, attracting over 519K visitors in that week (24-30 April 2011). Aside from the first week of the launch (25 April – 1 May, 2011) which attracted 232,000 visitors to the site, the key peaks matched interest in particular events.

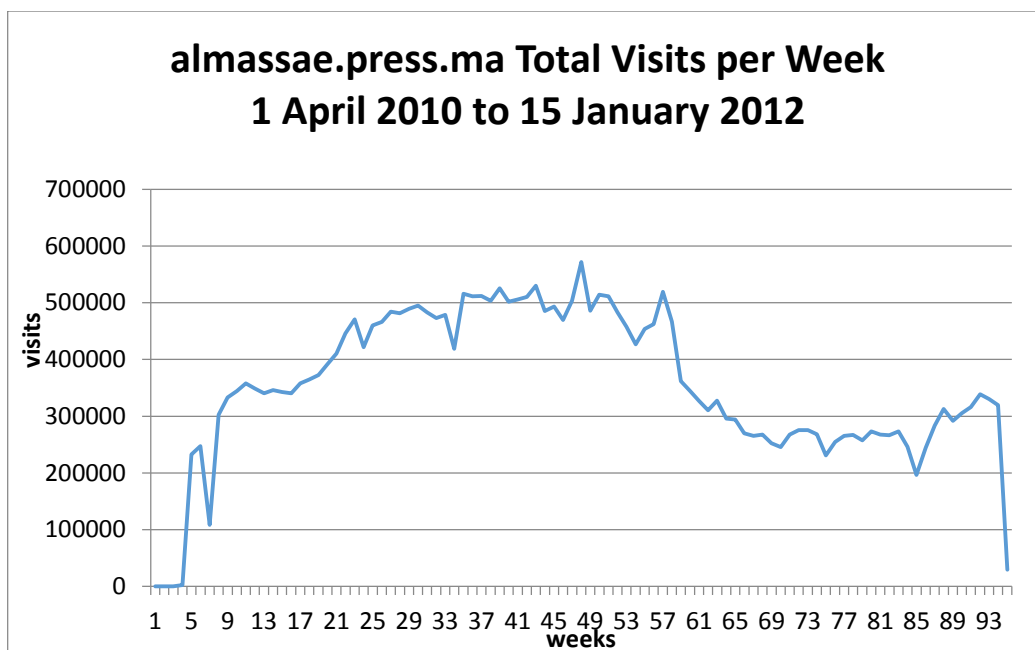


Figure 13: Almassae.press.ma visitor traffic (1 Apr. 2010 - 15 Jan. 2012)

The news organisation's financial beating took its toll on its staff. *Massae* group dispensed with all of its staff members in four of its print publications: *Awwal*, *Puce*, *Almassae Sport* and the Spanish *Alqantara* by end of 2011 (SNPM, 2011). Meanwhile, the IT manager – who is also the portal administrator – had left, leaving only the webmaster to handle everything technical related to the portal. Even the casual junior assistant who was trained to help the webmaster with the content entry of the portal was released for lack of resources.

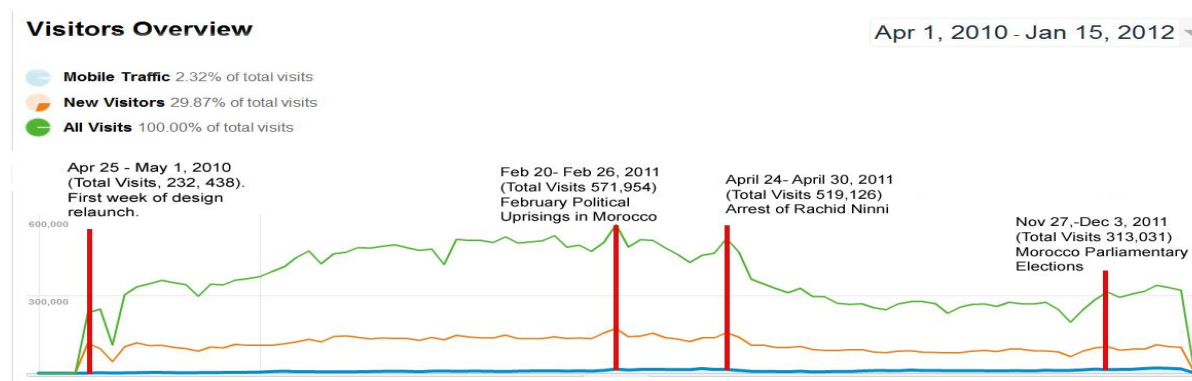


Figure 14 Traffic change as a result of events (1 Apr. 2010-15 Jan. 2012).

This was not the first time that the newspaper suffered financial stress because of its vociferous stances against government corruption. Back in 2008, *Almassae* faced similar trouble, when it was faced with a hefty fine of 6 million Dirhams (approx. US \$700,000) after four judges sued Ninni for libel and defamation against one of the King's entourage in Kasr Kabir (menassat, 2009). The fine, which was considered the largest in the history of the press in Morocco, nearly caused several editorial team members to depart and the organisation to almost go bankrupt (menassat, 2009). There were also four court cases against Ninni in 2010 with similar but smaller fines.

The economic implications of this political environment were directly felt on the portal, particularly for a small-scale news organization like *Almassae*. The administration plan to revamp the portal and introduce a team of online journalists to the portal in 2011, has largely been put on hold since the incident, as *Almassae* lost its main source of income (Personal interview, 24 February 2012). The online team managing the portal was first reduced to the webmaster who, in turn, had to bear all the work related to the portal on her own; as the IT manager was released. By early 2013, the webmaster's contract was also terminated, and a junior staff member (paid half the salary) was hired instead. As the newspaper's online presence had not (yet) achieved much online revenue, hard financial losses in the print version meant that all remaining revenue focused on the print's survival.

Over the span of two years, as seen in Figure 15, the harsh political environment of media in Morocco damaged the economic health of the news organisation which was detrimental on its traffic. Being a small-scale independent news organisation, *Almassae's* financial and human resources were particularly struck, threatening its very ability to survive, let alone innovate online.

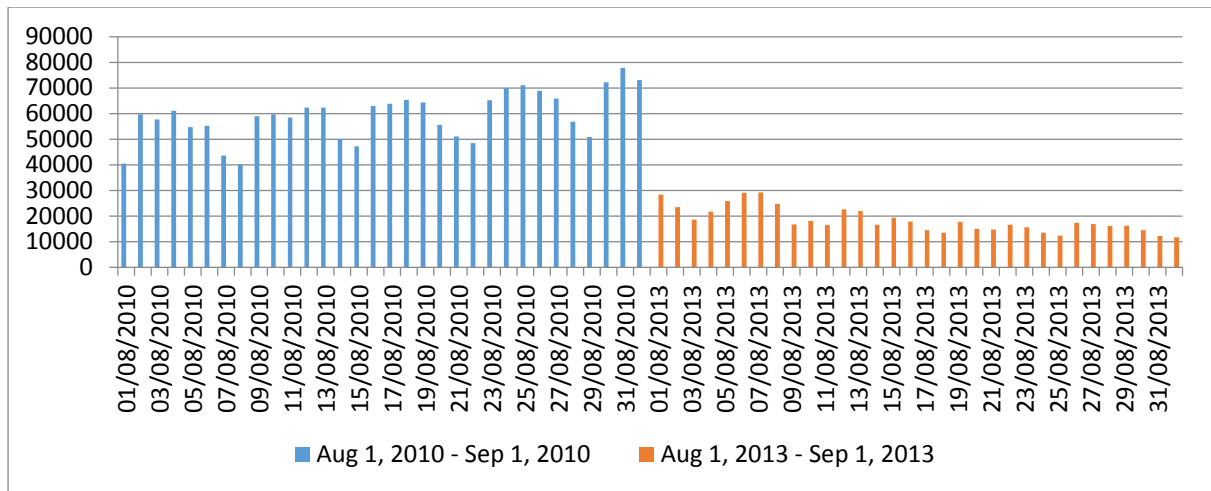


Figure 15 Almassae portal's visits during Aug. 2010 and Aug. 2013 shows a drop.

4.7.3 Impact on Editorial Decisions

Editorially, the portal has also suffered. The absence of Ninni – as its owner and chief editor – has influenced the portal's content production and design. Despite the fact that the assistant editorial manager filled Ninni's shoes during the latter's absence, the shock of the event on the staff took its toll on the news content and its presentation online. During the weeks of the incident, seven out of eight lead stories (on the picture slide show) were dedicated to covering the news of Ninni and his arrest (or calls for his support). As Picture 3 illustrates, the front page of *Almassae* portal on 30 April 2011 – similar to the print copy – was dominated by news of the event (and his picture behind bars). This included the number of news items, as well as the overall number of visuals dedicated to the news.

The news site's general performance was also affected, as the frequency of updating the content online was not like before, especially with the growing shortage of staff. While such a drama would not be expected to go unnoticed in any news organisation's coverage, the scale and scope of impact on the content seemed much larger in *Almassae*'s case,

given the size of the organisation. It was evident that the editorial line was consumed by its own ordeal, as the news organisation itself became the centre of the news.



Picture 3 The front page of *Almassae.press.ma* two days following Ninni's arrest.

4.7.4 Impact on Multimedia and News Presentation

The political environment leading to Ninni's arrest had ramifications, not just on the news content of *Almassae* (both print and online), but also on its news presentation online. This is particularly true with regard to the design and production of multimedia, notably videos and visuals. A few days after the detention, the top advertisement banner of the homepage displayed over a red background the organisation's public plea: 'Freedom for Rachid Ninni – Freedom for the Press' (see Picture 3). Moreover, in June 2011, an infographic depicting a daily 'count' of the number of days Ninni had been imprisoned was introduced in a new space on the front page, which required a slight shuffling of the layout design. It appeared next to another infographic (at the left) calling for a national campaign to collect one million signatures to free Ninni (see Figure 10 p. 137). Satirical

cartoons, which had previously been placed in a dedicated section, were also positioned on the front page, frequently depicting mockery of the state of the press. As for videos, at least four were circulated on the site capturing news that varied from amateurish individual footage of protests calling for the release of Ninni; to YouTube excerpts of professional coverage of the incident from *Aljazeera* and other news organisations.

In addition to the direct news content displayed on the site, the team deployed social media to raise awareness of the event. At the very bottom of the page, links to *Almassae* social media accounts were introduced. During the following months, a ‘The National Campaign to Free Ninni’⁵³ was launched on social media through a number of dedicated Facebook pages. The campaign was linked to a petition on the portal through a large infographic in the left column of the front page. In the same year, traffic analysis showed approximately 40% of users chose news articles before coming to the site. This suggests that social media and other referral mechanisms were increasingly contributing to news consumption.

Despite the fact that the editorial decision was primarily content-related, the design was slowly changed to cope with that content. For instance, the number of videos on the front page increased from one— placed on the left side of the page – to three with a larger space placed at the bottom of the page. Similarly, all infographics were introduced to position the event in the centre of the design. But why was that decision taken? And how did the organisation find the resources to do it, despite its dire financial situation? When I asked the webmaster, she shared that all new design related to multimedia was done in-house, despite the shortage of staff. Secondly, the decision to advance those changes was partly driven by the ‘high demand on video by users’ who seemed eager to watch the incident as it unfolded (Personal interview with webmaster, 23 February 2012).

⁵³ Facebook page <http://fr-fr.facebook.com/ninyfree> [last accessed 12 December 2011]

In a way, the political event pushed innovation in design despite the financial and human damage it caused. The ordeal drove the editorial line to find new ways to bring the attention of online readers to the problem, and find creative but cost-effective ways to attract online readership. While all these presentation changes could have taken place eventually as the site evolved, it is apparent that the exigency of the political incident had played a role in speeding those decisions, despite the shortage of staff. Whether through the maximising of photos, infographics, cartoons, and videos, or the cross-posting with other social media, the decisions to highlight the event were significantly shaped by the political and personal nature of the event.

4.8 Conceptions of Users and Multimedia Content

4.8.1 Perceptions of Users and their Preferences

One of the factors that shaped innovation inside *Almassae*, and particularly the adoption of multimedia production is how the newsroom perceived the audience or the portal's online readers. From the participant observation, and from interviewing the team, a number of general themes emerged, despite the individual differences among the staff.

Firstly, most of the *Almassae* team – both editorial and technical – saw the online users as ‘technically able.’ The users, compared to regular print readers of the same newspaper, were imagined as fairly familiar with online technological developments. ‘The online reader is a modern reader, [someone who is] abreast with technology, and has an Internet subscription,’ said the assistant editor-in-chief (Personal interview, 19 October 2010).

When asked about the difference between the online reader and the print reader of the same newspaper, one staff member explained:

In my view, the print reader is a romantic reader, [s/he] has some nostalgic feeling about the cultural and historic value of the print paper; but the online reader is not.... The online reader

is a modern reader, they might be 'lazy' and even cold [e.g., distanced when it comes] to the intimacy of print. They read a free subscription [online], rather than pay for a paper. (M. Aghbalou, Personal interview, 19 October 2010, [0:28:02.7])

Meanwhile, the editor-in-chief pictures two different 'worlds' of the offline and online readers:

The electronic reader is familiar with the latest technological developments. He has an obsession with everything related to the 'virtual and abstract' world...They search for the information in an atypical way. They look for information in blogs, forums, and social network sites. They are more 'plugged in' [e.g., connected]...Meanwhile, the print reader is a conventional reader; he is more in touch with the real world. (Personal interview, 22 October 2010)

Secondly, and at the socio-economic level, online users are perceived to be upper-middle class intellectuals – people who mainly work in jobs that 'enable them to browse the Internet.' Ninni argued that some work organisations block access to the *Almassae* portal from their employees because of the time consumed on the site (Personal interview, 22 October 2010). But one staff member mentioned that some of the users are housewives checking news and 'cooking recipes' from *Almassae* online at home.

Thirdly, the newsroom staff explained how they thought users behaved on the site. There was a general feeling among the editorial and technical team that the online reader had two things: more power to choose and something to say. The IT staff mentioned how the users were able to 'select news by topic and search [for same author's or category of news] over-time, rather than sift passively through a print paper (M.E, 19 October 2010). Moreover, repeatedly, users were perceived as being eager to interact with and comment on the site, beyond the mere 'consumption' of news.

A fourth conception of the users had to do with the overlap between the online and the offline worlds. One portal member mentioned how some users actually are print readers who come to the site at night specifically to comment on what they have read (Personal

interview, 22 October 2010). This seems an interesting perception, given that the site often lags 30 hours behind the print version. Describing Moroccan users in Diaspora, the editor-in-chief also noted an interesting observation:

Morocco has approximately three million Moroccans living abroad. Those people return to Morocco during the summer, or during holidays. They [normally] read *Almassae* online, but when they come back to Morocco, they buy the print newspaper. Those readers are online virtual readers, but when they come to Morocco they become real readers. (Personal interview, 22 October 2010)

But to what extent were these conceptions about the users true? And how were they formed? Some of these conceptions seemed to have been shaped by emails from users with comments and suggestions on articles or design, that have trickled over time and which staff regularly received. Although I was not allowed access to those emails, the online team repeatedly mentioned ‘users send us requesting’ such and such design or feature. Moreover, the site traffic data, especially the ‘most-visited’ and ‘most commented on’ articles are another source of insight that gives a more immediate feel of the users’ preferences. Nonetheless, the news organisation has not done any in-depth audience research to compare the readership between the print version and the portal. The actual site traffic analytics are also only followed by the IT manager and the editor-in-chief; and the data is often used in an ad-hoc fashion rather than streamlined into a systematic process that feeds into understanding the market of news consumers, or into setting the future design strategies of the site.

4.8.2 User-driven Innovation

Even with the absence of elaborate market research on users or readers, one pattern seemed apparent from observation and all of the interviews. There is a general ‘closeness’ to the readers, a sense of proximity that was created through the direct and immediate communication between the editorial team and the users as a result of interactivity on the

site. This was seen to be unmatched by the print sister, in which letters mailed to the editors have a weaker voice. Post letters take longer to reach the newspaper, and there seems to be no person in charge of handling letters to the editor, unlike the web, which has a dedicated webmaster in charge of checking emails on a daily basis. The news editor nicely echoes that point:

The news site gives the reader the opportunity to interact with what is written, that the print does not allow. [Yes,] the reader can write a letter or a comment to the editor, but with the portal, the users can directly give their opinions on every article. This is an important interactive part that the site allows and not the print. I think this is the magical touch of the site. It gives everyone the chance to have a say, and the users become part of the online newspaper. (Personal interview, 22 October 2010)

One example in point was the placement of a PDF version of the newspaper print content. Every day, a PDF copy of the print paper, with its exact format and layout, is displayed in a prominent location at the middle right of the portal. The print PDF, once clicked on, allows an interactive flash view which mimics the feeling of flipping the pages of a print paper. Even though the entire content of the print (aside from advertisements) is uploaded into the news site sections, the *Almassae* editorial and technical team decided to provide this extra interactive reading service to the users. One team member explains the rationale: ‘This feature allows readers abroad who have nostalgia toward the print paper to read it while abroad.’ (Editorial staff member, Personal interview, 18 October 2010). It is worth noting that, between 2009 and 2011, while the estimated online readers out of Morocco approximate to three million (Ninni, Personal interview, 22 October 2010), the average views of the PDF does not exceed 18,000 readers (usuu.com observation, 2010). Although this number is minute compared to the over 70,000 daily visitors to the site, the main driver to introduce this feature was the request by users. What the webmaster explained showed a strong user-driven receptiveness by the online news team:

If there are many [suggestions], I take them into consideration. If today I get ten emails with the same suggestion, I know there is a need. I tell it directly to Rachid [the editor-in-chief]. Sometimes [I would tell him] the first time [I receive a comment]... until now there have been no suggestions for design that we have refused. (K .L., Personal interview, 19 October 2010)

Whether every suggestion gets implemented is unlikely, but it is clear that users' demands are not only regularly heard, but often met when it comes to design.

Moreover, some of the services and features discussed in section 4.4 were provided in response to users' requests. The portal particularly offered these services after traffic analysis showed that the highest traffic of the week is usually on a Monday – the first working day of the week; while the lowest is the Sunday – a weekend. Tools such as the Train updates, for instance, were prompted by users request to find 'everything on the site, while they are at work so they would not waste time calling the train company' (Personal interview, K. L., 18 October 2010).

4.8.3 Perceptions of the 'Ideal' News Site Design

Since technological development is among the factors that shape innovations in newsrooms (Boczkowski, 2004b), the knowledge and perceptions of a 'good' or 'ideal' design are also important factors that shape decisions and design strategies. The case study examined how the online newsroom editorial and technical staff imagined the 'ideal' news site. What was the ultimate model? And where was it derived from? The newsroom perceptions about the ideal characteristics of a news site format and design were often shaped by the news industry – including competitors – more than the news market. The editorial senior management and the technical team often referred to new technological features on competitive news portals, many of them in Morocco, other Arab countries, France, or Spain. In such cases, the reference point to what was perceived as a professional or 'ideal' multimedia design was based purely on the general trends in the

market. When asked about future aspirations for the *Almassae* portal, the IT manager said:

We are thinking of adding voice technology [which enables] listening to the articles; you click on a news article that is [voice] recorded, and you can listen to it. This is a technology that is in place in some new sites like the Lebanese Alnahar, and the French Liberation news site. (Personal interview, 21 October 2010)

Despite having no specific market research records on the popularity of such voice technology on those sites, the senior management was excited about introducing it to *Almassae*.

What is striking is that, while there were some similar sites followed by all the online news team, there were often some differences based on personal choices derived from individual work or educational experience. For instance, both the IT manager and the editor-in-chief – two key decision makers in the portal innovation – had lived and worked in Spain for years before returning to Morocco. When asked about their preferred news sites, they both mentioned Spanish and French news sites.

In general, when asked about the characteristics of a professional or successful news site, the majority cited the presence of multimedia – e.g., graphic, video, live updates, as well as other interactive features, such as polls, commentary, and sharing. For instance, seeing video as an integral part of the news was noted by the IT manager:

I'd love to see a video accompanying the news article, to be embedded. Videos are very important because they are easier to watch and they explain more than reading the entire article, for example' (Personal interview, 19 October 2010).

But the team's regard of the content as a strong driver to an attractive news site was central in most interviews. They perceived that the true value of a successful and ideal site is in its content 'newsworthiness.' 'The most attractive news items are those related to the problems of the people and the reality they live in,' Kaoutar puts it simply

(Personal interview, 18 October 2010). This vision was shaped by the actual site traffic data, as main traffic peaks were news-driven rather than design-driven, according to Google analysis in that period.

The editor-in-chief, however, had a wider vision for a ‘true news site’ involving more than the design:

The news site should be part of the news organisation but have its own journalistic team that is dedicated to writing news especially for the portal: [writing] follow-ups especially for the portal, [taking] pictures especially for the portal, and their news is not necessarily published in the print version. Perhaps there could be a proportion of news that is published in the newspaper and on the site, but the site gives the ability to add the latest news updates...we close the print version around 4:00 p.m., but what happens from 4:00 p.m. until midnight – these ‘media-wasted’ hours can be used in the portal. The site then becomes complementary to the print. (Personal interview, 22 October 2010)

4.9 Discussion and Conclusion: Innovation within Media Restraints

The first few years that *Almassae* published its portal showed evidence of the evolution in the journalistic product as an end result of merging the culture of print journalism with the layer of new multimedia technology. The number and sophistication of ‘transcoded’ multimedia packages on the site – such as infographics, videos, or interactive features – were slowly growing to include new forms of journalistic expressions that were not originally in the print. However, some of this journalistic product persisted in the print culture. The insisting on sharing a ‘PDF’ version of the exact print copy of the newspaper online was a case in point.

Over time and as *Almassae* portal evolved, grappling with new forms of displaying and producing transcoded and multimedia content was evident. For instance, reaching out to new distribution platforms such as social media, enabling user interactivity, or experimenting with video content despite the lack of expertise in TV production, were all processes that were neither unilinear nor systematic. They metamorphically emerged

online, following cycles of news design evolution. Moreover, there was a high level of experimentation and ad-hoc developments in this process, which were driven by users' demands, in a trial and error fashion.

As this chapter attempted to demonstrate, the underlying rules governing online innovation at *Almassae* were partly similar to those that shape innovation in traditional newsrooms. The processes and editorial decisions involved to bring about these journalistic products were partly driven by some of the traditional cultures of print journalism (Boczkowski, 2001, 2004a; Paterson & Domingo, 2008; Altheide & Snow, 1989). The media logic, the need to (eventually) make profit out of news production, time pressures, the industry, the market, and the internal financial and human constraints remained the same drivers that determine investing time or money in any 'new' artifact. For instance, the financial and human resources of the organisation, shaped the multimedia development of the website, as resources determined the newsroom staff workload and their available time to bring new ideas to life. Moreover, the technological advancements and what other news competitors bring to the industry were critical in shaping the newsroom's visions of innovation.

Nonetheless, two primary factors remained particularly strong in shaping innovation decisions. These were, firstly, the drive to please the users – who have become far more engaged with the newsroom through the site. For instance, users comments and daily feedback emails with requests, complaints, and suggestions provided an immediate barometer of what needed to be changed on the portal and how. This 'intimacy' with the online reader was found much more strongly and frequently than with its print sister, and consequently influenced strategies of news design. Similarly, and to a lesser degree, data gathered about users' behaviour on the site shaped editorial decisions, as they offered an immediate and inexpensive indicator of readership – not available for the print paper.

Secondly, the political context in a pseudo-democratic regime such as Morocco was shown to be a key determinant of what can or cannot be done online. In particular, the advent of the Arab Spring that began in Tunisia and Egypt in January 2011, and was followed by the February uprisings in Morocco, intensified the clash between the state and the media. As demonstrated in this case, the government's political and financial grip on the press, meant that news organisations such as *Almassae* were left with few ways to grow offline, let alone online. Meanwhile, the political context was not just constraining, but sometimes driving this innovation. In a way, the escalation of events pushed innovative ideas in content presentation, especially with regard to multimedia. The use of videos and infographics are a particular case in point. The increasing availability of online video images, such as on YouTube and other news sites, has created a resource for other news providers. The newsroom found ways, albeit pressuring the limited remaining staff time, to change design without any extra cost.

As this chapter attempted to show, and the diagram below illustrates, these factors vary in weight and influence, and constantly interact as constraining or enabling forces to move innovation decisions. For instance, the political context of the country – in terms of its laws, regulations, and government practices against journalism – especially in politically volatile times, became a strong determinant of the financial and organisational ability of the newsroom to produce content, and find innovative ways to present and distribute that content online. These factors interact in a constant negotiation process – albeit in subtle ways – and are not working in isolation. This negotiation happens in subtle ways.

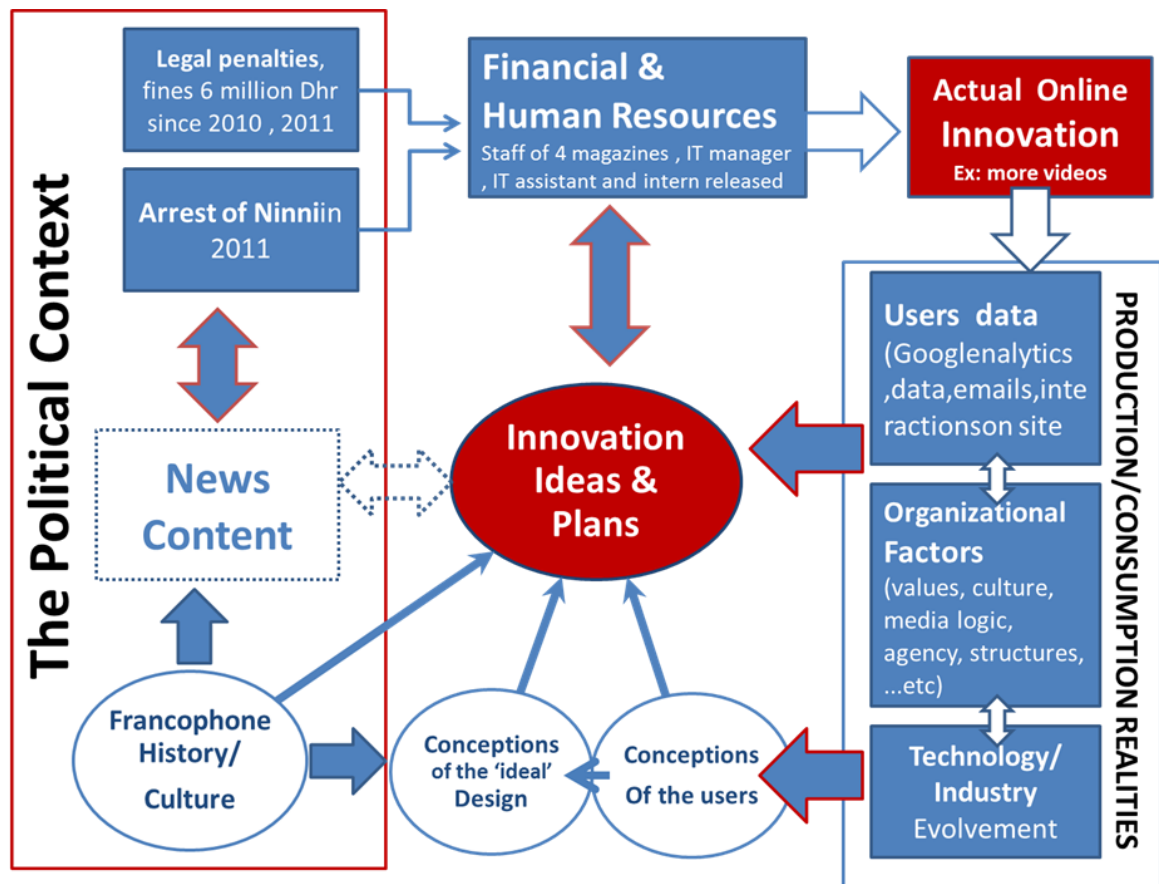


Figure 16: Factors and events shaping multimedia innovation at Almassae

Previous scholarship has well documented the various technological and organisational factors that shape news innovation and news presentation (Boczkowski, 2004a, 2004b; Brannon, 2008; Mitchelstein & Boczkowski, 2009; Paterson & Domingo, 2008; Weiss, 2008). However, despite many similarities with the challenges that constrain news production in the wider online world, this case study exposes a third dimension particular to countries with more limitations on freedom of the press. That is the political context and the constraints it imposes. Even though Morocco ranks among the top third of Arab countries in terms of press freedom, political restrictions directly constrained the organisational and financial vitality of news production. As the sub-case study has shown, the repetitive fining of the organisation and the jailing of its owner depleted the human and financial resources needed to survive as an independent news outlet, let alone to

innovate. In a way, the story of Ninni's arrest, as extreme as it was, unveiled the fragility of online news. The case of *Almassae* revealed that the two most important factors shaping the organisational decisions and strategies for innovation were the political environment, and data on users and their preferences.

Lastly, while the events in this particular case study were unusual, the extremity of the case highlighted a reality that already existed over many years in Morocco, and in other national contexts, where editors have crossed the political boundaries of acceptable journalism. It is acknowledged that there is a wide grey area where other Moroccan newsrooms could have less harsh constraints than that of *Almassae*, and this case might not be one of generalisation. But given that two other newspapers have been closed down since 2008, the example is not an exception. Moreover, the austerity of *Almassae*'s ordeal provided in and of itself a unique and crystal clear lens through which to view the interplay between the political context and technological innovation. As previous studies on the sociology of journalism have shown, times of war and political crisis often provide opportunities for journalism to revisit the format and presentation of its products (Altheide & Snow, 1989).

5 Chapter Five: *Almasry Alyoum*, Egypt: News Innovation in the Context of Regime Change

5.1 Introduction

A few hours before midnight on Thursday 27 January 2011, Nora – the portal manager of *Almasry Alyoum* – received leaked news from an ISP provider that the Egyptian state would shut the Internet down. There were doubts in the newsroom, but this leak was confirmed when the Internet and mobile communications were blocked the next morning. The Egyptian government had virtually thrown a kill switch for the Internet and telecommunications across the country.

Mass protests against the Mubarak regime, planned for that Friday, were expected to galvanise scores of demonstrators and the *Almasry Alyoum* online team was determined, despite the blackout, to find a way to convey the news online. Several attempts to navigate around the block failed. But a source had leaked that the Semiramis Hotel was one of the only places in Egypt that had an Internet connection, thanks to its satellite links for Internet services. This outlet provided a means for publishing the portal's news content.

By the next day, twenty members of the *Almasry Alyoum* portal were crammed into a small hotel room in the heart of Cairo, overlooking the Qasr El-Nil Bridge where the protests were erupting, to broadcast the news. This small stuffy room was transformed into a mini-newsroom buzzing with laptops, a 24-hour TV channel, and staff uploading textual and multimedia content of the events. One video editor was publishing video reports hand-delivered by reporters coming from clashes in Tahrir Square; four others

were editing stories conveyed by landline phones from the main newsroom on *Mubtadayan* Street downtown, since all other telecommunications were cut.

Later on Friday, *Aljazeera*, CNN, and France 24 were broadcasting a clip showing the clashes between protestors and the police on the Kasr El-Nile bridge, using video taken hours earlier on Nora's personal digital camera from the balcony.

As Egypt became a global news story during the 18 days of the uprising from 25 January to 11 February 2011, when President Mubarak stepped down, *Almasry Alyoum* Media Corporation (AMAY)⁵⁴ witnessed a number of dramatic developments, such as just recounted. The Egyptian uprising became a turning point at many levels for the AMAY news portal, as those 18 days led to changes in the way news content was processed, and also shaped innovation decisions and their implementation within the newsroom.

This chapter will examine the case of AMAY and the particular factors that shaped innovation within its Arabic online newsroom, looking in detail at the structural and organisational changes occurring since the 2011 uprisings and up until June 2013.

Two general themes emerged from this case study. The first was the significance of shifts in the political environment as a change actor behind innovation. The political crisis had a dramatic impact on the news market and, in turn, the political economy of the Egyptian media. In that light, the chapter will analyse how competition within an increasingly politicised and congested media industry fostered rather than blocked innovation. In addition, an embedded case study highlights how the 18-day crisis prompted spontaneous and creative ways to overcome technological challenges. One aspect of this theme is the degree to which a new media-logic, motivated by the political stance of the organisation as much as by its business aspirations, drove innovation decisions.

⁵⁴ *Almasry Alyoum* Media Organisation will be referred to henceforth in the chapter as 'AMAY'.

The second theme revolves around AMAY's focus on modelling successful competitors, particularly British and American news organisations. It will explore AMAY's partnership with *The Guardian* and how it dramatically shifted senior management's vision from merely having a daily print publication into a media organisation producing 'content.' The chapter also examines how these conceptions and those of key change agents, especially the younger generation among the staff, drove implementation of a 'modern portal.'

5.1.1 The Case Study Approach

The detailed approach to the case study is described in Chapter 3, but in brief, the main research of this case study took part from August 2010 to June 2013, in which 38 formal in-depth interviews were conducted with the editorial, technical, and senior management staff, in addition to tens of informal discussions and personal communications. Participant observation was also enabled by three field visits that took place in September 2010, early January 2011, and early March 2011. Each visit lasted two weeks, in which the researcher was based inside the newsroom, observing operations and attending editorial meetings. Interviews conducted after March 2011 were carried over the Internet using Skype video conferencing..

5.1.2 Outline of the Chapter

The chapter follows the basic structure of all cases conducted for this thesis, focusing on the key variables outlined in the methodology chapter, while uncovering the factors particular to *Almasry Alyoum*. It begins with an outline of the historical and contemporary contexts influencing the media environment in Egypt, including the political system controlling media in the country. This is followed by a survey of the Egyptian mediascape with particular attention to media developments in the aftermath of Mubarak's regime,

particularly with respect to the online news environment. The chapter will then dive into the case of *Almasry Alyoum*, its business model, its newsroom composition and key design developments. The next section provides a more in-depth analysis of the routines, practices, and key actors shaping innovation processes. The chapter will then turn to the 18-day revolution in Egypt, beginning 25 January 2011, as an embedded case study, which illuminates the political and organisational tension brought about by the event and how they shaped innovation in the *Almasry Alyoum* online newsroom. In conclusion, the chapter describes the newsroom's evolving conceptions of ideal design and the influence *The Guardian* has had on shaping decisions about innovation within the news website.

5.2 Egypt's Historical and Political Contexts: Setting the Scene for News Innovation

The modern history of Egypt is a useful backdrop for how the press and its liberty were shaped. Colonial forces left their marks on Egypt's cultural and legal systems long after they had departed. In a way, the tradition of government control and manipulation of the press had been engraved in the Egyptian press since its inception.

Some historians consider Egypt the first Arab country to introduce the concept of the press as we know it today (Abdel-Megid, 1999; Ayalon, 1995; Ramadan, 1935). This history, which extends back to the late 18th century, has influenced the legal and political parameters that defined the current media system in the country. Egypt's political and cultural history is, although briefly sketched here, useful to an understanding of the nation's current media ecology.

5.2.1 Cultural and Historical Influences on the Press

Egyptian journalism was moulded in its infancy by intense political struggles. The very birth of the press came as a result of the French invasion in 1798, the year that French

officers and expatriates brought the printing press (one in Arabic letters and another in Latin) and other tools for printing propaganda to ensure communication in the country. Despite the thriving development of the press over the following sixty years, there had been a history of repeated attempts by ruling governments to curtail the independence of the press to ensure that it served dominant political interests. The first followed the French invasion, which led to the framing of most criminal law on French legal traditions (Ramadan, 1935), including laws governing the press. The second, followed the Ottoman ruler Muhammad `Ali Pasha, who ruled Egypt for over four decades (1805-1848) and was often regarded as the ‘founder of modern Egypt’ (Dodwell, 1931; Yates, 1843). The Pasha issued the first Egyptian and Arabic newspaper *Al Waqai’ Al Misriyya* (the Egyptian Events) on 20 November 1828, which became the official government paper continuing to day. The third was Muhammad Ali’s grandson Ismai’l Pasha (1863-1897) who also influenced modern Egypt and its press by extending the railway system, installing a telegraph network, and introducing modern state postal services – all measures that indirectly affected the distribution of news. He also reopened the Royal press in Bulaq (*Beau Lac*), which had been closed by his predecessor Sa’id, and revitalized the *Alwaqa’i al Misriyya* paper. By 1866, Reuter’s International News Agency and Havas News Agency had opened offices in Alexandria, allowing dissemination of local and foreign news. Under the new Khedive, Egypt would become the leading centre of the Arab press (Ayalon, 1995: 19).

Some scholars argue that Ismai’l was the only 19th century ruler in the Middle East who appreciated and used the power of the press (Ayalon: 41). Once he ascended to the throne in 1863, he purchased shares in the leading Paris paper – *Le Temps* – which had been a sharp critic of Egyptian policies, but which soon became pro-Egyptian. During his rule, foreign journals and news agencies enjoyed generous Egyptian government subsidies.

The 80-year British occupation of Egypt, which began in 1882, was a fourth example, exerting a strong influence on the country's political and media culture. Although widely criticised for doing little to improve the economic or social conditions of Egyptians, the British indirectly helped the revival of dissident media as nationalism developed in the country. Lord Cromer, architect of the British policy at the time (1883-1907), believed in the value of the press as a 'safety valve' for local grievances (ibid). Under British colonialism, Egypt's Arabic periodical press flourished and brought Egyptian nationalism into greater focus (Ayalon, 1995; Ramadan, 1935). Despite Britain's efforts to suppress anti-colonial voices in the country, several political groups used flyers and underground papers to disseminate their political views and mobilize dissent. Ironically, Cromer's belief was reflected a hundred years later by President Mubarak, who allowed a larger margin of media freedom than his predecessors did.

Eighty years of colonisation had made English the second major language in all public and most private schools. Although the French brought the press to Egypt, it was links with Anglo-Saxon media, thanks to the English language, that largely shaped the Egyptian contemporary journalism, as illustrated by the *Almasry Alyoum* case.

5.2.2 Later Influences

Egypt's contemporary media history has undergone similar periods of political influence. During President Nasser's regime, in the 1950s and 1960s, an autocratic state exerted a strong grip on the media, such as by nationalizing the press. The once vibrant and pluralistic media that prevailed before the 1952 revolution fell under strict government supervision and ownership. Nasser's policies sought to control mass media in order to mobilise people behind the government's ideologies (Boyd, 1977, 1999).

Sadat, who followed Nasser, allowed the creation of political parties and relaxed some of the harsher restrictions on media imposed by Nasser. However, under Sadat, the media system shifted several times, both toward and away from diversity and freedom of expression, arguably because Sadat was torn between a wish to increase democracy and a desire not to give voice to his political opponents (Rugh, 2004: 152).

However, during President Mubarak's regime, a significant margin of media freedom was introduced, compared to that granted by his predecessors, which was in line with larger political and economic liberalisation policies. Mubarak opened the door to private ownership of newspapers, radio, and TV channels, relaxing censorship on content (so long as it did not touch on the President or his family), and pursuing an aggressive e-government strategy. During his regime, the first satellite in the Arab World – Nile Sat – was launched, enhancing access to broadcasting channels. The inauguration of the Media Production City in 1997 as the first media zone in the region, together with the Smart Village in 2000, were among the key media developments during his rule. Despite continuing arrests, harassment, and detention of journalists, Mubarak's policies toward media freedom compared to his predecessors underwent a slow but gradual process of liberalisation.

5.2.3 Regulations and Press Freedom

The law and policies shaping the press in Egypt have been moulded by the history of the press and politics reviewed above. The first press law dates back to 26 November 1881 – nearly 90 years after the French introduced the first printed paper, replacing the Ottoman law of 1865 (*Bulletin de Législation et de Jurisprudence Egyptien*, 1934). The law, decreed under Khediv Tawfiq, empowered the Ministry of Interior to license, suspend, or abolish any print journal in the interest of 'public order, or religion or morality' (ibid: 5);

and prescribed heavy penalties for offenders (Ramadan, 1935: 23-27, 50-62). This was seen as an appropriate measure to counter an influx of missionary and other foreign publications, as well as domestic private Arabic newspapers that critiqued the government at the time (Ayalon, 1995: 23).

Since the 20th century, several major laws have been introduced to govern the press in Egypt and impose similar control over the media generally. Law 68 of 1931 required notifying public authorities before establishing a print paper; while law 156 of 1960 dramatically restricted private ownership of print papers, and converted the ownership of the major private newspapers to the state. The last of these laws was law 96 of 1996, which has become central to regulating the Egyptian press. Despite being considered a step forward, law 96 established the right to fine or imprison journalists for libel or for attacking ‘public figures’ (Law 96, article 22, 28), leading media institutions to impose self-censorship on their journalists. The law also restricts individual private ownership of newspapers (articles 42 and 45). Finally, the Egyptian Penal Code – which contains 39 articles on ‘crimes of the press’ – hands the responsibility for media censorship to the government.

Later, the emergency law enacted since Mubarak’s regime allowed police to arrest journalists and shut down any media deemed a ‘threat’ to the ‘public’ or to ‘national security.’ After the 2011 revolution, the constitution of 2012 was passed by referendum, amid much controversy, incorporating articles enabling the imprisonment of journalists, while referring to the rights of the press in vague terms. However, by July 2013, the

constitution had been suspended for revision, leaving much uncertainty about press regulation.⁵⁵

Internationally, Egypt has ratified the Universal Declaration of Human Rights that guarantees freedom of expression in article 19 (UDHR, 1948). Moreover, both the 1981 and the 2012 constitutions guaranteed ‘freedom of expression.’ Nevertheless, as discussed, the actual laws governing the press often pose contradictions with the constitutional right of expression in restricting the ownership and practice of media.

Online news has faced similar issues. Although no particular legislation is directed at online content in Egypt, prosecution of bloggers, surveillance of Internet users, and blocking of selected websites since the late 1990s have relied on the aforementioned laws. In 2008, there were attempts to draft an audio-visual law to regulate satellite TV and Internet communications, but this law did not move forward (Amin, 2006).

Threats to free speech intensified after January 2011, beginning with the interim rule of the Supreme Council of the Armed Forces (SCAF) and until the period following the ousting of President Morsi. For two years, periodic crackdowns on critical voices spiralled, including the harassment, detention, and at times military prosecution of famous bloggers and TV presenters (Abdel-Sattar, 2011; Sakr, 2013). Moreover, a number of TV channels critical of SCAF were raided in 2011, including the *25 January* Channel and *Aljazeera Mubasheer* Egypt (Abdel-Sattar, 2011: 7-10). Similarly, and despite pledges of a new dawn of freedom of speech by President Morsi, reported cases of the detention and killing of journalists and bloggers indicated that political unrest in the country had exacerbated rather than reduced control of the media (CPJ January 2013). Shortly after

⁵⁵ Upon the 30 June 2013 mass protests which ousted Morsi, a ‘road map’ was approved by most political and religious parties and supported by the military called for a revision of the constitution, new parliamentary and presidential elections, and a development of a new media ethical framework.

the 30 June 2013 uprisings which ousted Morsi, the interim state shut down a number of Islamist channels (and *Aljazeera*) and arrested their presenters (Knell, 2013).

Consequently, Egypt's press freedom has deteriorated since 2011. In that year, Reporters sans Frontiers ranked Egypt 166th out of 178 countries, down from 127th in 2010 (RSF, 2011). Similarly, Freedom House lowered Egypt's press freedom to 'Not Free' in 2012, down from 'Partly Free' in 2011; while it ranked Egypt's net freedom as 'partly free' (Freedom House, 2012).

5.3 The Media Landscape in Egypt

Despite these restrictions, the Egyptian media remains the most thriving in the Arab region. With the largest population in the Arab World,⁵⁶ Egypt is the largest media consumer and producer in the region. The country has historically positioned itself as a vibrant hub for print and audio-visual content production in the region. For instance, it has the largest publishing sector in the Arab World and leads Arab film, television, and sound industries, in addition to having the region's oldest media zones and first Arab satellite TV: Nile Sat 1 and 2 (Bin-Fahad et al., 2012; ITU, 2001). The state's Egyptian Radio and Television Union (ERTU) – which is the sole organisation to broadcast terrestrially – also owns 17 terrestrial channels, in addition to having a minority financial stake in two private channels: *Almehwar* and *Dream* (ERTU website, 2012).

Private media ownership thrived during Mubarak's regime, albeit with imposed self-censorship. Prior to 2011, 55 private Egyptian TV channels were licenced to broadcast on the country's Nile Sat network (Bin-Fahad et al., 2010).

Likewise, Egypt's newspaper circulation remains strong, and the industry remains one of the few that continues to grow despite the advent of the Internet. The country's

⁵⁶ Over 83.6 million in 2013 (The Central Agency for Public Mobilization and Statistics, 2013)

circulation totals 43% of the overall circulation within the Arab region, with 7.5% growth between 2009 and 2011. Meanwhile, the advertising market remains heavily dependent on print media, with newspapers accounting for 45% of total advertising expenditure in 2011 (Bin-Fahad et al., 2012: 138).

5.3.1 Internet and Online News in Egypt

Although people began using the Internet in Egypt in October 1993, it was not until five years later that deregulation and the opening of competition in the Internet market was endorsed (Kelly, 2001). With the advent of economic liberalisation in the country, Telecom Egypt (TE) was created as a joint-stock company, inheriting the state-owned Arab Republic of Egypt Telecommunication Organisation (ARENTO), together with the Telecommunication Regulatory Authority (TRA) as an independent regulator (ITU, 2001, p. 5). This was through the 1998 law that made the Telecom Company 100%, owned by the government (Telecom Law 19/1998).

Following these initiatives, the state has pursued a plan to create an ‘Information Society.’ It established a dedicated ICT ministry in 1999 followed by a comprehensive digitisation project that included investing in infrastructure, expanding ISP competition, building IT capacity, and placing key governmental services online (MICT, 2013). Moreover, the government provided the first free dial-up Internet service. The National Telecom Regulatory Authority (NTRA) was also placed in charge of regulating Internet and telecommunications service providers through a decreed Law 10 in 2003. Moreover, by May 2010, Egypt was the first Arab country to introduce an Arabic domain name – مصر – on the Internet (ITU, 2012, p. 140).

The results of the government’s efforts bore fruit; and like the rest of the Arab region, Egypt’s online consumption has grown dramatically over the past decade. Internet

penetration grew at an average annual rate of 64% during the period 2000-2010, as the number of Egyptians Internet users rose from less than 1 million to over 23 million in a decade (MCIT Egypt, 2011). Moreover, Egypt's Internet bandwidth expanded steadily over the decade with an average annual growth rate of 105% (ibid).

Demand on the Internet has jumped another 20% since the uprising in 2011, with over 31 million users online, translating to an Internet penetration of 37.8% in November 2012 (MCIT Egypt, 2012). Mobile penetration⁵⁷ has also increased, reaching over 115%, with the proportion of mobile Internet users hitting over 33% of the total Internet users by November 2012 (ibid). In Egypt, while fixed broadband penetration has remained low, at 2.2% of the population, mobile broadband has accounted for nearly 80% of broadband subscriptions (Bin-Fahad et al., 2012: 143).

Despite government efforts, the economic context of Egypt made the implementation of online projects challenging. E-commerce remained slow, and banks have been reluctant to finance online projects. The managing director of AMAY explains the challenges for sustainability:

I could easily get [a loan] to finance the printhouse; but not to finance the website. One was 40 million pounds, and the website was only two million pounds. So your capital is one major challenge. We need to be sustainable and we have limited resources in Egypt. Plus, if you overcome the hurdle of the capital expenditures at the beginning, you need to be sustainable to continue. (Personal interview, 23 September 2010)

In terms of online behaviour, Egyptians spend nearly three hours per day online, close to the amount of time spent watching TV (3.5 hours per day), with Internet usage particularly high among the younger generations. Recent research found that young users

⁵⁷The Internet penetration according to the ITU indicators have been revised in January 2011 to include any subscribers who used the service at least once during the last three months, which increased the rate for Egypt. The number of mobile subscribers in July 2012 was 92.64 million.

between 15 and 25 would rather give up watching TV than connecting to the Internet (Bin-Fahad et al., 2012: 143).

As in other countries, the print industry in Egypt has begun to migrate toward publishing on the Internet. An Arab Media Outlook study found that 25% of people surveyed used the Internet to access news (2012). Facebook (both Arabic and English) was reported as the most visited site in Egypt with over 22% of the population using it in 2012 compared to just 9% in 2009. In contrast, the use of Twitter for news consumption remains far smaller, with only 4% using the Twitter platform, in spite of its much publicised role during the Egyptian uprising (Bin-Fahad et al., 2012). Online news consumption is expected to rise, particularly since over 60% of Egypt's population is below age 30 and the country's literacy rate is 71%, creating the potential for much wider diffusion of the Internet.

A 2011 study ranked *Almasry Alyoum* as the top news website in Egypt, closely followed by El Youm El 7 (Bin-Fahad et al., 2012, p. 139). However, youm7.com has been ranked as the top read news websites in Egypt (Alexa, June 2013). Meanwhile, Facebook is the top visited website in Egypt (Alexa, June 2013). Nearly one third of the traffic that comes to Egyptian news sites is reportedly from Facebook referrals, followed by search engines, a fact that highlights the growing impact of social media tools in news consumption in Egypt (Personal interviews, 2011-2012). Moreover, news forums and news aggregators, such as masrawy.com, are ranked among the top 10 visited sites in Egypt (ibid).

5.3.2 The Post 25 January Media Ecosystem: A New Political Economy

Following the uprising of 25 January 2011, media consumption shifted from entertainment to political media. As clashes filled the streets, political news consumption rose, with the time spent watching news on TV more than doubling (Bin-Fahad et al.,

2012). Political instability created a charged appetite for political news and analysis, and as the masses engaged in political deliberation, politics was no longer limited to the elite intelligentsia.

The post 25-January political context influenced the political economy of the media in Egypt in several ways. First, the media industry not only survived the economic recession following the fall of the Mubarak and Morsi regimes, but also thrived. For instance, 21 new satellite channels and 12 print papers were launched in the first six months after the toppling of Mubarak, as the interim government relaxed licensing scrutiny amid the political crisis (Abdel-Sattar, 2011; Bin-Fahad et al., 2012: 141, 233). Moreover, while print circulation was dropping worldwide, Egypt's print industry boomed. Even top online-only news media such as *Alyoum7* introduced a new weekly print edition (Arab Media Outlook, 2012: 141).

Secondly, the media ecosystem was increasingly filled with more ideologically polarised media owners. New partisan papers, such as the Muslim Brothers' 'Freedom and Equality' party paper emerged in 2011. Religious and old-regime media oligopolies also dramatically increased. For instance, hard-line religious satellite channels – such as the Coptic *Alfady* Channel; or the Islamist *Alhafiz*, *Alnas* and *Egypt25* – all launched in 2011. A new dedicated *Aljazeera Mubasheer Misr* (e.g., Live Egypt) also launched in the same year. Meanwhile, business tycoons associated with the old Mubarak regime expanded their media ownership. For instance, Mohamed El Amin launched the *CBC* satellite channel, followed a year later by *Alwatan* daily print. Similarly, Ahmed Bahgat – the owner of Egypt's top-watched *Dream* channels – expanded his business to print in 2012. Both businessmen were multi-millionaires. Also, religious channels received funding from benefactors in the Gulf and North America, supporting their respective ideology (developments criticised by activists and professionals alike).

Consequently, this new media-ownership was strongly tied to the political contestations among the different ideologies. Old and new media players were fighting to shape the new political scene in Egypt. Polarisation between the young revolutionists, the anti-revolution remnants of Mubarak regime, and the radical religious clerics in 2011 soon became a ‘media-war’ between those supporting the Muslim Brothers and those opposing them. In this context, media players often crossed the boundaries of journalistic professionalism to become propaganda tools against their adversaries, despite several cries to reform the Egyptian media.

Thirdly, this newly-charged mediascape created a new media logic for online news. News producers strived to compete for users’ attention as Internet consumption climbed. Moreover, mainstream media increasingly depended on participatory cross-media networks for news gathering (Naomi Sakr, 2013). Because of this deeply politicised setting, commercial profit was not the only aspiration of some media. When asked about the reason behind many media entities investing in new online projects since 2011, one online media consultant explained a startling reality:

Investment in online media projects after the uprising was purely ideological and not just for money. These [online media] projects do not bring money for three or four years. They [e.g., the owners] come to express an ideological political view. They were willing to invest millions in their online project ideas...They have a bigger goal and a particular [political] message that they want to convey to the public, and they have those who fund their ideologies. (Personal interview, 7 January 2012)

As this source illustrates, innovation online was not always driven by commercial incentive, but also often by a political one. Even though the scale and reach of these online projects was not fully assessed, close observation of online news since 2011 supports the presence of strong contests between Islamists and counter-revolutionary narratives.

Understanding this new political context of the Egyptian mediascape is important to situate the following discussion about online innovation.

5.4 *Almasry Alyoum Media Corporation*

Bought by seven of the top businessmen in Egypt in 2002, from a licenced monthly print (then named *Almasry*), *Almasry Alyoum Media Corporation*⁵⁸ مؤسسة المصري اليوم became the top independent Arabic daily print in Egypt. Ten years since its inception, and in spite of a shaky start that nearly led to its bankruptcy, the daily newspaper has transformed its content and readership to reach a circulation of a quarter of a million. By 2012, the news organisation had also expanded its operations to an additional English weekly print edition (*Egypt Independent*), a Print House, city editions, and an Arabic weekly political magazine called *Al Siyassy* (e.g., *The Political*). It also experimented with printing books.

With its print expansion, the institution's online presence grew steadily. One year after the inception of its daily, AMAY launched its Arabic portal (Almasry-alyoum.com), followed by an English portal (egyptindependent.com) in March 2009.

This case focuses on the Arabic portal and its services as a way to keep the Arabic language a common denominator across all three cases. Moreover, limiting the scope of the case on the Arabic portal was a strategic choice of focus, given the time and resource limitations of this study.

5.4.1 Size and Business Model

Compared to the other two cases, *Almasry Alyoum* can be classified as a medium-sized news organisation. The newsroom is much larger than *Almassae* and far smaller than *Aljazeera*. Despite its exponential growth since its inception in 2003, it employed around

⁵⁸ Hereafter referred to as AMAY

700 staff members (200 of which were freelancers) in 2013. This is relatively small compared to institutions such as the state-owned *Alahram* that boasts over 20,000 staff members (including over 1,120 editors dedicated only to its Arabic daily), and which is considered the largest Arabic daily newspaper in the world (*Alahram* Portal, last accessed 10 December 2012).⁵⁹ Circulation of the two papers also varied considerably on a typical Friday⁶⁰ in 2010. Although both papers sold nearly 300,000 copies during weekdays,

Table 8 AMAY's Newspaper Daily Circulation by Year since Inception

Year	Print Circulation*
2003	3000
2004	20,000
2005	40,000
2006	80,000
2007	120,000
2008	150,000
2010	240,000
2011 **	600,000
2013	200,000

* Record based on average daily circulation

** Circulation during 25 January 2011 uprising

Alahram reached over 900,000 of copies sold on a typical Friday. Nevertheless, market figures show that *Almasry Alyoum* daily remains the top read newspaper in Egypt, seizing a good 47% of the total share of read newspapers in Egypt in 2011 (Bin-Fahad et al., 2012; AMAY Marketing data, 2012). This makes AMAY a medium-sized production, but top-sized print distribution medium by Egyptian standards. The print and online news circulations witnessed exponential growth during their relatively short lives. As illustrated⁶¹, the annual growth of the Arabic daily print circulation and its online traffic was steady. During the 25 January revolution of 2011, newspaper circulation doubled.

As for its online presence, the *Almasry Alyoum* Arabic portal is also medium sized compared to the more aggressive news sites such as *Alyoum7.com*. Alexa ranked the AMAY site the 22nd among the top visited Egyptian sites (Alexa, last accessed 30

⁵⁹ Founded in 1975, *Alahram* (e.g. The Pyramids) is one of the oldest and largest newspapers in the Arab World. It publishes several weeklies and dailies in three languages worldwide.

⁶⁰ Friday is the end of weekday, and Egyptians have historically been accustomed to reading *Alahram* special Friday edition with its many supplements, as part of the popular culture.

⁶¹ Source: print circulation data provided by *Almasry Alyoum*.

December 2012). As Figure 17 illustrates, the portal lagged behind the state-owned *Alahram* and closely matched the new rival *Alwatan* – a newspaper which had started in 2012.

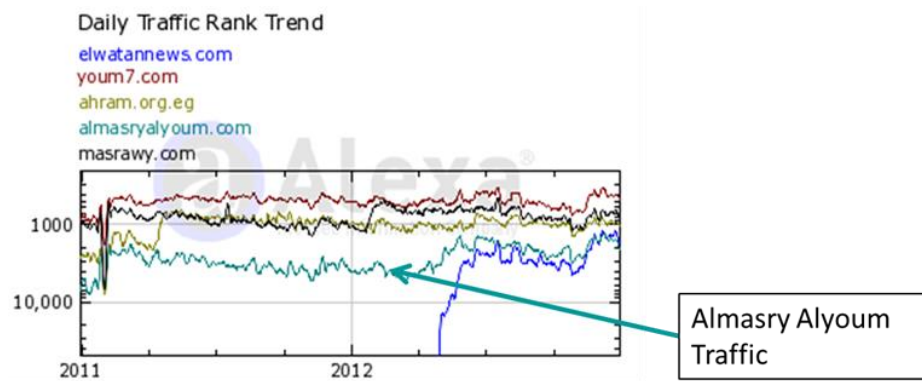


Figure 17: Almasry Alyoum daily traffic rank compared to top news sites in Egypt.⁶²

Nevertheless, the Arabic portal traffic continuously rose, reaching a staggering 10 million visits during June 2013 – a fifteen-fold increase since 2010 (Google Analytics, 14 July 2013). AMAY also reached over 1.1 million fans on its main Facebook page, and was followed by 1,055,349 on its main Twitter account by December 2012, on top of its six subsidiary accounts.⁶³

Being an independent news organisation, AMAY primarily relies on its print sales and advertising. To ensure impartiality, the editor-in-chief at the time – Magdy El Gallad – hired a separate agency to handle all print advertising in 2008. The portal's online advertising remained limited, but has grown slowly since 2011.

5.4.1.1 Size and Technological Affordances

The limited size of AMAY was a factor shaping its technological and time affordances, and influencing its innovation choices. As a private start-up, resources to support new

⁶² Source: Alexa.com

⁶³ In addition to its main @AlmasryAlyoum, AMAY has six additional Twitter accounts related to its different publications and services: @AlMasrySports, @AlMasryLive, @AssyasyMag, @AlMasry_TV, @AlMasryLiveBlog, @EgyIndependent

ideas about the website's development were limited. This was particularly true given that profit from the online services was still minimal. As a result, the technical team's time and the cost of any technological artifact had to be carefully considered. As the portal Manager said: 'Someone can come up with an idea that has very complicated requirements and [that] we cannot do now; or we could have other priorities.' (Personal interview, 17 September 2010). Moreover, a limited budget meant more reliance on open-sourced software or freely available technology, rather than commissioned products – something which according to staff had its technical benefits and disadvantages.

Nevertheless, scarcity sometimes inspired innovation. A case in point was the organisation's decision to take up mobile video production. One senior manager explains how choosing cheap handheld video cameras as a practical start led to revolutionary results:

When I went to Radioshack, they were selling a small mobile camera called 'Vado' for only 600LE [e.g., approx. 60 GBP]. It was excellent! So those 12 staff [we] trained, took those cameras and started to work on their own [video] projects. We were extremely surprised by the outcome. The people were so excited to do something new; and they got into it... one of them made a video on the 'Pigs Culling Story' which got 300,000 visitors in one week. (Personal interview, 16 September 2010)

As AMAY could not afford full-scale professional video gear, the team went for small off-the-shelf artifacts. They were creative and pragmatic. Going for a cheaper option motivated reporters to immediately produce video news stories without the need of sophisticated technical knowledge. The handheld cameras were also light and versatile, enabling the reporters to roam freely and bring more locally interesting video stories. One of these video reports – on water in Egypt – earned an international award for bringing a very local perspective to the water problem. The training and management style were strong factors in motivating staff, but resource limitations were a strong determinant of such innovations.

The relatively small size of the news organisation also meant less centralization and more ownership of projects. For instance, no more than ten staff members attended meetings for portal development, making the decision process much easier. Kismet El-Sayyed, the portal's project manager, explains:

Almasry Alyoum is a young and small organisation, so the barriers of change are small, and there is a larger ownership among the technical and the multimedia teams. For example, the multimedia manager has ownership of the multimedia team so her ideas for products she would like to do are very easy to implement. (Personal interview, 16 September 2010)

As such, size has brought both challenges and opportunities for AMAY multimedia innovation adoption.

5.4.1.2 Visions Driving Innovation

The management's vision – that the Internet will dramatically reduce the cost of production and distribution over time – was behind investment in the portal. When asked about the rationale behind moving online, a senior management member explains their business logic:

The cost of print publication is quite prohibitive now. We also wanted to reach as many readers as possible. So the economic limitation and also the space limitation on the print were major drivers. As we could not go beyond 16 pages for technical reasons, every day we saw four [or] five pages thrown away and becoming obsolete. We said, 'O.K. fine, let's put this on the web...' It was also a paradigm shift in our minds: that the future is in the Internet. Although we knew that the first 4-5 years of the website were [going to be] very severe and not economically appealing, we thought that we have to start investing [online]. So we always had to allocate costs from the print to the website in order to make it look a little bit better. Right now, the website is not profitable at all, although it is extremely well visited. At the same time, I could not leave this segment of online readers. (Personal interview, S.A, 23 September 2010)

Perhaps this was one of the main reasons the senior management supported the business expansion online. In 2009, they invested nearly two million pounds in revamping the portal. Six years following AMAY's inception, the shareholders had still not received one dollar in dividends, due to the board's decision to reinvest the profit in expansion.

However, the business motivation was not the only driver for innovation. Most of the board members – who were prominent businessmen in Egypt keen on profit – shared an additional political interest in funding AMAY, particularly at the beginning. Interviews with senior management reflected how several shareholders detested the deteriorating state of journalism in Egypt. The newspaper – and its portal expansion – was seen as a fresh step towards independent journalism in the ‘true sense’, one which stands out from opposition papers that were seen as hypocritical. However, as the organisation grew, pressures for profit grew. ‘We are focused on expansion more than anything else. Now they are expecting some returns,’ laughed the Vice Chairman (Personal interview, 23 September 2010). After the revolution, commercial pressures were increasingly driving innovation.

5.4.2 The Newsroom’s Structure and Composition

There is a generally youthful, defiant and active vibe inside the *Almasry Alyoum* newsroom. Since its inception, the newspaper was keen to hire new graduates and triple their salaries above the market rate. The decision was driven by the stakeholders’ political motivation⁶⁴ to change journalism quality in Egypt and a clear business vision of the market need for ‘good independent’ newspapers. This was a way to attract highly qualified journalists, and introduce a new journalism culture of ‘independence’ and pride among the staff, at a time when nepotism and state media was seen as corrupting to journalists.

The size of the organisation’s full-time staff has expanded rapidly from 100 in 2010 to 700 in 2013. The newsroom had offices in eight governorates with dedicated reporters to cover the local news and report to the Cairo Headquarters. The online team size also

⁶⁴ The Chairman was also the grandson of the founder of the first opposition party in Egypt *Al’Wafd* and was keen on bringing independent journalism.

doubled from 2004 to 2010 reaching 20 members, reaching a staggering 95 members (73 of whom are full-timers) by late 2012 as Figure 18 illustrates.

As the news organisation's convergence initiatives advanced, the newsroom changed in structure and geography. Prior to November 2010, the print and online newsrooms were located in separate buildings in downtown Cairo – one of which was spread over two floors. However, later, and to prepare for the 2010 parliamentary elections at the time, the multimedia team was relocated to the main print newsroom to increase coordination and efficiency of video-supported stories.

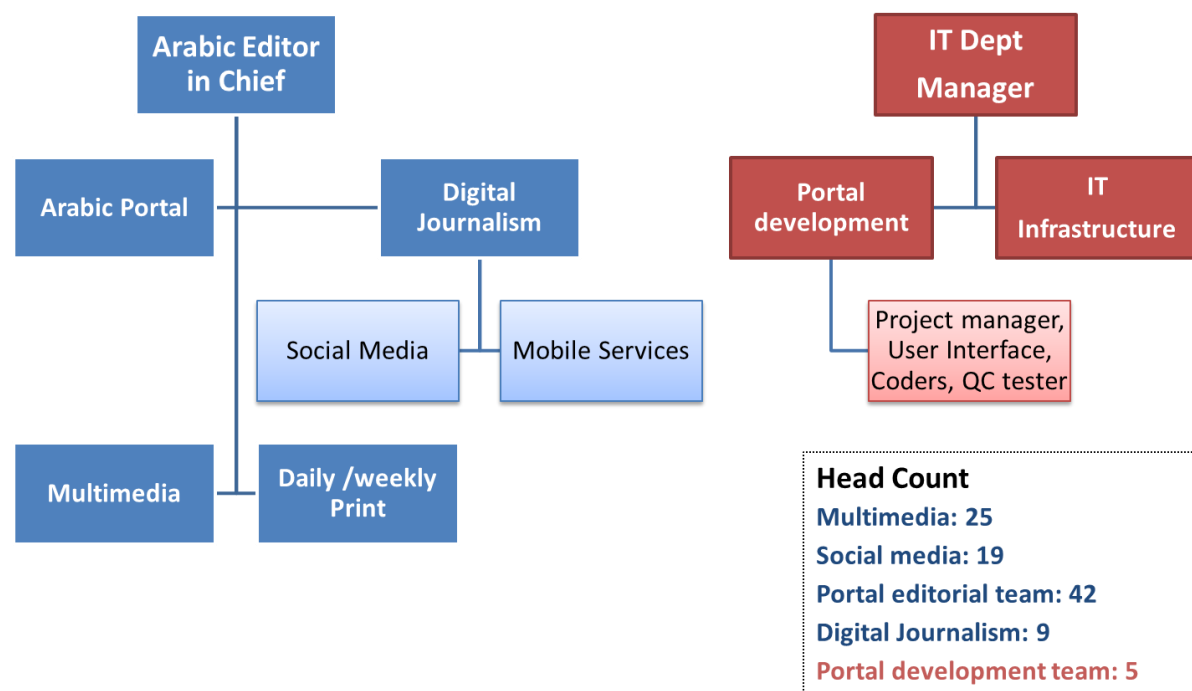


Figure 18: The Arabic Online services structure at AMAY as of December 2012

The structure of both newsrooms totally changed. In 2010, the online team was divided into three groups: ‘web,’ in charge of entering textual news to the portal; ‘multimedia,’ working on the video and other content complementing text; and ‘community,’ which handled social media, UGC, and interactivity. The online team was relatively separate

from the print reporters. Print content was merely uploaded by a dedicated ‘web desk’ (located in the print newsroom) from shared servers after slight fine tuning, and the ‘news coordinator’ linked the print news sections to the remaining online teams (located elsewhere).

However, by late 2012, the print and online teams were increasingly merged as discussed at length in 5.7.3.1. The management’s vision of a ‘media content organisation beyond print’ was gradually implemented. Reporters were trained to work for both the print and online content, following a news production cycle simultaneously serving multi-platforms as Figure 19 illustrates. A breaking news editor – based in the print newsroom – was also assigned to publish SMS and portal tickers. Moreover, the online newsroom structure was reshuffled into a dedicated ‘digital journalism’ unit in charge of mobile services and social media, a portal ‘editorial’ team, and a ‘multimedia’ unit. In addition a dedicated portal development unit within the IT department served the portal. Each of the units was headed by a manager.



Picture 4: The Multimedia team relocated to AMAY main print newsroom in 2011

To improve the potential of synergies between the online and print teams, management introduced a screen in the main HQ's newsroom showing the portal publishing as seen on the far right of Picture 5. Moreover, the portal manager, together with the key print editors, was located in a central 'hub' round table to follow and coordinate news across the different platforms.



Picture 5: AMAY code of ethics hung on every column of AMAY

5.5 Information Architecture: Site Typology and Design Evolvment

The design of the AMAY Arabic portal has dramatically changed since its inception in 2004. The first version of the www.almasry-alyoum.com site was designed by an outsourced company, and was essentially a 'shovel-copy' of the print edition. The second was released in early 2010 by *OpenCraft* – a private Egyptian IT company⁶⁵ that was later bought by *Almasry Alyoum* to provide in-house technical support in 2008. The 2010 design included a new domain, almasryalyoum.com, with a web 2.0 technology using the *Drupal* open-sourced content management system.

⁶⁵ <http://www.open-craft.com/>

Before developing its multimedia website, AMAY changed its legal status from a print newspaper to ‘a media corporation,’ permitting it to produce audio-visual material. Picture 8 illustrates part of the key multimedia features of the portal. Below is a more expanded typology of the key features, services, and content of the portal:

- **Multimedia⁶⁶ content:** Textual and multimedia content, including a breaking-news ‘live ticker,’ galleries for pictures, cartoons, and videos; a live TV page (mainly for video); and visual and animated graphics that link to in-depth pages or stories.
- **Interactive content:** Interactive maps and timelines, including maps (ushahidi.com style) using users’ reports on fraud during elections; voting polls.
- **Citizen journalism and UGC:** A registration zone enabling registered users to share pictures, comments, and cartoons; a forum *Sharek*⁶⁷ that is integrated with users’ blogging and social media content; and a live blog: liveblog.almasryalyoum.com.
- **Social media content:** Integrated comments from users’ social media accounts directly to news articles; embedded add-ons enabling sharing and ‘liking’ of content via different social media (Twitter, Facebook, G+); Facebook applications; and a personalised widget showing ‘your friends prefer’ news.
- **Other portal services:** PDF version⁶⁸ of the print paper; a Jobs service portal⁶⁹; external links to guides and yellow pages; a mobile light version; a dedicated site for the ‘Almasry Studies and Information Centre,’ including a Q&A page that allows users to ask questions (<http://ask.fm/almasrycenter>).

⁶⁶ For AMAY staff, the term ‘multimedia’ refers to videos, pictures and caricatures.

⁶⁷ <http://sharek.almasryalyoum.com/>

⁶⁸ This service was replaced with a page displaying ‘Today’s Issue’ <http://today.almasryalyoum.com/>

⁶⁹ This is a dedicated database created and run on *Almasry Alyoum* site <http://jobs.almasryalyoum.com/>

- **Other digital services:** AMAY expanded its digital services to include mobile textual or ‘voice’ SMS news alerts; an online newsletter subscription; and iPhone and iPad applications.⁷⁰ In 2011, the team also experimented with a few ‘live reporting chats’ with users on the AMAY FB pages.

Archival analysis of the portal⁷¹ found that the rate and scale of changes on the portal increased after 2008 when AMAY acquired *OpenCraft*. This shows that the new Web 2.0 infrastructure enabled on-going changes to the site, such as integrating social media and interactivity features and introducing user blogging and other UGC⁷² (The Internet Archive, last accessed September 2013). Having in-house designers and developers also increased the overall multimedia content. As the design evolved, the visual and animated content, particularly videos, grew noticeably at the expense of textual content.

During the period of study, there was a metamorphosis in the design involvement – that is, dramatic changes took a long time before being implemented on the portal. However, between the two total site makeovers, minor design changes took place. Despite several multimedia services being introduced (e.g., live blogs), the portal’s ‘new version,’ involving a major infrastructure and technological change, had not been seen since 2010.

In general, gradual design changes over time continued until a ‘threshold’ was reached, such as frequent crashes,⁷³ when major new infrastructure engineering, a hosting upgrade, or dramatic front-end designs were deemed necessary (interviews with Team). This

⁷⁰ AMAY Apple apps released in September 2010

⁷¹ The two portals of AMAY were analysed from 2003-2013 using the Internet Archive Wayback Machine:
http://web.archive.org/web/*/http://www.almasyalyoum.com
http://web.archive.org/web/*/http://www.almasyalyoum.com
<http://web.archive.org/web/20100515000000/http://www.almasyalyoum.com/blogs>

⁷² Users blogging and UGC were introduced in 2010

⁷³ For instance, in January 2011 when the site traffic doubled, frequent crashes obliged an upgrade of the portal’s hosting plan to a 20-fold higher capacity (Personal interview, 11 January 2011).

metamorphic design evolution is understandable given the large amount of resources needed for large revamps.⁷⁴

5.6 Routines and Practices

5.6.1 The Online News Cycle: Patterns and Processes

As the newsroom gradually developed, its news production shifted from a typical 8:00 a.m. to 2:00 p.m. print news cycle, to a 24-hour cycle of multi-platform news dissemination. The news content would be distributed incrementally and over several distribution media throughout the day.

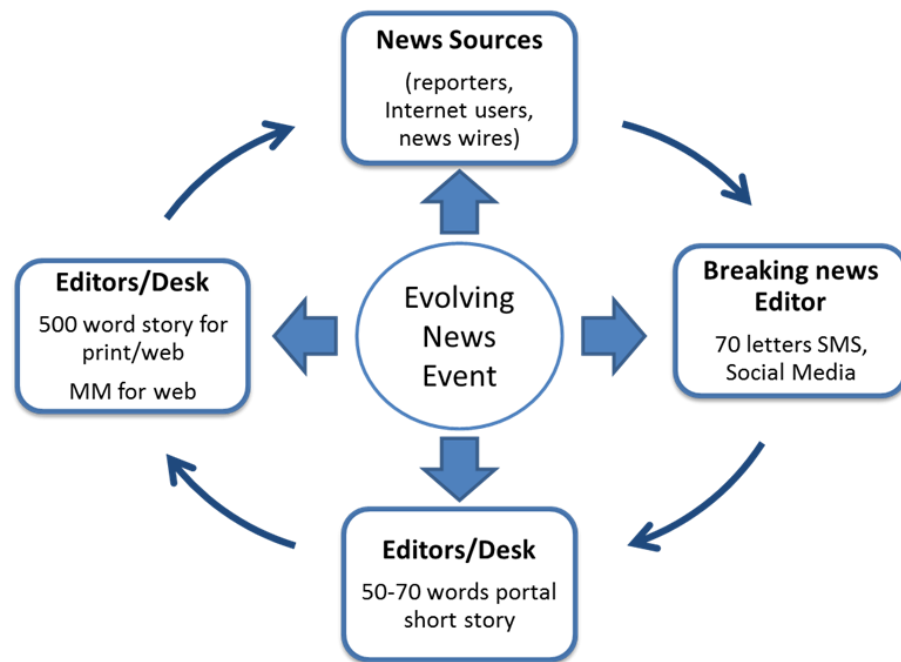


Figure 19: Distribution of one news item to different platforms

As Figure 19 illustrates, the multimedia news cycle begins with a reporter sending some breaking news about an event, usually by phone to the dedicated breaking news editor. The breaking news editor, in turn, immediately disseminates a 70-letter summary to the

⁷⁴ The embedded case study discusses the portal design evolution since the political uprising in January 2011 at more length.

portal's ticker and the phone news alert services. The social media crew distributes that same micro-content to the organisation's Facebook and Twitter pages. The news article is then written in no more than 70 words, accompanied by a headline and a picture. Once more factual details are received on the news event, a full story or analysis article is completed by the journalist and uploaded on the CMS for the 'desk' team to fine tune and publish onto the portal or the print. Since 2007, reporters have also been increasingly requested to provide video stories.

5.6.2 Key Innovation Strategies

After the visit to *The Guardian* and *Manchester Evening News* newsrooms (discussed at length in Section 5.8.2.1), AMAY focused on four key strategies for its online development: 'convergence' of its newsroom, development of its staff, distributing its content via multiple platforms, and redesigning its portal.

The first strategy was to converge the print and online newsroom production. During interviews, the senior management staff repeatedly referred to a 'paradigm shift' in their vision: one that transformed AMAY from a mere print to a 'content' organisation. The editor-in-chief at the time – Magdy El Gallad – called it 'a cross-media transient organisation' (Personal interview, 26 September 2010). This vision was driven by a strong sense that journalism was 'fleeing paper and that digital journalism was the future,' and of the significance of fast and multimedia news. To support this convergence, each journalist was given a laptop, a USB mode, and a Vado camera. Over 28 servers (some of which were hosted in the US, UK, and India) and two content management systems were gradually introduced to administer the workflow. As discussed earlier, structural and geographical adjustments were made to help link the print and online teams.

Nevertheless, convergence had to overcome several organisational hurdles. They included grappling with a news management system that enables a timely and effective flow of work between the reporters, the editing team, the ‘desk,’ and the multimedia teams. Convergence also meant changing the traditional conceptions and routines of print newsroom staff – from working for the print issue to multi-task and to produce content for all platforms.

All this proved challenging to implement. Despite the adoption of new technology, traditional routines and attitudes persisted, especially among older members of the staff, who were more wedded to their daily routines. The online community manager expressed what some newsroom print staff felt back in 2010:

Someone who has worked for 20 or 30 years of their lives in print, how can we present this idea in a way that makes them understand why it is important? Some of them imagine that [online] wastes their time, or they do not realize its importance’ (Personal interview, Community Manager, 14 September 2010).

Interviews revealed that disseminating news content in small incremental bits over the news content management system was especially difficult, as some print staff saw the online media as ‘stealing their content’ (Personal interview, 15 September 2010). Video production was also a challenge. The portal project manager explained the challenges faced at the time with video production:

We are trying to be fully converged. This means the reporter works on the content and does not work for a specific medium. Of course, this is challenging. O.K., people do get videos with the text, but it is not currently consistent...The other thing is that people are not used to the fast pace of the Internet – [e.g.] to write quick continuous updates or a small news item, then increase it by time. So to address these issues, we try to do training, but this will take time. Not all people have the tendency and acceptance to do videos. (Personal interview, 16 September 2010)

Similarly, some print ‘PR Journalists’ were not used to being all-in-one field photojournalists. ‘It is impossible for me to ask someone who does their work by

telephone and who knows his sources, to take video reports,’ said the portal managing editor (Personal interview, 15 September 2010). In short, the personal agency of staff played a role in the actual adoption of convergence within the newsroom, despite the strong will of management.

To overcome these challenges, a second strategy embarked on raising awareness and developing the technical skills of staff to adapt to convergence. In 2008, for example, a number of senior print editors were sent to *The Guardian* and *Manchester Evening News* to see how convergence was implemented within their newsrooms. Moreover, several training workshops on online and digital software were given to all staff, ranging from basic computer skills to video reporting and using the portal content management system. In 2013, the team has also undergone training on the new news management system. Observation and interviews showed that these multi-tasking challenges gradually decreased, not only due to awareness training, but also to staff incentivisation through bonuses. The fact that the majority of the newsroom staff was young also helped enable change.

The third strategy was expanding the distribution of content via multiple services and platforms. This included introducing the SMS news alert in 2010, followed by the voice news alert in 2013. In addition, dedicated OS device applications were developed, together with an e-newsletter. By late 2012, the organisation had dedicated a special department for digital services. Meanwhile, AMAY constantly upgraded its social media presence, while increasing the streamlining of social media content within its portal. As a result, nearly 54% of the AMAY portal’s traffic was referred⁷⁵ from outside sources⁷⁶ by June 2013, especially from social media sources as Figure 20 and Figure 21 illustrate

⁷⁵ Referral traffic is all traffic that comes to a portal not through direct access to its domain.

⁷⁶ Referral sources could include social networks, news aggregators and search engines.

(Google Analytics, last accessed 2 July 2013). See also Table 9 for the AMAY timeline of innovation.

Finally, the organisation invested in the front-end design of its portal to cater to multimedia content production and citizen journalism. The site architecture – and its back-end hosting and engineering – expanded to cope with the growing traffic, enable video, and integrate social media. Moreover, continuous small changes in the design were added on an almost weekly basis. Some of the more advanced features of the site were contracted out to third-party specialized companies.

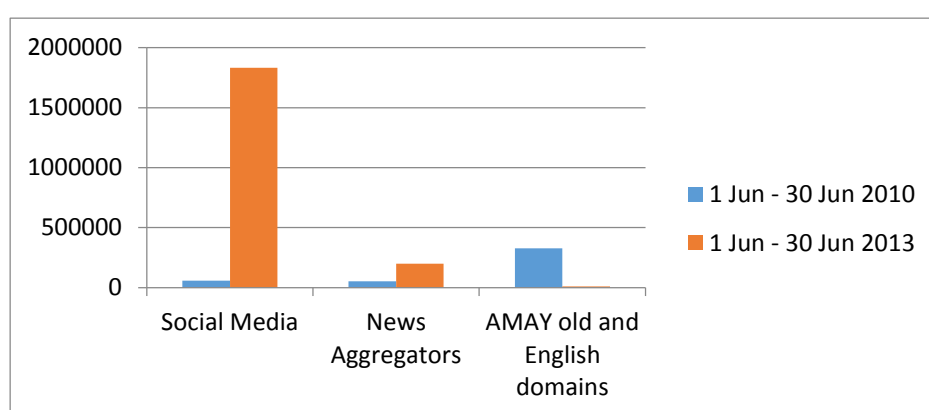


Figure 20: Referrals from Facebook and Twitter dramatically increased in three years⁷⁷.

AMAY Portal's Traffic 1 Jun – 1 Jul 2013

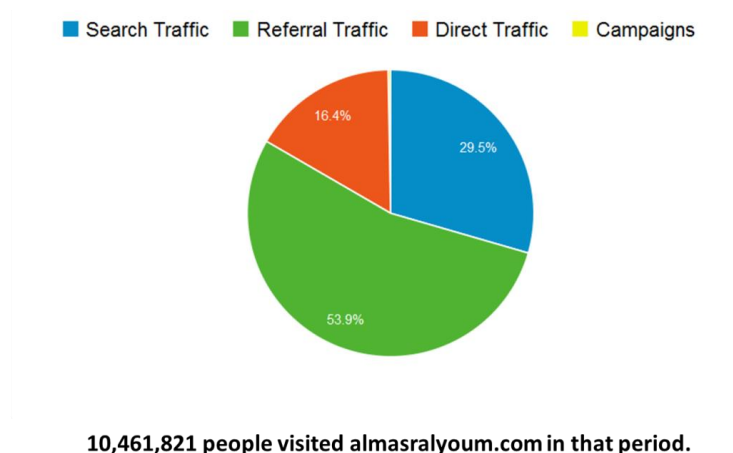


Figure 21: AMAY traffic in June 2013.⁷⁸

⁷⁷ Source: Google Analytics, July 2013

Table 9: AMAY Multimedia Innovation Timeline (Last update 1Aug 2013)

Almasry Alyoum Multimedia Innovation Timeline (As of Aug 2013)	
2004	1 st Arabic Portal almasry-alyoum.com officially launched.
2009	2 nd Arabic Portal almasryalyoum.com launched. English portal officially launched.
2010	Arabic Portal design revamp including dedicated video, pictures and caricature galleries and users registration service. A new SMS service launched. An interactive map enabling users' reporting of fraud during Egypt parliamentary elections launched in November.
2012	The two Arabic portal domains are integrated. Integrated Social Media commenting on articles introduced. A newsletter service started. The jobs.almasryalyoum.com website integrated with Bayt job database. The citizen's forum.almasryalyoum.com is in beta version. An interactive map reporting the constitution referendum fraud launched.
2013	Design revamp of the news carousel and key layout of the front page. A mobile 'voice' news alert service introduced. A number of interactive timelines and visual stories introduced such as 'The Revolution begins its 3 rd Year'. New Apple mobile/tablet applications released.

⁷⁸ Source: Google Analytics (Last accessed 14 August 2013)

5.6.3 The Iterative Innovation Cycle

A typical multimedia innovation process often starts with a periodic meeting to elicit staff ideas and feedback for the portal. There is also an internal tool for logging the team's suggested design 'tweaks' or problems they face with the design. However, dedicated design workshops preceded each of the major portal revamp endeavours, and served to place initial conceptualisation for the portal.

Two key aspects characterised the innovation process. First, innovation was found to be an iterative and pragmatic process. Adoption of technological artifacts was often an incremental progression based on trial and error, rather than following a clear pre-set idea. The portal project manager explains how the team tackled its second portal redesign in 2010:

We conducted a one-week workshop for design. We said we will look at say 20 other websites. So in that workshop, we shared our ideas and the designer would note them and show us design samples. [...] So this was our approach: we said we wanted to start something simple and basic. We were a bit practical in this; we did not want to spend too much time perfecting or coming up with something unprecedented. Especially for the web project, we said it is better to be online with something and then enhance it. It was extremely functional the way we thought about it. (Personal interview, Portal Project Manager, 4 January 2011)

The Agile method adopted by the web development team – a software management approach based on iterative and incremental steps – enabled the design to evolve in collaboration with the editorial team and through releasing several draft versions before the final release. The portal project manager described Agile as an 'improve as we go' method, where requirements are made simple and to be finished in a short time. According to the IT director, this approach seems the most successful in managing ideas in the pipeline. 'It is primarily based on feedback as we go, and on smaller deliverables that get shared and tested,' he said (Personal interview, O. B., 8 December 2012). 'When

the requirements take too long or are too many, the margin of error is bigger and the problems are bigger' (Personal interview, Portal Project Manager, 4 January 2011).

The team learned this pragmatic approach the hard way. In the early days, during the first portal design, mega-strategic plans and projects often failed. For instance, introducing a comprehensive news management system before 2010 ended with the team returning to the old manual system (Personal interview, I.Z, 20 September 2010). In 2012 however, when the new news management system (NMS) was introduced, it had key basic features linking all offices to one internal network, rather than having a fully-integrated NMS with the portal's dashboard. The IT director explained the rationale behind making the NMS less complicated than what they had tried two years before:

There was a huge implementation problem and the project got delayed for a year and-a-half. They tried to do a full complete integration [of the NMS] with the website, in a way that was far more difficult for this system to handle. So I do not want to repeat the same bad experience. (Personal interview, 7 January 2013)

Similarly, heavily investing in outsourcing an IT company to develop the first website proved unsuccessful, given the nascent media technological support at the time. Two years onward, the team chose to have an in-house team orchestrate the design, web development, and IT services. Since then, only rarely has external consultancy been sought. Only in mid-2013, when the news IT industry evolved in Egypt, had the team resorted back to a third party technical provider.

Underlying that design pragmatism was also a business 'intuition.' Despite administering some proactive measures to elicit feedback for the portal's development – such as the regular meetings – innovation was often found to be intuitive and ad-hoc rather than strategic. Novel technological ideas were rarely based on prior exhaustive market research of the online clientele, or on rigorous feasibility studies. A case in point was the idea of producing video for the Web. When asked about the rationale behind adopting

video journalism despite the organisation originally coming from print journalism, the portal project manager echoed a view shared by several senior management people at the time:

We saw that people had already started using their own mobiles in [shooting] demonstrations, and uploading a lot of videos on YouTube. We did not have a clear idea about how we would do it. We thought that any video would do. But actually after Nora [e.g., the multimedia manager] came, she changed a bit of our vision, and said, 'No, we need to make reports, not just put any video, we need to have a particular quality of journalism.' We did not imagine it was something difficult because we did not know the details involved; we thought it was easy. (Personal interview, K.E., 16 September 2010)

The Vice Chairman recalled, laughing, 'I think if we had analysed it, it would have been a little bit delayed. It was a gut feeling; we did not do many market studies on the web. (Personal interview, S.W., 23 September 2010).

Another example is adopting the SMS news alert service, which came about entirely unplanned. The Vice Chairman narrates:

One of the mobile operators approached us and said, 'You have to do SMS.' I did not give it much attention because I thought it was not going to bring profit. You cannot imagine how profitable it was! This was by far the most profitable [digital service] we had. I think we now have something like half a million [mobile phone] subscribers. I thought it would bring 20,000 pounds a month; it is actually bringing nearly half a million pounds a month. (Personal interview, S.W., 23 September 2010)

These words show that ideas are at times driven by an intuition and a risk-taking approach by senior management. Moreover, as section 5.8.2 tackles at length, this process is often strongly shaped by competitors and inspiring models.

The second key aspect characterising the innovation process was the 'uncertainty' that accompanied innovation decisions. There was no Egyptian 'reference' or prior model that AMAY could copy, since the newspaper was a pioneer in multimedia production at the time. Moreover, the technological infrastructure supporting the news industry in Egypt was still immature compared to worldwide standards. As one senior member reflected on

the early stages during 2004, consulting companies gave the ‘wrong technology’ since not many had worked on the news sector technologies at the time. Only *Masrawy* – which was a news aggregator – had some technological know-how (Personal interview, A.E., 16 September 2010). Even the local ISPs had far limited capacities to meet the technological expectations of AMAY. ‘Our demands and expectations were insane for them. The ISP did not consume altogether half of the bandwidth we were requesting, and they were the largest provider in Egypt,’ laughs the infrastructure and operation team leader, explaining why they resorted to an external service provider (Personal interview, 11 January 2011).

5.6.4 Innovation Agency and Key Actors

A number of key agents drove innovation at *Almasry Alyoum*. Senior management often made the final choices about investing in new technological artifacts or digital services, particularly the chairman and the managing director (vice chairman). Meanwhile, the second-level of management – that is, the print editor-in-chief, the portal project manager, and the portal managing editors – decide the editorial and design implementation aspects of multimedia. They also convey new ideas to senior management.

But there are other key catalysts and change agents who influenced the dynamics of innovation. They were the IT director and the junior multimedia staff. Their technological expertise and leadership skills enabled them to become opinion leaders, as their conceptions about media technological artifacts are highly trusted by decision makers. One board member describes one example of how this group impacts the portal’s innovation:

When you have a group like the web development and multimedia teams, they usually create their own dynamics after a while. And they lead you because they bring us ideas....For instance, the *Almasry Alyoum* new TV section was their own initiative. They came up with this idea and they contracted somebody in Canada to do it; and the budget was approved by me immediately (Personal interview, 23 September 2010).

Key change agents shared two key characteristics: age and progressiveness. *Almasry Alyoum* is observably a young organisation, especially its key innovation actors. The key change agents,' including some board members, were between 25 to 38 years old. 'Of course you can judge from the age of a couple of board members; they come from the Internet age, so they were very much pro [the portal's project]' (Personal interview, Vice Chairman, 23 September 2010). The young age and digital enthusiasm of Managing Director Sherif Abdel-Wadud (38) and Portal Project Manager Kismet El-Sayyed (33) at the time, were particularly behind the ambitious visions for the portal. 'Sherif was pushing that we have an excellent website; he had a huge vision for the website,' said the multimedia manager at the time (Personal interview, 5 January 2011). Meanwhile, Kismet progressively drove the implementation process.

These key actors are also technologically savvy and progressive. The majority of the online team were active bloggers and Twitterers before they joined AMAY. They shared a good bilingual education, and they constantly followed both Western and Arabic media. Interviews found that all opinion leaders were closely following technological developments, generally passionate about digital journalism, and willing to go beyond the call of duty to implement innovative ideas. 'Our vision is to really raise the market bar; our expectations are based on the view of what we can do,' said the Portal's Project Manager at the time (Personal interview, 23 September 2010).

The words of the IT director best describe the 'non-typical' progressive young multimedia journalists who initiated the idea of the *Almasry Alyoum* studio in 2012:

They are searching for their identity, to do something creative not merely becoming typical staff working in the morning and leaving in the afternoon. The nature and style of those working in the multimedia is a bit more creative. (Personal interview, O.B., 8 December 2012)

5.7 Case study: Coverage of the 25 January 2011 Revolution

The story of the 2011 revolution is an example of the ways in which political crisis can dramatically change online news content and shape innovation decisions and implementation. The 18 days of uprisings, which started 25 January 2011 and ended 11 February 2011 with Mubarak's stepping down, presented a number of challenges and opportunities to the newsroom, and propelled unusual organisational and technological management of its portal.

This sub-case study examines how the online team overcame the different challenges during the 18 days of uprising. It also highlights how the aftermath of the 2011 revolution shaped the organisation's business, structural, and consequently, innovation trajectories. The first section examines the events during the 18 days and how they shaped the newsroom's innovation processes. The second section highlights the long-term innovation dynamics that took place during the following two years.

5.7.1 During the 18 Days

The January 2011 uprisings were unplanned news events that propelled unprecedented mainstream and social media attention. International reporters and news agencies were increasingly eager to find footage and stories, particularly as the Egyptian state cracked down on its own reporters. Egyptians in Egypt and in diaspora were equally eager to follow the news. Bloggers and activists were also publishing minute-by-minute news, pictures, and video footage to the rest of the world, which were then picked up by international and pan-Arab media (Howard & Hussain, 2013; Naomi Sakr, 2013).

All this impelled a media logic inside AMAY to intensify its coverage of the news, especially since it had local reporters reaching all governorates where the uprisings erupted. The crisis also increased demand for AMAY news content. AMAY print

circulation soared during the uprisings, with over 600,000 copies sold daily (AMAY sales records, March 2011). As Figure 22 demonstrates, Internet traffic during that month equally spiralled.

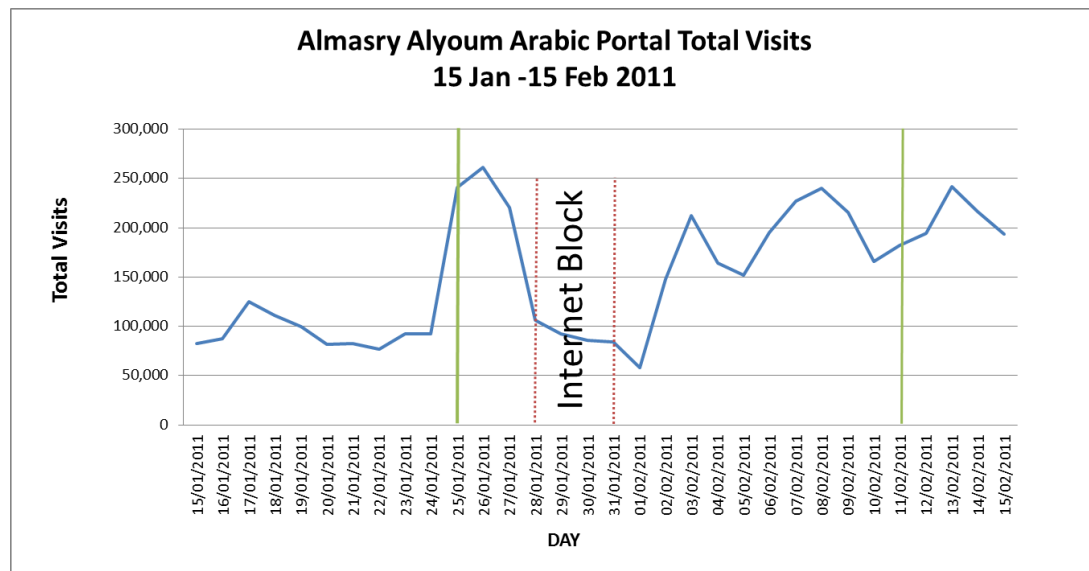


Figure 22: Total Visits on the Arabic portal during the 25 January uprising.⁷⁹

5.7.1.1 Defying the Internet Block: Going Primitive

The Internet block and the way the online newsroom dealt with it were unprecedented. On the eve of 28 January 2011 – the fourth day since the eruption of protests – the Egyptian state shut down the Internet in a desperate attempt to block communications among protestors. The three telecommunications networks were also blocked for two days. For four consecutive days, the Internet in Egypt continued in a blackout – the first of its kind in the history of the country. Yet, despite the Internet switch off, AMAY continued broadcasting its portal content; and the portal's traffic reached between 83,716 and 106,322 visits. No other Egyptian news organisation was able to publish its online content during that time.

⁷⁹ The undotted vertical lines mark the 18 days; the dotted lines mark the 4-day Internet cut. The portal still attracted traffic (from outside Egypt) during the block

Despite the absence of Egyptian users which constitute the bulk of the portal traffic, the intensity and newsworthiness of this political crisis news drove the decision to defy the block and publish online. The portal manager reflected that media logic:

We knew the entire world had its eyes on Egypt. There were things also happening in Bahrain and Libya, but people were mostly focusing their attention on Egypt. And we were right. Our videos were broadcasted on *Aljazeera*, CNN, and other news outlets, and the video of the bridge escalations got 100,000 hits in the first hour of publishing. So, somehow we knew it would indirectly reach our audience in Egypt (Personal interview, 18 March 2011).

Moreover, having seen how the government cracked down on media during those days, the newsroom was under constant fear of being raided by the secret police at any moment. ‘They could shut us off any minute,’ said the portal’s managing editor at the time (Personal interview, 9 March 2011). The portal was thus a refuge to disseminate content in a crisis situation.

The challenge of no Internet drove the team to find a way to disseminate the portal’s news content. One technical staff member narrates the incident as it unfolded:

We used all possible means to try to get to the Internet, even illegal ways, but we were not successful. Until we heard about the only one Internet provider in Egypt – ISP named Nour – that was working in Egypt, since it supplied the Egyptian stock market, The American University in Cairo, and very few governmental offices. We went to the Semiramis Hotel, which had taken its connection from it, and got a room for the team there. (Personal interview, 9 March 2011)

As violence intensified from 28 January 2011 onwards, a political ethos shaped staff practices and decisions pertinent to the portal. According to interviews, the print and portal teams did not go home for ten days during this period. Mattresses were spread in two rooms at the HQs for quick staff rests, as coverage continued 24 hours a day. ‘As much as the work was hard, we were so motivated and had a lot of energy; part of us was sympathizing with the events,’ said one reporter (Personal interview, 10 March 2011). Indeed, the management compensated staff for extra working hours, which provided a

financial incentive. Nonetheless, a deeper sense of ‘responsibility’ and resilience heightened staff agency and self-initiatives, as echoed by a senior editor:

It was our realisation that this [uprising] was important news, but also we felt that in our own way this was our contribution to the revolution. We took personal initiative. Kismet for instance went on and booked the hotel room immediately without referring to the finance department. I had a ten-month old baby to breastfeed but I left it with my mother to stay and cover the news. We did not think we just acted out of a sense of duty, and we took personal initiative (Personal interview, 9 March 2011).

A case in point was the editor-in-chief asking female reporters to stay home for their safety. However, several of them continued reporting the events despite the dangers. The conflict was creating a sense of dissent to the political status quo and a keenness to cover the news in spite of the crackdown.

Once an Internet connection was found, the editorial and multimedia team members were relocated at the hotel. The IT director would occasionally pass by from the nearby headquarters to troubleshoot any technical problems reported by the team. ‘At night, we would be 20 in the room,’ recalled one video editor (Personal interview, 11 March 2011).

The workflow and routines of the print and online teams had to change during the crisis. For instance, the newsroom resorted to primitive measures of communications. Since the cell phones were down, staff from the newspaper headquarters had to rely on landlines to contact the team at the hotel. Stories were picked by phone, edited and published in the newsroom and then sent to the hotel. At the same time, the newsroom intensified the adoption of mobile technologies – such as the smartphones and Vado cameras – to cover the erupting clashes in the streets. The hotel multimedia team would then edit and upload the multimedia content, including live footage, videos, and pictures taken by reporters throughout the day, with minimal editing.

To sum up, the extreme technological challenge brought by the political crisis impelled innovative tactics to disseminate news, at a time when the world was eagerly following what was happening in Egypt.

5.7.1.2 Same Technologies, Novel Adaptations

Although some multimedia artifacts had already existed on the portal, their adoption and adaptation strategies changed as a result of the unfolding political crisis. For instance, video production, citizen journalism, and other interactivity features had already been integrated on the AMAY portal since 2010. However, the way and intensity of their use were different. A number of adaptation to multimedia strategies were particularly observed.

The first was the editorial decision to publish videos which were not owned by the organisation, as a strategy to overcome the technical and geographical challenges of covering the uprisings. The editorial strategies that applied to the print, such as verifying sources, no longer applied to the online medium, especially at a time of high political intensity. The decision was influenced by a *crisis* media logic driven by ‘newsworthiness’ rather than ‘ownership’ of news content, as one senior editor explains:

We published several videos brought from YouTube and [taken] from the Internet. It was the first time we ever did this, because there was a lot of very important and rare footage – like that young man who was standing in front of the police water cannon with his chest – we wanted to have it on our portal. Our capacity did not allow one [reporter] in every street, but the revolution was in all of Egypt's streets, so what should we do? So we would take the videos [from YouTube] exactly as they were, write on them ‘through the Internet,’ and place them on our portal. But we did that only with videos. (Personal interview, 15 March 2011)

This adaptation strategy extended to welcoming other news organisations to use AMAY’s own videos. The eight-minute video footage (see Picture 6) – depicting the clashes between the police and protestors at Kasr El-Nile bridge on 28 January 2011 – was repeatedly broadcast over several news channels, including *Aljazeera*, CNN and France

24, a few hours after its upload to the AMAY portal. AMAY did not object. In a TV interview a few months later, Nora Younis, the portal editing manager at the time and the one who recorded the footage on her Personal Sony HD handheld camera, recalled smiling:

It was the first time we were happy our content had been stolen. We were putting our videos on the *Almasry Alyoum* portal, but Egypt did not have Internet, so the Egyptians were not able to see these videos. So someone stole that video from our portal and put it on YouTube. Suddenly, while we were at the hotel following the news on TV, we saw our video on *Aljazeera*, after a while [we found it] on CNN, then on France 24. We saw it all the time everywhere. I was so happy someone stole it because I felt that this shot reached many people. (Albarnameg TV Programme, Interview, YouTube upload 8 October 2011)



Picture 6: The Qasr El-Nil battle shot by the *Almasry Alyoum* team.⁸⁰

This example highlights how the political crisis brought about a more relaxed editorial policy, even with regard to legal copyrights of *Almasry Alyoum*'s own multimedia content. For the newsroom, it was more important that their videos be watched on international satellite TV, especially as Egyptians had no Internet access at the time and would have not have been able to see those videos elsewhere.

The incident also demonstrates the personal initiative and innovation of the portal team member. Nora decided to shoot the escalations from the balcony of the hotel room with her own personal camera, since AMAY's own Vado cameras had no zoom and recorded

⁸⁰ For the full video please check <http://goo.gl/MWR3sk>

only a maximum of one hour (Personal interview, 14 March 2011). She recalls that the raw footage of the bridge battle that she shot was nearly 2 hours and 40 minutes long. ‘I stood shooting for a long time seeing nothing but the smoke behind the [Cairo] Opera [House]. It was much later that people started to appear at Qasr el Nil bridge and the battle actually started,’ she adds. Nora’s personal agency determined how media technological artifacts were adopted and adapted during the crisis, despite the limited newsroom resources.

Secondly, the newsroom culture during the 18 days shifted. Anyone could take video footage, even those who were primarily working for the print paper at the time, as all staff members were expected to use their mobile cameras. As a result, video footages from Cairo and the governorates where the protests were occurring soared. This was a leap change from the initial editorial strategy to target two videos per day for the portal in 2010. ‘We compromised the quality of cameras to get local and live footage,’ said one senior editor (Personal interview, 9 March 2011).

There were also some workflow adaptations to the existing content technological artifacts. ‘The people who have publishing authorities [on the CMS] were already in the streets’, laughed one online desk staff member (Personal interview, 21 March 2012). As a result, the content management system was adjusted slightly to grant reporters additional content entry authorities on the portal. Reporters would upload the videos and text to the content management system remotely from the streets or from their mobile phones. Only one or two ‘online desk’ members had to review the content uploaded, edit and publish online.

The third multimedia adaptation relates to the adoption of citizen journalism and social media. The use of social and citizen journalism was not a ‘business-as-usual’ practice

during the 18 days, even though they had already been introduced to the newsroom months before. Social journalism intensified and was largely integrated into the newsroom practices as a way to keep up with the crisis news events. The portal manager reflects on how the team intensified the reliance on activists' online content at the time:

...during the revolution the events were unusual, and developments were taking place all the time. The whole website team was overloaded. The events were 24 hours a day and bigger than our limited capacities as staff, editors, photographers, publishers, and proofreaders. We depended on our own sources but all the time we had an eye on the things published by citizen journalists and bloggers (Personal interview, 9 March 2011).

Monitoring, re-cycling, and publishing citizens' content was a process that involved editorial and technological change in the newsroom. Interviews and observation found the team had followed assiduously content shared by key bloggers and activists on Facebook, Twitter, and YouTube during the uprising. The online staff reported also re-Tweeting key videos and news more extensively on AMAY social media platforms during that period (Personal interview, 18 March 2013).

The political crisis, hence, drove editorial novelty and technological adaptation to cope with the intensity of the event and the demand on news coverage.

5.7.2 After the 18 Days: Technological Changes Driven by Crisis

The 2011 revolution and political events that followed it motivated new visions for multimedia innovation, and ushered in the expansion of a number of multimedia technological changes. The number of servers⁸¹ has nearly tripled since 2011. Other changes were observed in design and digital services.

The first observed change was the dramatic expansion of visual productions, particularly videos. Over the following two years, the design gradually boosted a higher presence of visuals, including pictures and animated graphics. A new carousel has expanded its main

⁸¹ Including web hosting, databases and load balancers.

story pictures from 370 to 443 pixels since 2011. Moreover, various interactive timelines and maps of key clashes by location were introduced, and other graphical icons promoted dedicated political stories.

The uprisings have especially inspired a general future practice of covering news events through video. Videos were regarded as indispensable, particularly when brought from non-verified (user) sources, since the video details were seen as more credible than textual news sources, as one journalist expresses:

The video had the most impact and it was to some extent verifiable, because you can see it in front of you, not news brought to you from someone or published on a blog which you don't know. If a blogger says, 'killing of four,' for instance, it is not possible for you as a [news] organisation to verify the source. But if you have a video that shows a man killed in Alexandria by a security officer, you can see this security officer in uniform killing a citizen in front of your eyes. The video has credibility to some extent. (Personal interview, N.Y., 9 March 2011)

Observation of the portal content has found a significant increase in videos since 2011. Moreover, the video section 'AMAY TV' was placed in the front page after having been hidden on a sub-page, and an embedded YouTube design enabled direct live streaming of AMAY videos. By January 2013, the team had even produced a series (narrating the 'the Story of 18 Days'⁸²) on the AMAY YouTube channel, that were presented in TV documentary format for the first time – a major shift from the traditional non-narrative video format previously adopted.

⁸² http://www.youtube.com/playlist?list=PLM9b_GuoBijq0DdelIHCqyg3-OkwLM6hP (last accessed 2Feb13).



Picture: 7 The front page visuals increase since 2011⁸³

The second observed change was the increase of space dedicated to citizen journalism, especially users' interactivity and user-generated content (UGC) as a result of the uprisings. The incentive to amplify citizens' voices within the portal was shaped partly by the political crisis. Unlike political news events – which were anticipated and planned by the newsroom long before – the revolution was unforeseen. During the 2010 parliamentary elections, for instance, the newsroom had the time to deploy over 50

⁸³ (taken on 20 Sept 2013 www.almasryalyoum.com)

additional reporters across the country to cover the news. But when with the revolution unexpectedly erupted, deploying users as journalists became evident even in international newsrooms (Palmer, 2012). It was, hence, already clear to the online management by March 2011 that users' interactions and UGC would play a larger role in the future of the portal, especially given the exponential growth of social media consumption among Egyptians since that time:

We have had several ideas after the [25 January] revolution, but most important of them we feel is that there must be a bigger space for citizen journalism interactions and pages dedicated to engaging more with our audience, like forums and special blogs pages. (Personal interview, N.Y., 9 March 2011)



Picture 8: Upper half of AMAY front page in February 2013⁸⁴

⁸⁴ see annex 2 for a screen shot of the full front page in 2004 and 2012.

Picture 8 shows the increased space allocated to citizen journalism dominating the top half of the front page, including voting and a *Sharek* (e.g., ‘Participate’) citizen journalist site. Moreover, a live forum⁸⁵ and a social media-based live blog⁸⁶ – all artifacts allowing users to share their content, create their own campaigns, and interact in debates – were activated on the portal. During the 2011 parliamentary and 2012 presidential elections, the portal also introduced interactive maps enabling users to report ‘election fraud’ cases. These tools were given more salience as the political crises continued over the following two years.

A third change related to new digital services introduced beginning in 2012, which capitalised on existing mobile technologies and social media to help increase content dissemination. For instance, a new OS tablet and smartphone application was developed, in addition to a voice news-alert mobile service. AMAY social media platforms also witnessed an upsurge of activity, leading to over 30% of the portal’s traffic being driven from Facebook in June 2013 alone – a triple increase from June 2010 (Google Analytics, 15 June 2013). Other digital projects, such as the new news management system launched early 2013, allowed stronger convergence and integration of content across platforms.

Finally, as the economic situation deteriorated in 2013, and the value of the Egyptian pound plummeted against the dollar,⁸⁷ the Board dramatically shifted the portal’s technological support. By June 2013, plans were underway to outsource an Egyptian third party to manage and host an entirely new portal. The decision was taken primarily to cut the cost of hosting the portal outside Egypt and overcome the scarcity of foreign currency in the country (Personal interview, O.B., 14 June 2013). The new portal was to be

⁸⁵ <http://forum.almasryalyoum.com>

⁸⁶ <http://liveblog.almasryalyoum.com/>

⁸⁷ The dollar value increased to 7 EGP by June 2013, a near 25% increase from its exchange value in 2010.

launched by the end of the year, with a new customised CMS (using Microsoft technologies) (Personal interview, O.B., 14 June 2013).

The decision would mean major structural changes would be administered to the in-house team of developers and designers. ‘The move would save us a lot of money yearly, but it has the drawback of putting us in a “vendor lock” at the mercy of the company; we will not own the code like in the open-sourced Drupal technology, said the IT director.

Although all these changes might have eventually taken place as a result of growing market demand or of mirroring other competitors, the intensity of political news events and their economic ramifications accelerated the decisions to adopt these changes.

5.7.3 Organisational Changes Shaped by Crisis

The above innovation changes were propelled by dramatic organisational changes that have taken place since the revolution. The new political economy of media discussed in section 3.1.1 led to wider structural changes, which in turn shaped innovation decisions within the newsroom. For instance, the fear of competition compelled a number of business decisions to increase the organisation’s financial viability – in both its print and online production. A new political magazine – *Al Siyasi* – was launched in 2011 and complemented with an online shovel-copy. Moreover, a weekly print for the online English portal – Egypt Independent – was issued.

Moreover, the growing market demand for political news and the increase of media competitors meant that *Almasry Alyoum* had to go through a major shift to survive. Organisational restructuring was generally perceived by administration as a natural reaction to the extreme market change and increasing competition. When asked about the rationale behind the recent newsroom structural changes, one senior administration officer shared:

It is natural that AMAY is going through these structural changes, especially with the developments happening, with a number of TV channels and newspapers emerged in the past period, and all the changes taking place in the media field in Egypt. AMAY did not [previously] have competition as an independent paper, but now we are talking about four other competitors: Alwatan, Alshorouq, Alyoum7 [coming from] a strong portal; in addition to small papers like Alsabah and Alwady. For satellite TV channels, you see the huge amount of channels we have now [...] they all have taken a share of our target audience. Competition became fierce. There are a lot of [media] investors who have arrived in the market, so I think it is very normal for us to change. (Personal interview, A.E 12 December 2012)

5.7.3.1 Online Newsroom Restructuring

Consequently, the organisation underwent a radical process of restructuring, investing millions of Egyptian pounds in a British consultancy to re-create its organisational chart by early 2013 (Personal interview, A.E., 9 January 2013).

Nearly two months after the January 2011 uprisings, a ‘breaking-news editor’ post was introduced to disseminate breaking news coming from reporters across multiple platforms. Moreover, the ‘desk’ role – initially serving the print newsroom – was tasked to cover both print and web content as part of a ‘hub’ disseminating to all media. The portal project manager explained the new workflow:

We have reporters in the street who would send stuff to that ‘hub’ as soon as they got any breaking news. Part of the hub is the breaking news editor who would publish everywhere: on SMS and ticker, then [send] to the video editor, news editor, photography, social media, print, web editor. [...] The content became much more, and the reporters have become more engaged with the [web] team. The speed [of news content] has also changed. The portal should be updated every five minutes automatically. The portal manager also set a quota of news items for each staff member, so people would work more. (Personal interview, K.E., 14 March 2011)

The political events drew more attention to the pressing need to cope with fast-evolving events, although management awareness existed prior to the uprisings, and particularly when the portal was seen by the board as not progressing at the desired speed. A case in point was the shuffling that took place prior to the parliamentary elections in November 2010. The existing portal managing editor Ehab Elzalaky was moved to the print team

and replaced by two managing editors a(who were previously the multimedia head and the community head).

Early 2012, the editor-in-chief Magdy Elgallad departed AMAY causing a domino effect of subsequent changes in the newsroom. Elgallad was replaced by an interim senior journalist before Yasser Rizk – as senior journalist long affiliated with the state-owned *Alakhbar* paper – was hired. Following his departure and during the same year, the portal managing editors were changed twice and the IT manager was replaced. There was also a striking shift in senior management during 2012. The managing director and vice chairman – one of the AMAY founders and driving forces behind the portal's innovation – departed the board. The portal's project manager – another key figure in the creation and development of the portal – left as well (please see 206 for more details).

The departure of the key driving agents of the portal was followed by a series of resignations in the print and the online, including the IT manager overseeing the portal. One explanation for the mass departure, echoed in interviews, was that the change in leadership impacted the staff morale. Replacing the charismatic Elgallad with a 'state editorial mentality,' despite having existing qualified staff members who could take over, was seen as a disappointment to some staff (Personal interview, 12 January 2013). Moreover, several senior and well-experienced journalists left with Elgallad to go his new newspaper *Alwatan*. Others attributed the mass resignations to anger over the subsequent replacement of those journalists with less capable and more junior staff.

By the end of 2012, the online newsroom had nearly doubled in size and completely changed in composition. The news portal staff increased from 20 to 42 members (excluding the social media and multimedia staff). Moreover, the online newsroom team was divided into three separate divisions (see Figure 18 on page 192), each with a

dedicated editor-in-chief. These changes were the result of the new management and the wider board business decisions discussed earlier.

It might be common for news organisation to undergo continuous and dramatic staff reshuffling, more so as they attempt to converge their newsrooms and cut costs. It is also natural for growing news organisations such as AMAY to evolve gradually in structure. However, the scale and nature of structural change over one year since the revolution was dramatic, and signalled that the political environment might have been a factor in these changes.

Consequently, some of these structural changes hindered the flow of multimedia implementation. A case in point was the *Sharek* page. As one senior technical staff member shared: ‘The challenges are not necessarily technical. Something like the ‘*Sharek*’ website has been repeated twice as a project. The challenges were not technical at all, but the product owner has been changed more than once’ (Personal interview, 8 December 2012).

5.7.3.2 Political Ethos Driving Innovation

The new political ethos, which started after the first 18 days of uprisings (see section 5.7.1.1), intensified; and consequently shaped the journalists’ and the wider organisation’s innovation decisions in the following months. Following the ousting of Mubarak, a ‘revolutionary’ air was increasingly observed in the newsroom. Mixed sentiments of ‘government defiance,’ pride, and joy were not different from the euphoria the rest of the country was feeling at the time. The conflict between AMAY journalists and the state deepened those sentiments. In March 2011, the team reported that several journalists were arrested and their equipment confiscated during the 18 days. Some were also prevented from reporting the aftermath clashes. By November 2011, four out of 17

journalist assaults – reported by the Syndicate of the Committee to Protect Journalists – were targeted at AMAY. In one of these, Ahmed Abdel-Fatah, a photojournalist at AMAY, lost his eye (CPJ alert, 21 November 2011). This state harassment continued until 2013 (*Almasry Alyoum*, 2013b).

Consequently, this political ethos drove editorial and technological practices. Journalists expressed their personal political views and experiences on the AMAY blog dedicated to ‘Journalists’ Voices.’⁸⁸ Although the blog beta version was introduced in August 2010 – to enable journalists to directly interact with users – it was not until after the revolution that some staff political blogs intensified.

Moreover, the news organisation became directly involved in wider public debate by joining national events to debate the political scenarios with different political parties and leaders. It also had been proactively organising debates around the constitution since February 2011. In March 2011, AMAY hosted a political debate around the Constitution 1976, at the Grand Hyatt Hotel in Cairo on 7 March 2011, which was chaired by the editor-in-chief and attended by over 200 political and judicial experts. The event was promoted on its portal, and AMAY shared a ‘vote’ by the attendees, only days before the actual national constitution referendum was conducted. Moreover, a print supplement *Masr Bokra* (Egypt Tomorrow) was published at the same time.

The news organisation’s political involvement reflected on its editorial line and professional news values. As a senior editor reflected:

We are no longer hiding our political agenda. We are becoming much more upfront and clear about our political stance and our support for the revolution is becoming clearer in our editorial policy. Being the newspaper with the highest reach today, we have the tools to influence and to take part in major dialogue initiatives in the country. (Personal interview, 7 March, 2011)

⁸⁸ <http://www.almasryalyoum.com/blogs> (last accessed 12 January 2013).

While this new strategy did not have a direct effect on the portal innovation, the political inclination of AMAY impacted its general editorial line, and thus, its multimedia content.

To sum up, *Almasry Alyoum* became ‘personally’ involved in politics from the beginning of the 25 Jan 2011 revolution: its reporters were arrested and its senior management became directly involved in the political public sphere. This also reflected on its innovation decisions. Its innovation decisions were shaped by the desire to make profit out of a growing demand for political news consumption, as well as a deep political motivation.

5.8 Newsrooms’ Conceptions of Users and Multimedia Production

5.8.1 Users and their Preferences

Thanks to the savvy change agents, users and their opinions are highly regarded at AMAY. The key portal management follow Google Analytics and other social media tools for users’ analysis on a daily basis. Increasingly, online polls and surveys elicit users’ feedback on the portal. The portal’s community manager post was also created in 2010 to strengthen knowledge about users and encourage user content production, with the ultimate aim of ‘retaining loyalty, increasing outreach, and improving the AMAY brand’ (AMAY Community Strategic Plan, 2010). Finally, the appointment of the portal’s community manager in 2012 as the new organisation’s managing director signalled how user-driven the organisation has become. The departing director manager recommended Fathy as his replacement.

The majority of the newsroom perceives its Internet readers as younger, politically active, and more engaged than their print counterparts. Following user behaviour on the portal and social platforms – such as which stories they follow and comment on – thus gave AMAY an opportunity to learn the spectrum of political and religious views of the

AMAY audience. This is particularly perceived as important, given that AMAY cannot afford to conduct wider studies on its print readership.

Although data on users are far from systematically integrated into the innovation or editorial workflows, there are examples of how users' data are used. The community manager explains how he uses the traffic data:

I follow Google data every day, and when one day I find users stayed only for 1.1 min on the multimedia [video] page, I know there is a [streaming] problem because the smallest video is not less than 3 minutes. I figured the videos are heavy and get interrupted in loading. So in this situation, I discuss with the multimedia manager a plan to make lighter video versions like YouTube. When some stories are getting high traffic on Facebook, I inform the editors at the morning meeting, so they know what interests users. (Personal interview, F.A., 16 September 2010)

Two contrasting examples reveal how the organisation increasingly followed users' preferences. The first is the provision of a PDF of the daily print on the portal for users who (in the early days of the portal) who still needed to see a print 'look' of the paper, including those in diaspora who don't have access to the print publication. Even after the new makeover of the portal in 2010, AMAY still kept 'Today's issue' – a shovel copy of the print.⁸⁹

In contrast, as the political crisis intensified, another different technology had to meet users' reading behaviour. One staff member explains how the production of the 'minute-by-minute' update and its technology (see Picture: 7) were introduced to the portal:

Every two or three months, very intense clashes take place in the streets, like Mubarak's Trial, and they require hot coverage – news and very quick updates almost like Tweets. It would not work to write an article two hours later about something that happened. People follow the news aggressively, they refresh the portal every five minutes to see what is new, and they go to Facebook and Twitter to get instant updates, not wait for us to publish news. So a new demand emerged and we needed a new service, we called it 'minute-by-minute' news coverage. We are trying to compete with the social networks that are definitely faster than us.

⁸⁹ <http://today.almasryalyoum.com/>

But we wanted to make speedy updates like Twitter, only trusted. (Personal interview, O.B, 8 December 2012)

Gauging users' preferences and opinions was not the only ambition of AMAY. The organisation was keen to capitalise on users' citizen journalism skills. In 2010, there were plans to train a number of citizen journalists, in order to help with the coverage of the parliament elections at the time. These plans however were not materialised due to time constraints.

5.8.2 Industry and Technology: The 'Ideal' Design of an Online Site

One of the strongest factors shaping the visions and decisions about the portal's innovation is the conceptions about the 'ideal design' and what other media organisations are doing. Observations and interviews revealed that all change actors and opinion leaders (see section 5.6.4) regularly observe successful local and international competitors. One senior editor explained how the idea of developing a 'modern' portal came about and reflects the conceptions several key actors in AMAY shared:

Most of the board – being businessmen working in different business sectors – they read foreign news and see foreign news sites. So they had the concept that we need to be present online for our brand, and to think at three levels: print, online, and TV. (Personal interview, 20 September 2010)

The most followed sites are the top ranked news sites and news aggregators in Egypt, the Arab World, and worldwide. The portal team particularly followed Anglo-Saxon news organisations such as CNN (English and Arabic portals), The Guardian, and the Times. This could be attributed to the British historical and cultural influence on Egypt, particularly since the majority of the team's education was in English (albeit some also knew German and French).

The more technical teams – including the IT director and the community manager at the time – also followed *Alexa* and other ranking and web analysis tools. Through these tools,

the team was able to monitor competitors, especially within Egypt, as well as know which sites drive traffic to AMAY's own portal. The team's visions about the 'ideal' and successful models of multimedia designs and news services are also shaped by this data.

Interestingly, the team did not often make the distinction between portals that belong to broadcast or print media organisations. What often factored their selection were their personal preferences, and the design and content provided by those news sites.

Increasingly, a number of services and designs were similar to other Egyptian news websites. For instance, the portal introduced 'live surveys', only weeks after <http://shorouknews.com/> (another Egyptian newspaper) had launched the service in May 2013.

5.8.2.1 The Guardian Experience

But one specific strategic influence on the management's vision of transforming the news site was the partnership with The Guardian Media Group (GMG) – one of the UK's media organisations.⁹⁰ In 2007, GMG approached AMAY as part of its initiative to support 'high-quality, independent, liberal journalism' to help their multimedia and convergence (GMG Website, 2013). The encounter and following partnership entirely changed the AMAY portal's vision, from a mere shovel-copy of the print to a full-fledged multimedia portal. The portal project manager – which role was created shortly after the first visit to the Guardian – explained how the peer learning began:

They had a program to support independent news media...The Guardian people talked to the managing director and board members and decided to support us. Part of our website development was for us to see what is happening there and [them] to give us their expertise... In 2007, before traveling there, they told us you are a success story in terms of print but you need to think digital, and digital does not mean a parallel organisation, you need to think 'multi-platform' and convergence. They told us to visit Manchester Evening News, which was

⁹⁰ GMG 'Our Journalism' initiative is part of the SCOTT Trust projects <http://www.gmgplc.co.uk/our-journalism/>

an applicable model of a similar smaller organisation that was fully converged – it was more converged than the Guardian at the time. (Personal interview, 16 September 2010)

Although the senior management had a general ‘sense’ that online was important, the real inspiration and guidance on how to implement a multimedia vision was from the Guardian partnership. The portal project manager reflects:

The consciousness of the management was that we have to be digital; that this is the future. We have to have a presence on the Internet. But how the consciousness shifted to having something different from the way we have the print paper (and which needs to have its own production, similar to a TV medium, not just bring someone to read the newspaper) came from The Guardian, when we went and saw the operation there. We took their advice seriously and worked hard. After seeing their websites, we wanted to do something of the same magnitude. So we started to write our requirements and had technical tenders offering proposals. (Personal interview, 16 September 2010)

The visit to the Guardian and the online newsroom of its subsidiary– the Manchester Evening News – was indeed a turning point in the portal, as the close affiliation with the British leading paper shifted the way AMAY worked onwards. The organisation hired an IT company and a new multimedia manager shortly after. A series of training workshops for these and other senior editors subsequently took place at the Guardian (see section 5.6.2). The level of influence was apparent in the way the team repeatedly referred to the designs and the online newsroom structure of the Manchester Evening News as the ‘ideal’ ultimate which they aspired to emulate.

Despite the strong influence of The Guardian model on AMAY multimedia developments, the model was not adopted as is. A case in point is AMAY decision to train all its journalists (including those in the remote governments) on video journalism, despite being advised by The Guardian to train a handful of people. The Multimedia manager at the time said: ‘we need to reach the local remote areas, so we had to change the formula the Guardian gave us; and when they knew what they did, they liked it.’ (Personal interview, 5 January 2011).

5.9 Conclusion and Discussion: Crisis, a Boost and a Barrier to Multimedia Innovation

The case of *Almasry Alyoum* provides a strong example of the way politics, business, and media are strongly intertwined. On one hand, it shows how the intensity of political crisis was a strong catalyst that accentuated the realization of the portal's critical role, speeded innovation processes, and shifted the newsroom composition. On the other, it portrays the quintessential tension between politics and the business of news in Egypt. A highly politicised context – ignited by crises, instability and regime changes – shaped new journalistic values, brought crises in the newsroom, and heightened competition. All this created new demands and pressures on the news organisation. At the same time, *Almasry Alyoum* – a young, professional and ambitious news organisation – strived to achieve its vision of becoming a modern multimedia newsroom. The two realities moved in parallel. At critical junctures however, and sometimes in surprising ways, political crises speeded up innovation in online news coverage; or disrupted innovation plans.

The first part of the chapter explained how the Egyptian mediascape has evolved within a historically politicised context – one that has been characterized by manipulation and control by different political actors to achieve political gains. The second part examined the different organisational actors that influence the visions and strategies of innovation. It showed that innovation adoption is not straightforward, but often depends on business and market factors, and also on individual agencies that drive or slow implementation.

The embedded case study, then, illustrated how the political surroundings during the uprising affected the organisation's business choices, ethos, and innovation strategies. Crisis created unprecedented consequences, both positive and negative, for innovation. The four-day Internet cut instigated innovation outside and within the online newsroom to

enable the dissemination of content online. At the same time, the political forces constantly challenged space and technological affordances of the newsroom. The succeeding political events henceforth shaped the newsroom composition level and the related portal multimedia innovation processes. For instance, shifts in the newsroom composition, as markets for online news expanded, pushed the adoption of new multimedia innovations and digital services offerings. The portal decisions were driven by a business, as well as political media logic.

The findings support previous research showing that Arab journalists' political contexts impact their identity and values in the region (Amin, 2002; Mellor, 2011b; Pintak, 2011).

They also support the notion that crisis drives news innovation. How newsrooms defy crisis through innovative technological methods is not new; it goes back to the 19th century. Martin and Bodnar (2009) documented how the French press adopted technological imagination during the Prussian four-month siege of Paris in 1870-71, when four illustrated periodicals employed innovative methods such as the balloon and the carrier pigeon to circulate news content related to the crisis abroad and beyond the Prussian army's control. Other longitudinal research analysed how CNN.com and MSNBC.com, have adopted innovative media tactics – including using multimedia features and users' interactivity to respond to crisis news events (Taylor & Perry, 2005). For instance, Palmer (2012) explained how the CNN capitalised on its iReport citizen journalism tool to cover the Iranian uprising during 2009. Nevertheless, the case of Egypt transitional and unstable political setting brings a new insight into the media innovations within quasi-democratic and restrictive political systems.

The case of *Almasry Alyoum*, therefore, demonstrates how socio-economic processes, including the national social and political systems within which media operates, influence

the way technologies are adopted in a newsroom. It reinforces the mutual shaping of technology approaches – which posits that, both social conditions and the technological artifacts within which they evolve determine how technology is adopted. Moreover, the case goes one step further to show that political conditions within a volatile political scene intensify these processes. Political crisis in Egypt has validated, and at times hindered, innovation within the AMAY newsroom.

This certainly does not offer a construct of political determinism, but rather expands the mutual shaping of technology approaches into a more holistic assembly. Future research could look into how the political context, both of unstable, as well as more stable democracies, impacts the speed and direction of innovation within newsrooms.

6 Chapter Six: *Aljazeera* Net, Qatar: Crisis-News Innovation in a Transnational Context

6.1 Introduction

At a morning stand-up meeting on a very hot June day in 2010, the picture of ‘Khaled Saeed’ – the young Egyptian claimed to have been beaten to death by Egyptian police – was the centre of a debate in the newsroom. *Aljazeera* Net journalists and editors disagreed about whether it was appropriate to publish Saeed’s photo on the portal, given that it contained content deemed ‘too violent’ and possibly disturbing to viewers. The photo, which had been taken soon after his death, was a close-up that graphically showed the young man’s bloody bruises, blue swollen eye, and broken teeth. The decision was made to post the photo, since it was deemed to be in the public interest and had already been widely circulated across social media and blogs. This was not the first time *Aljazeera*’s multimedia content brought controversy into the newsroom. After all, *Aljazeera* was the first channel to air Osama Bin Laden’s videos, pictures of Gaza after its bombing by Israel, and graphic details of America’s invasion of Iraq.

Nearly six months later, Khaled Saeed’s photo and the story of his death, which contributed to public fury over Egyptian police brutality, was a central aspect in sparking the Egyptian uprising of 25 January 2011 – the nation’s official ‘police day.’

During the uprising, as in previous political crises in the region, *Aljazeera* became both a mediator in the coverage of events and the object of news itself. *Aljazeera*’s coverage of what became known as the ‘Arab Spring’ was widely watched, especially in the West, as the world was glued to television screens to follow the uprisings as they erupted. *Aljazeera*’s army of Arabic reporters across the region’s cities presented an alternative to several Western news organisations such as CNN, BBC, and Fox covering the uprising.

Aljazeera was also among the first news organisations to pin the term ‘revolution’⁹¹ on the Egyptian uprising. Nevertheless, within Egypt, its coverage was highly controversial, and placed *Aljazeera* under scrutiny by the government and other news outlets. In the early days of the uprising, the Egyptian state pulled *Aljazeera*’s coverage off the air in Egypt. Its reporters had to go undercover, and *Aljazeera* Net’s Web portal was hacked.

This coverage and the resulting crisis in the Network shaped the dynamics of innovation inside *Aljazeera* Net’s newsroom throughout the 18 days of the uprising and beyond. The tense political environment in Egypt was reflected in the newsroom’s editorial decisions, and also to some extent, the innovation processes that were underway at the same time.

6.1.1 The Case Study Approach

This case study focuses on the main *Aljazeera* Arabic online newsroom, known as *Aljazeera* Net.⁹² It examines the factors that shaped innovation within its Arabic portal www.aljazeera.net. In particular, it highlights the dynamics of innovation during and following the Egyptian revolution.

As discussed in more detail in the methods chapter, the empirical data for the case was based on 28 recorded semi-structured interviews and tens of personal communications. These were conducted with the editorial, technical, and senior management staff at *Aljazeera* Net, the English portal, the New Media Department, the Research and Strategic Planning Department, and the IT department. Moreover, the author devoted two weeks to participant observation of the *Aljazeera* Net newsroom during June 2010, in addition to two day-visits to the different *Aljazeera* premises, departments, and newsrooms in Doha, Qatar, which allowed this study to examine the work practices and dynamics of

⁹¹ *Aljazeera* was also among the first news organisations to coin the term ‘coup’ on the second Egyptian uprising of June 30, 2013 that ousted President Morsi.

⁹² The term *Aljazeera* Net will be used in the chapter, henceforth, to signify *Aljazeera*’s dedicated Arabic portal and newsroom. *Aljazeera* Net [online] newsroom consists of 100 members, and is separate from the remaining newsrooms, which sub-websites also reside on *Aljazeera.net* portal.

communication across the news sites. The researcher also observed the portal's features, services, and multimedia content over a span of three years (June 2010-June 2013), in addition to reviewing the portal's evolving design archives from inception to 2013.

Despite the tremendous hospitality and tolerance of *Aljazeera*, the process of information gathering was challenging. Generally, I was welcomed as a researcher in the *Aljazeera* Net newsroom and the staff at *Aljazeera* Net were helpful. However, a number of formal interviews with key management and IT officials failed to provide significant data or insights on the wider network. There is a general high level of privacy measures taken at *Aljazeera*. For instance, some data, such as accurate figures on *Aljazeera* budgets, staff numbers, or facts on critical events such as the portal's hacking, closure of the *Aljazeera* Bureau in Cairo, or the departure of WadaH Khanfar – the former general director, were not possible to get. As a global news provider, *Aljazeera* is understandably very strict about the confidentiality commitment to its users and competitive issues with global rivals. This was especially the case given the political nature of the events and their repercussions on the Network's security and reputation. To compensate for these problems, some data was collected outside the formal fact-finding framework. This included off-the-record and informal talks with staff outside the work environment and fact checking about *Aljazeera* from other news sources. Moreover, *Aljazeera* staff agreed to provide a few months of Google Analytic monthly reports, under the condition of a confidentiality agreement that this data would not be used beyond the analysis required for this thesis.

There were also some difficulties stemming from being a woman inside a largely conservative and male-dominated newsroom, such as reduced opportunities to observe the newsroom in the evenings or communicate freely with some staff members during the interviews. To overcome these challenges I adopted a few courteous steps. For instance,

although I was not wearing a scarf (like all the women in the newsrooms), I made sure to carefully observe a modest conservative attire which respected this newsroom's culture. Joining staff during prayer times (in the ladies section) also helped me integrate quicker and be perceived as part of the team. Meanwhile, maintaining a friendly but 'not too outgoing' attitude was imperative. Balancing between being approachable and not being perceived as disrespecting to the boundaries set for men and women interactions, was key to being integrated in the group. For instance, during break times, like the rest of females, I did not mingle or chat with men in the cafeteria. Discussions with men were often limited to interview times. I also played down my educational background during interviews, having seen that it slightly intimidated some of the male subjects first interviewed.

6.1.2 Outline of the Chapter

The chapter begins with a depiction of the general political and historical context of the Qatari mediascape and Internet scene. It then presents a brief overview of the *Aljazeera* organisation including its history, showing how it has become one of the largest news organisations in the world. It then examines the specific newsroom of *Aljazeera* Net, and the dynamics of multimedia production and innovation within it. The description of *Aljazeera* Net outlines its business models, its portal infrastructure and development, the routines of news production, as well as, the key agents of innovations in the newsroom and the dynamics of interactions between *Aljazeera* English and Arabic portals. An embedded case study then follows, focusing on the Egyptian uprising and how it shaped innovation decisions within the newsroom. The last section discusses the important role played by conceptions of the audience and how data gathered on users shape decisions about innovation.

6.2 Context and History: Setting the Scene for Innovation

The history of media in Qatar is relatively nascent. The country was a British protectorate from 1867 until it gained independence in 1971. The shift to developing strong ties with America, after the long-term relationship with Great Britain, was reinforced by the Iraq wars in 1990 and 2003.

Qatar's population – which topped two million in 2013⁹³ – was largely nomadic and dependent on pearl hunting until the discovery of natural gas in 1971. The economy has boomed since, making Qatar the richest state per capita in the world (UNDP Report, 2012).

Since a 'soft *coup*' undertaken by the Emir Sheikh Hamad bin Khalifa Althani against his father in 1996, there have been a number of measures to liberalise the state. This came as part of the country's attempt to liberalise its economy, strengthen its relations with USA, and position itself as an independent state from Saudi Arabia. Liberalisation efforts included an order to develop a new Qatari constitution, which was approved in 2004, granting some civil liberties and equal rights, expanding the parliament, and enabling women to run for parliament (Lambert, 2011; Rathmell & Schulze, 2000; Saif, 2008).

On 25 June 2013, Sheikh Hamad handed power over to his son Sheikh Tamim bin Hamad Althani – an unprecedented initiative by any similar Arab leader. The decision coincided with growing concern over Qatar's foreign policy, particularly its involvement in the Arab uprisings in Syria, Egypt, and Libya.

6.3 Politics and Media in Qatar

Rugh Williams classifies the Qatari press, together with that of the majority of Gulf countries, Tunisia, and Jordan, as the 'Loyalist press' – one that is 'consistently loyal to

⁹³ Only 250,000 of Qatar's population are native Qataris.

and supportive of the regime in power, despite the fact that they are privately owned' (1987: 71). Looking primarily at four key newspapers in Qatar during the 1980s, Rugh argues that, although the regime does not control them, it does evoke loyalty to its policies and top personnel because of the legal, financial, and especially the political conditions under which the press functions (1987: 88).

The mediascape in Qatar is shaped by some media liberalisation attempts introduced by Sheikh Khalifa, and later when his son Sheikh Hamad took power in 1995. For example, the latter abolished the Information Ministry and the notion of 'censors' – who used to sit in newsrooms. The Qatar Foundation (QF) was also established in the same year to promote journalism and communication in the country, together with education and research. Moreover, the Doha Centre for Media Freedom was set up in 2008 with the aim of increasing the margin of freedom given to media in the country (Arab Media Outlook, 2012: 141). By 2012, the country had seven daily newspapers and two terrestrial state TV channels, in addition to the partially state -funded *Aljazeera*.

Despite measures for liberalisation and democratisation of the country, the thrust of Rugh's press description persists across the wider media system of the country. Theoretically, freedom of opinion and of the press 'are guaranteed according to the law' by articles 47 and 48 in the 2003 constitution (Qatar Constitution, 2003). However, the Press and Publications Law no. 8 of 1979 has not changed for over three decades, despite calls for this in media circles (Roth, 2013). The law does not explicitly recognise radio, television, or the Internet, nor does it guarantee the press freedoms promised by the new constitution. In the law, defamation is a 'criminal,' not a 'civil' offense. Moreover, there is a general prohibition against criticising the Emir (Article 46) or printing anything that 'may instigate the overthrow of the regime in the country, cause harm to or damage the

supreme interest of the state,’ or ‘any propaganda urging to embrace destructive principles, ...’ (Article 47).

For such reasons, NGOs have ranked press freedom in Qatar among the lowest in the world. For example, Freedom House has rated the country’s press among those that are ‘Not Free,’ placing it 153rd in 2013, which was down from 148th in 2011 (Freedom House, 2012, 2013). Likewise, Qatar is on Amnesty International and Reporters without Borders watch lists, both having reported yearly detentions of Qatari activists and bloggers, some of whom were banned from leaving the country even after their release.⁹⁴ Poets such as Muhammad Alajami, who praised the Arab Spring in 2012 and critiqued the Emir, received a life prison sentence (Reuters, 2012).

As a result, Qatari media impose their own self-censorship, rarely opposing state policies or critiquing the ruling family. This was evident during the Arab uprisings, as Qatari media did not report any anti-government protests similar to those in other countries in the region, despite calls for protests on Facebook in February and March 2011 (Amnesty International Report, 2012). Even protests in neighbouring Gulf countries such as Bahrain were given scant coverage. This is ironic in light of the strong support of the Qatari state for uprisings in countries such as Libya, Syria, and Egypt. Human Rights Watch criticised what it called the ‘double standards on Freedom of Expression’ in Qatar (Human Rights Watch, 2012, 2013).

In addition to the legal environment, the financial context of the media in Qatar provides another rationale for media censorship. The Qatari government is still a major source of revenue for the media, in the form of direct subsidies and advertisements. Consequently, government officials still, from time to time, contact media personnel informally to make

⁹⁴ Amnesty International Qatar Report 2010 to 2013 [Last Accessed 3 June 2013]; Reporters Without Borders 2012 [Last Accessed 5 December 2012].

specific issues of government policy clear, including what the regime would like to have emphasised and what is sensitive (Lynch, 2006; H. Miles, 2005).

6.4 Internet and Online News in Qatar

With a young population – half of which is below age 30 – and a strong state Internet infrastructure, Qatar's 82% Internet penetration is among the highest in the Arab World. The country also boasted an 84% broadband penetration and 134% mobile penetration in 2011 (Arab Media Outlook report, 2012: 68)

The country has invested heavily in communication infrastructures, including fibre optic cables and satellites. Major projects such as the Fibre-to-the Home (FTTH) project, the Es'Hail Satellite Program, and the international undersea cable project were expected to increase Internet adoption and provide cost-effective connectivity to businesses and individuals in the state (Qatar 's Digital Media Landscape, 2011).

Media consumption is also high in Qatar. Online newspapers are particularly popular, with 38% of Internet users accessing online newspapers; this is only 10% below the percentage of users who are on social media (*Qatar's Digital Media Landscape.*, 2011). Moreover, Qataris are advanced in the use of mobile Internet technology, with 24% of Internet users accessing digital media through a mobile device, while 13% rely on smartphones such as Blackberry or iPhone (6).

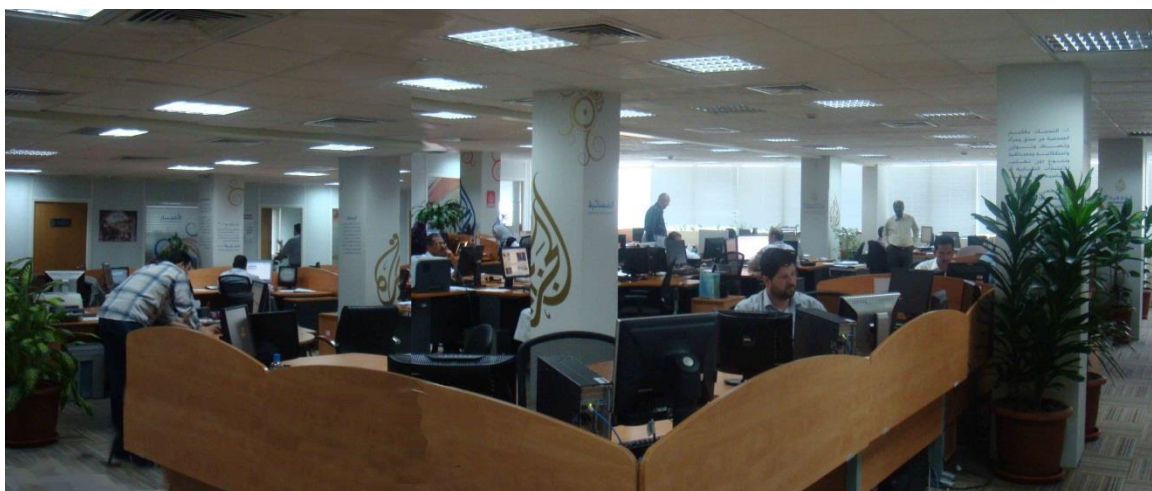
Despite Qatar's high Internet capacity, censorship remains a major issue for Internet content producers. In June 2012, the Shurah Council approved a new draft media law that prohibited the publication or broadcast (including online content) of anything that offends the ruling family, or causes serious harm to the state or its interests (Article 53, Draft Law 2012). If approved, the measures would give authorities wide leeway to punish the owners of websites or social media users for items considered a threat to 'state security'

or the ‘general order’ (*Aljazeera* English, 30 May 2013). The state also filters websites containing political criticism of Gulf countries and material deemed hostile to Islam, and extensively blocks sexual content (Open Net Initiative, 2009). The filtering of Internet content intensified during the Arab Spring, in 2011-12, when the Qatari government blocked some political websites for fear of the uprisings reaching home.

6.5 *Aljazeera*

Aljazeera Media Network – where *Aljazeera* literally translated means ‘The Island,’ implying the Arabian Peninsula of Qatar – was first launched in November 1996 as a Pan-Arab satellite channel serving Arab audiences. Since then, *Aljazeera* has steadily grown to become a leading multinational news conglomerate owning over 20 channels. In 2006, it launched its international 24-hour English language news TV channel. Four years later, *Aljazeera* Balkans was launched in the Bosnian, Croatian, and Serbian languages with headquarters in Sarajevo, Bosnia, and Herzegovina. By early 2013, *Aljazeera* Network had bought American Current TV, calling it *Aljazeera* America, to serve an audience of up to 42 million Americans (*Aljazeera*, 2013). In March 2013, the network also launched the Turkish *Aljazeera* Türk channel and announced plans to launch another in French. The Network also expanded to several sports channels, a children’s interest channel,⁹⁵ an Arabic documentary channel, and a training centre. There were even plans to expand into *Aljazeera* Kiswahili, Spanish, and Urdu, albeit none had materialised.

⁹⁵ <http://www.jcctv.net/> (last accessed 12 June 2013).



Picture 9 Aljazeera Net newsroom in 2010

Aljazeera Net is the main online Arabic face of *Aljazeera*. The portal www.Aljazeera.net – effectively launched in 2001 – comprises over ten websites in three languages: *Aljazeera* Net (Arabic), English, Documentary, Live, Sport, Studies Centre, Training Centre, Recruitment, Satellite Frequencies, *Aljazeera* Festival, and *Aljazeera* Balkan. After the 2011 Egyptian revolution, mubasher-misr.Aljazeera.net was also launched to cover news and political analysis of the uprising. Apart from the English portal (which is hosted on Aljazeera.com), all these departments are hosted under the same domain – *Aljazeera.net*. Nevertheless, each of the websites is associated with newsroom structures and decision-making processes separate from *Aljazeera* Net newsroom, even carrying different designs and identities.

For the purposes of this thesis, in order to maintain a consistent frame across the other two Arabic portal cases and develop a practical focus, this study is anchored on the *Aljazeera* Net newsroom. This enables the chapter to focus on *Aljazeera* Arabic with reference to other departments when valuable in understanding the wider ecology of *Aljazeera*.

6.5.1 Size and Business Model

Aljazeera is far and away the largest of the three cases, being one of the largest news organisations in the world. Over the span of 15 years since its inception, *Aljazeera* has grown to become a home to multiple broadcasting channels, employing nearly 5,000 staff⁹⁶ members at over 100 bureaus across the world. The organisation's strategic move to identify itself as a 'network' – with sports, children, current affairs, documentary, and English language channels –instead of a 'channel' reflects the growing culture of *Aljazeera* to become a global news organisation.

With respect to *Aljazeera* Net, the Arabic online newsroom employs nearly 100 staff members, including 50 reporters dedicated only to the portal, along with its own editorial, technical, and multimedia staff. Its portal is supported by *Aljazeera*'s international telecommunications network, enabling high capacity bandwidth to provide fast transmission and distribution of content as well as efficient live streaming.

The *Aljazeera* Net Arabic portal is the first and largest Arabic mainstream news website in the world (Alexa News Category Ranking, August 2010). Investment in online innovation has reached nearly US \$2 million in 2010 and the organisation is keen on presenting state-of-the-art services to its users (Personal interview, S.H, 16 June 2010). Consequently, *Aljazeera* is far more advanced than the majority of Arab news portals (albeit many have begun to catch up since late 2012). For instance, unlike many Arab online newsrooms, *Aljazeera* Net has developed its own multimedia style guide. It also has well-developed templates to standardise design on the different portal pages. This is possible in light of the portal's budget surpassing any rival in the region by a large margin.

⁹⁶ *Aljazeera* English portal reports different numbers from those reported in interviews. It is possible however that the portal's records might be outdated <http://goo.gl/t7QePj> [last accessed 12 June 2013]

However, *Aljazeera's* business model is based primarily on Qatari state funding. The channel was initially built by its founding director, the Qatar Mohammed Jassim Al-Ali, as a family business. But the model has evolved as the Network grew in size and complexity. The Emir – Sheikh Hamad bin Khalifa al-Thani, who sits on the board of directors – funded the start of the network with a US \$137 million loan until it was self-sufficient (H. Miles, 2005, p. 28), and injects tens of million into the network every year through grants and other government loans (Miles, 2005; Zayani & Sahraoui, 2007; Zayani, 2005: 132).

The majority of *Aljazeera's* news channels are aired free of charge via satellite services⁹⁷; however, an *Aljazeera Sports* package is offered through a paid subscription service. The Network is also offered as part of a multi-channel Arabic package on several cable networks in North America, Australia, and Europe.

Advertisements, documentary video sales, and the media training and development centre also provide some, albeit a minor proportion of financial support to the Network. For instance, *Aljazeera* has only about 45 minutes of advertising each day, compared with about 300 minutes of daily commercial advertising on other networks such as the Cable News Network (CNN) (Miles, 2005: 2). Moreover, despite the slight increase in the use of advertising banners on the Arabic online portal, advertising is minimal. Banners are often used for cross-promoting the portal's content. The low advertising on the channels and the websites is largely attributed to politically-driven advertising boycotts (Miles, 2005; Zayani, 2005).

⁹⁷ With the exception of *Aljazeera English* that stopped free airing with the launch of *Aljazeera America* through cable TV subscription

In 2011, *Aljazeera* changed its legal status to a ‘private organisation devoted to public interest’⁹⁸ called ‘*Aljazeera Media Network*,’ to enable its international expansion plans (Toumi, 2011). This also meant that *Aljazeera* would have private shareholders; however, in practice this did not happen until 2013.

6.5.2 Political Economy of *Aljazeera*

Given its large dependence on state funding, *Aljazeera* experienced more political pressures as it grew in size. This became particularly salient as Qatar has come to be viewed as a strong ally of the USA since the Gulf war. Since 2002, AsSalheya camp and AlUdeid airbase in Doha have hosted the headquarters of the US Military Central Command (USCENTCOM) in the Middle East⁹⁹ - the largest American military base outside the continental US (Roberts, 2011) – which serves US strategic interests in the region. Moreover, Wikileaks¹⁰⁰ cables from the US embassy in Doha revealed Bush administration pressure on the channel to curb its coverage of the Iraq war, claiming its managing director at the time, Waddah Khanfar, had removed some sensitive content from the channel and websites (Booth, 2010; Zayani, 2013). This helps to explain why *Aljazeera* has been allowed to air in the USA since 2010, after having been banned for a decade. A number of media sociologists have, thus, argued that ‘the very perception of the [*Aljazeera*] network as a beacon of free speech is starting to succumb to a reality check.’ (Zayani & Shraoui, 2007: 105). Some even argue that *Aljazeera* presents a Qatari model of ‘Public Diplomacy’ run as a hybrid state-sponsored and private network (Samuel-Azran, 2013).

⁹⁸ Suggesting the channel would not deal with issues that are harmful to Qatar national security (Toumi, 2011).

⁹⁹ Camp as-Sayliyah is ‘the U.S. military’s largest pre-positioning base outside of the continental United States’ (Roberts, D. (2011). ‘Behind Qatar’s intervention in Libya’, *Foreign Affairs*, 28 Sept. 2011.

¹⁰⁰ More details on WikiLeaks cables and *Aljazeera* in section 6.9

More recently, there have been examples of *Aljazeera* programming favourable to the Muslim Brothers and Hamas movements – both of which are close allies of the Qatari regime (Kraidy, 2007; Zayani & Sahraoui 2007). These pressures have contributed to friction between some members of *Aljazeera*'s editorial board and staff members, some of whom felt that their editorial autonomy has been shrinking (personal communication, n.d).¹⁰¹ For example, several *Aljazeera* presenters left the new channel after the Arab Spring, noting disagreement with the Network's 'politicised' editorial line that favoured the Qatari agenda (Almasry Alyoum, 2013a).

This political slant has led to harsh consequences. Miles narrates the many diplomatic repercussions resulting from *Aljazeera*'s controversial coverage, including Libya's permanent withdrawal of its ambassador (Miles, 2005, pp. 56–58). During its early years, *Aljazeera*'s bureaux in Afghanistan and Iraq were bombed. Moreover, prior to the Arab Spring uprisings, *Aljazeera*'s coverage was banned in Morocco, Tunisia, Algeria, Bahrain, and Kuwait. Some regarded *Aljazeera*'s approach challenging the ruling regimes as the cause; others blamed it for its bias when covering issues biased towards Qatar's foreign policy (Miles, 2005; Zayani, 2008). In fact, *Aljazeera*'s coverage of political events in the region has often become part of the news, 'inextricably linked with ... tumultuous events in the Middle East' (Miles, 2005, p. 12).

6.5.3 Newsroom Composition

In 2010, the *Aljazeera* Net newsroom consisted of nearly 90 staff members, and since then had grown marginally to over 100 staff by 2013. This number included eight key deputies to the editor-in-chief of the portal, who primarily supervised the newsroom over different shifts, and approved final content before publishing. In addition, there are over 18 journalists (from the news, economy, and sports sections) especially dedicated to

¹⁰¹ A no date has been inscribed to ensure anonymity of staff member.

Aljazeera Net newsroom, together with assigned multimedia, social media, and ‘user feedback’ teams. The portal’s technical support is primarily delivered by *iHorizon*, an outsourced service provider which is in charge of the portal’s development, including its publishing system.

iHorizon primarily works remotely, but has a systems analyst, project coordinator, based in the *Aljazeera* Net newsroom. In addition to *iHorizon*, the wider IT department, the New Media Department, and the video coordinators, which are based in a separate building, occasionally assist the portal in a number of ways, although they support the wider Network’s websites as well. The latter help pump new innovative ideas related to social media, mobile or novel technologies, while the IT department works on infrastructure and security issues pertaining to the Arabic portal. As Figure 23 illustrates, the changes introduced to the newsroom include the assignment of an output manager (or executive producer) to each of the key sections of the portal. The sections include the news desk; the interactive section (which includes social media, polls, and user feedback); the online programs section (which includes the multimedia team); and the business and services section (which is in charge of advertising and marketing). Only one of the four output managers is in charge of the portal’s development, and is constantly in communication with *iHorizon* and the multimedia design team. In a way, he is the hub that links the editorial side with front-end and back-end developments, and integrates changes to the publishing systems and design changes with the newsroom workflows. Another output manager coordinates the content coming from *Aljazeera* Net dedicated correspondents and other breaking news sources (such as *Aljazeera* news channels). A third manager deals with the commissioned content written by noted Arab writers and analysts.

Aljazeera Net Organizational Structure in 2013

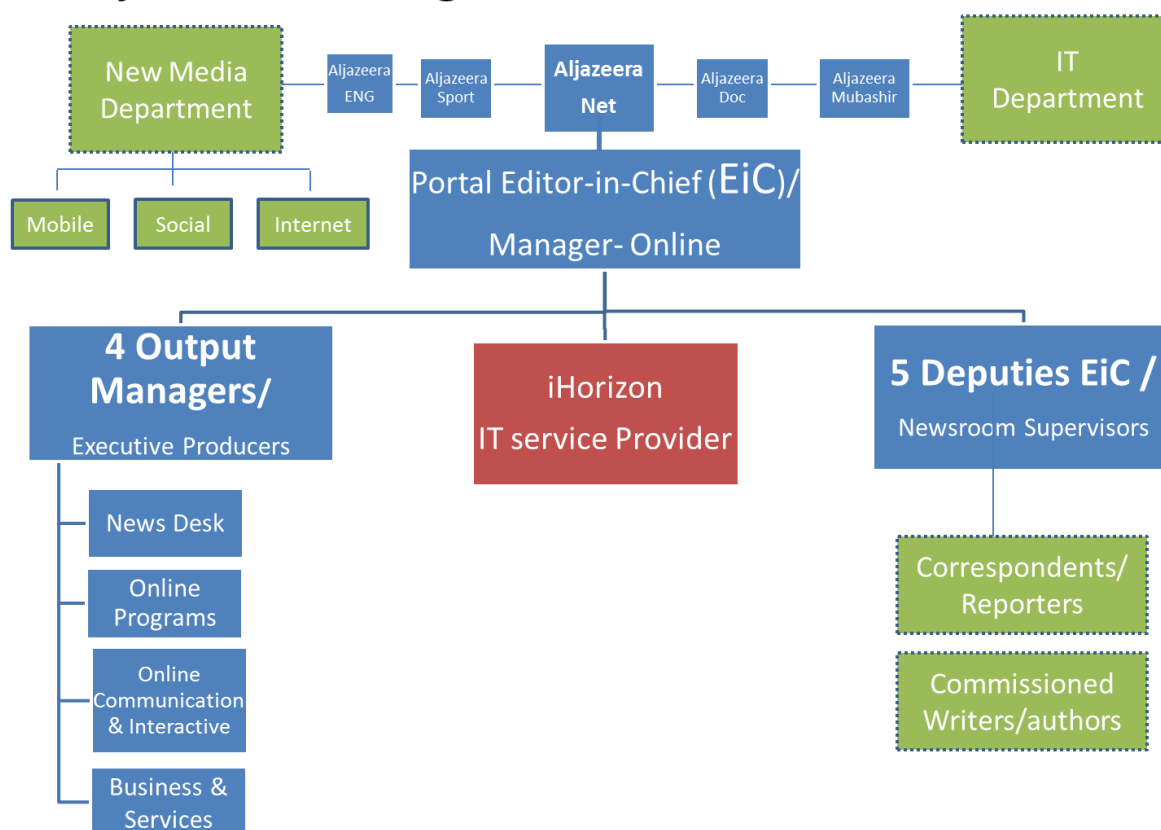


Figure 23: Aljazeera Net Newsroom Structure in 2013

During the field visits in 2010, the entire team of journalists working on the key content production consisted of men. There is an implicitly conservative interaction with women, who composed only eight out of the 85 staff in June 2010. Then, female staff primarily worked in junior roles – namely on the user feedback and social media teams – with the exception of one female, who was the output manager heading the online communication and interactive team. This supports earlier studies showing that women working for *Aljazeera* encounter limited opportunities for career advancement (Zayani & Sahraoui, 2007).

Although the general newsroom culture had a marked respect for women, its religiously conservative nature underpinned its gender imbalance. This is a clear contrast to the

Aljazeera English and Arabic Channels newsrooms which were far more gender balanced. The long shifts expected in the newsroom could be another factor behind the imbalance. One female trainee noted that ‘it is difficult’ to be a reporter or an editor in the newsroom, because it requires working a ten-hour shift, something that many working mothers cannot manage (Personal interview, 7 June 2010).

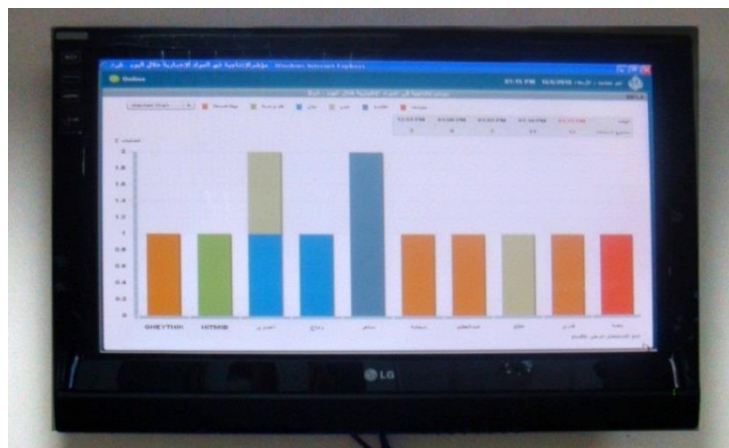


Picture 10: Both the multimedia team and the journalists are located Aljazeera Net.

The physical newsroom, like the team, is entirely independent (and separate) from the rest of the *Aljazeera* facilities that host the Sports, Documentary, English, and main Arabic *Aljazeera* news channels. Prior to 2010, the English online team was in the same newsroom as the Arabic, which was reported to have created more communication and synergies across the two portals (not to mention in the design). However, since the team has been moved to the heart of the English Channel newsroom, it too has been totally disconnected from the *Aljazeera* Net Arabic online team. In 2012, the newsroom was moved to a new building, although it remained separate from its English sister and the rest of the channels.

The online newsroom has the feel of an industrial news-making machine. The mood is serious, but also friendly. No drinks or food are allowed in the newsroom; there is a large cafeteria for quick breaks and socialising. In its vast shared space, each journalist works diligently to produce his stories, facing two screens: a TV plasma and a desktop computer screen. Over the course of the day, the clock is ticking for this news machine. Each staff member is expected to finish at least four stories per shift. A big plasma screen displays the number of news items produced per staff member, and is updated the minute they are uploaded. This contributes to implicit internal competition among the team.

Nothing is personalised in the newsroom. Desks are kept clear of any personal belongings (e.g., photos, calendars, etc.) so that the work space is clear for the next person on the shift. This gives a sense of professionalism and ‘on the go’ feel that suits the 24-hour news production cycle. Like the desk, the news articles are not personalised. The stories do not bear their author’s names and the journalists remain anonymous.



Picture 11 Journalists’ news production progress is closely monitored over the day¹⁰²

The atmosphere is conservative with a small mosque at the far corner of the extensively large floor, where prayer times are scrupulously observed and are the only breaks when

¹⁰² Aljazeera Net Newsroom. ©Nesrine Abdel-Sattar – June 2010

these strict rules are somewhat lax. The newsroom was predominantly staffed by Sunni Muslims, with only two Christians out of the 85 staff members in 2010.

6.6 Information Architecture: typology of site and design evolvement

Aljazeera.net is considered to be the first Arabic news website in the Arab World hosted by a media organisation. The inception of the website dates back to 1998, when it contained only the programme's airing schedule and some background information on *Aljazeera*. However, the website's first attempt to provide online news was in January 2001, when it introduced textual and graphical content of the latest news stories throughout the day. Since then, it has evolved rapidly with more multimedia features, digital services, and moves toward aggregating the content across different *Aljazeera* channels. Table 10 Typology of *Aljazeera* Net Key Multimedia Features in 2013 presents the key features of the portal, including recent major changes introduced in early 2013, illustrating its adoption of features common across major news sites worldwide.

Aljazeera is the only news broadcaster in the region to be using mobile video uploads on such a large scale. (Arab Media Outlook, 2013: 79)

Since its inception, the portal has experienced a gradual incremental, but metamorphic maturing of its design and content. Its design has undergone dramatic change, including four major structural engineering makeovers. Annex 7 compares how the website looked in February 2013 with its earlier versions in 2001.

Table 10 Typology of Aljazeera Net Key Multimedia Features in 2013

Multimedia Features	Examples
Breaking News features	Breaking news ticker Live stock exchange ticker
Multimedia Content Design	Main slider-pager (carousel) of main news Live streaming page of <i>Aljazeera</i> Arabic News Channel Text, videos, audios Web 3.0 customisation and localisation of news
Interactivity	News commenting feature Interactive maps, timelines, and infographics Integrated social media ‘share’ buttons on news articles Users’ social media integrated commenting (i.e., through signing in on FB, G+, Twitter, etc.) Polls, surveys Discussion forums
Social Media	<i>Aljazeera</i> ’s own social media accounts, including live streaming some segments on its YouTube channels. Live social media feeds widget (<i>Aljazeera</i> ’s own feeds)
Citizen Journalism and UGC	User registration Sharek (e.g., participate) page sharek.Aljazeera.net Portal for citizen journalists (unofficial) Aljazeerataalk.net Widget showing ‘readers’ picks’ on frontpage
Additional digital services on portal	Transcription service of some broadcast TV programmes Podcasting ‘Hotels-broadcasting- <i>Aljazeera</i> ’ database
Mobile Services	SMS and MMS news alert services Apple and Android tablets and smartphone applications Live streaming mobile TV service (with Live Station and Mobiclip)

6.7 Organisational Structure, Agency and Power

6.7.1 Key Actors of Innovation and Change Agents

There are several gates to cross for approval of any technical innovation in the *Aljazeera* Net newsroom. Often the first and most critical point of control remains, not among senior management – namely the editor-in-chief, the head of operations at *Aljazeera* and the board members – but in the hands of the deputy editor-in-chief and output manager – Saeed Alhamidy – who has responsibility for portal development on top of his existing

editorial tasks. Theoretically, ideas are processed through a committee of three: the iHorizon project coordinator, Alhamidy, and the marketing officer. Moreover, day-to-day suggestions and complaints from the staff are incorporated into a pool of ‘wish lists.’ All ideas are then passed on to Alhamidy. If the idea is successfully ‘sold’ to him, there is a strong likelihood that other members of the senior management team will accept it.

In his early fifties and experienced with the portal since its inception, Alhamidy is an avid follower of the latest technology, even though his background is primarily in traditional journalism. This equips him to bring both his practical and editorial expertise to bear when considering any novel technological change. In addition to being the first critical gatekeeper of any novel portal idea, he sometimes initiates changes. In short, the deputy editor-in-chief is the most strategic gatekeeper for any portal innovation vision. ‘If *Aljazeera* Net management is convinced by the idea, they would defend it with the senior management [at the Network’s level],’ said one technical staff member. (Personal interview, 8 June 2010).

Second to the deputy editor-in-chief are two change agents. The first is the in-house iHorizon project coordinator – a systems analyst whose primary responsibility is to develop the portal and its underlying content management system. Working together with the iHorizon team located outside *Aljazeera*, he manages all the main portals’ technical operations and troubleshooting. He has a youthful enthusiasm for technology – gained from his IT background and a close familiarity with the latest technological trends. The iHorizon project coordinator is a key generator of novel ideas. Because he is also physically located in the newsroom, and in close proximity to the editorial side, he is able to make decisions that merge content issues with technical innovations.

The second is the New Media Department, which is a team of eight young members – the oldest of whom is 31 years of age – and is divided into ‘Internet,’ ‘Social Media’ and ‘Mobile’ mini-groups. Although nearly half the team members come from a non-technology background – with either a bachelor’s or a master’s degree in business administration – they are constantly ‘connected’ to the latest social media, mobile, and Internet technology developments.

In a way, those two sets of agents are key to generating new multimedia ideas. Between Alhamidy, the head of the New Media Department and the iHorizon representative, there is a committee for the portal’s development (see above). The head of the New Media Department explains how the cycle of innovation works from vision to implementation and their approvals:

As the committee in charge of new ideas – Saeed, myself, and iHorizon – we think about issues regarding the addition of new services. Then, we sit and discuss them together, and see whether they suit the portal, and we present them to the editorial management. If we sense some welcoming to the idea, we start taking action. If the issue requires approval from higher management [e.g., beyond the Arabic portal], we send and ask: ‘guys, we are about to start project 1, 2, 3, 4 which will possibly cost such and such, and we have a budget estimation,’ or we send it to the Purchasing Department to provide feedback on whether it is suitable for the budget or not. If we get approvals from all those departments, it makes a big difference. (Personal interview, Marketing Officer, 14 June 2010)

Despite the centrality of these key actors, the approval of senior management is critical if any idea is to be implemented. Once an idea receives initial approval, a feasibility study and plan are devised and presented to senior management for final ‘buy-in’. One senior editor explains how the change of management’s perception of the salience of the Arabic portal impacted its development:

To be honest, the interest of the management and the board members in the Internet in the past was not very high; only in the last two years has [the Internet received] more attention; although the TV channel is still more central to the decision maker’s [priorities], because it impacts a larger public audience. But there is a growing interest in the Internet [among senior management] and in investing in the portal. We are talking about projects for technological

developments of around 5 to 6 million riyals (approx. US \$2 million). (Personal interview, Deputy Editor-in-Chief, 16 June 2010)

Interviews noted that there has always been a gap between the visions of an enthusiastic technical staff and the conceptions of the senior decision makers about how the portal should look.

There are many ideas, but in the end, you get shocked with them telling you: ‘Our editorial line is in line to suit our users; we do not want to deviate from this line.’ At times, we tell them the vision is not to get out of the line, but to offer something new; it should not be just a page and colours and text. They would say, ‘Who uses this style?’ We tell them, ‘You are the first ones, you are the pioneers.’ But they say no; sometimes some people do not like to take risks. But not always... On average out of 10, we could have seven ideas that can get the green light. (Personal interview, 8 June 2010).

6.7.2 Impact of Size on Innovation

Large news organisations come with large budgets; *Aljazeera* is no exception. There are tens of millions of riyals in annual budgets¹⁰³ that are invested every year in the technological infrastructure, software development, satellite equipment, fibre-optics, backup technologies and the security and safeguarding of the Network’s massive operations worldwide. There are also lucrative budgets allocated for the training centre. When asked whether finances are a factor in determining the success of competing ideas, Elhamidy calmly answered: ‘Budgets are never a problem. The ceiling is open.’ The Network’s reliance on the wealth of the Qatari state makes these budgets stable, despite ups and downs in advertising revenues.

The large budgets do not mean unlimited abundance; and the teams are required to come up with a clear budget before submitting any idea to management. Moreover, priority is often given to building on existing third-party services or open-sourced technology before deciding on developing a technology from scratch in-house. ‘It is not always best to do

¹⁰³ *Aljazeera* staff sufficed to broadly mention ‘tens of millions,’ without specifying the exact annual budget of IT development. It was very difficult to get an accurate figure from staff members; this was often handled with much secrecy.

everything ourselves. At times, we leave some stuff to third party companies, say those known in mobile application development. We can benefit from them,' said the systems analyst. (Personal interview, R.E, 2 March 2013). Still, a multi-million dollar idea might be approved, while a free idea might not. Section 6.8.2 discusses in detail the factors shaping innovation decisions.

At the same time, being a large organisation has a downside when it comes to innovation. The centralisation of management can make the adoption and final implementation of an idea a longer process. The Network's decision-making process also has a clear hierarchal structure that can slow the introduction of new ideas. As one of the senior technical teams put it, 'In big organisations like this, changing things and moving to new ideas is always difficult. I could introduce an idea, but for this idea to become a reality and get implemented, it would take a lot of time.' (Personal interview, iHorizon representative, 2 March 2013). The head of the New Media Department echoes this challenge:

... There is a lot of operational inertia. If you are going to say we need to introduce this product, and you are going to need to change your workflow this way, you have hundreds of people going through a rota, and they are very set in the way they do things. It is difficult to change. And that's probably generally the biggest hurdle, and it is not unique to *Aljazeera*, I think this is an issue for news organisations. (Personal interview, Head of New Media Department, 14 June 2010)

This inertia is illustrated when comparing the English and Arabic portals and the way they adopt multimedia innovations. The English newsroom, which consists of only 20 staff members, is seen by the new media and technical staff as far more 'fast-paced' in introducing design changes than its Arabic sister. Its portal also contains far more multimedia content (including videos, visuals, etc.) than the Arabic portal. One senior official explains how the 'big machine' size of the Arabic portal affects the decisions to adopt new ideas:

For [*Aljazeera*] English [portal] for example, they are a smaller team. They have less content, but for them the inertia is less. You know. For the Arabic, if we come with an idea and we present it, it is a huge deal [for management] to change anything, because they are such a big machine now. So [it is not as easy] for them [the Arabic] to change anything... They [the Arabic portal] are very set in their ways and in what they do they are the best, because they don't have much competition out there. [In contrast,] the English is relatively nimble; they have a small team, and a smaller footprint compared to the other English websites worldwide. So the English [portal] will try a new idea; they are more courageous in that way. And I think that's very natural because if you are a huge machine you are going to be very slow. (Personal interview, New Media Department Head, 14 June 2010)

Being a large organisation also means that potential synergies across newsrooms are often missed. As noted earlier, each of *Aljazeera*'s departments – such as *Aljazeera Sports*, *Aljazeera News*, *Aljazeera Documentary*, *Aljazeera English* and *Aljazeera Training Centre* – has its own business owner who makes the decisions about what goes onto its portal. Each department has different dynamics of managing their portal, even of designing it. For instance, the branding and layout design of these portals are different. There were attempts to develop style guidelines with minimum branding standards for all portals in 2013; however, they remained unimplemented. This decentralisation could encourage innovation, but the iHorizon project coordinator explains the complexity of *Aljazeera* as a 'network':

You are talking about a 'Network,' not just a [TV] channel. It is hard to deal with it as only the portal, or the channel alone, but you should deal with it as a network, and everything in it has its own business owner, and each business owner differs [in their views]. From an IT standpoint, this is totally different from the Arabic portal; and is totally different from iHorizon as a company. (Personal interview, iHorizon Coordinator, 13 June 2010)

6.7.3 Cultural Influences and Newsroom Segregation: *Aljazeera* English and

Arabic

One of the striking features of the *Aljazeera* buildings is the strong contrast and segregation between the Arabic (*Aljazeera Net*) and the English online newsroom cultures. The Arabic online newsroom functions entirely in the Arabic language and often

only by Arabic speakers – representing the 22 Arab countries. It has a conservative Islamic culture, as described above. This is reflected both in their faithful observing of religious practices, and their general Pro-Islamist – flavoured with Pan-Arabism – political ideology.

In contrast, the English satellite channel and its online portal (located in the heart of the newsroom studio) are in a building separated from *Aljazeera* Net. Its newsrooms host a mix of Arab and international staff, albeit with a predominantly American and British presence. Consequently, its working environment is more liberal and multinational. These cultural and geographical differences reflect on the dynamics of innovation in a number of ways.

First, the cultural differences reflect on the communications between the two portals' teams. Although not explicitly expressed, the interviews suggested that the interpersonal and cultural tension between the conservative Arabic and the liberal English newsrooms might explain the lack of synergies in harmonizing the two portals. Moreover, a similar cultural difference was observed between the New Media Department (NMD), which is headed by a Pakistani British manager and the more conservative and Pan-Arabic *Aljazeera* Net. This is linked to sometimes frail interactions between the two teams, despite some strong collaboration between the NMD and the English portal team – the latter also headed by a Pakistani manager.

A case in point is that the IT department applications development section develops mobile and tablet applications for the English portal and the *Aljazeera* sites (such as *Aljazeera* Sport, *Aljazeera* Documentary and *Aljazeera* Live), albeit not for *Aljazeera* Net. When asked why the interaction between the IT department and the Arabic portal is minimal, a senior technical officer smiled, saying:

Honestly, this is not related to any technical aspects [laughs]... there are some issues that are not logical. It is possible that the managers do not get along with each other. The business owner [e.g., decision makers at the Arabic portal] feels more comfortable working with iHorizon on this issue, [both] as a product and a service. It works like this, if I have a service, I go and present to *Aljazeera Net*, and tell them let's do it as plugins to iHorizon, give it to them to operate. If the business owner sees it as a good idea, they take it. Ideally, all portals at A should be consistent, but in practice it is not happening. (Personal interview, R.A, 2 March 2013)

Secondly, in addition to cultural and interpersonal differences, the geography of the newsrooms plays a role in the dynamics of their interactions. Both the New Media Department and the IT Department are located in the English satellite news channel building, where the English portal is centred (see Picture 12). The physical proximity of the English Channel, the English portal, and the New Media Department helps to enable communication. For instance, more broadcast content from the English Channel is shared on the English portal than is the case with Arabic channel and *Aljazeera Net*. This could be explained by the former being adjacent to the English live studio. Meanwhile, staff reports that, in the early days of *Aljazeera's* English portal (before the English Channel was created), when both the Arabic and English online newsrooms were in one location, there was more innovation across the two portals (Personal interview, Marketing Officer, 10 June 2010).



Picture 12 Aljazeera English portal team inside the English Channel (right side)

Thirdly, different conceptions of audiences for each portal were a factor shaping, not only the type and format of content presented on these portals, but also which technological features to adopt. The English portal's audiences, for instance, are perceived to have faster links and better access to Internet technologies; hence, the higher presence of visuals and multimedia content on the portal's front page compared to the Arabic portal. Similarly, the integration of TV content in the Arabic portal was slow, despite the introduction of a 'textual' version of some of the TV programmes – a feature absent in the English portal. The technical and future media manager at the IT Department explains how these conceptions of users' needs caused videos to be picked up differently in the Arabic and the English portals:

Both [the English and Arabic news] channels, and consequently both websites, have different target audiences and editorial priorities. Obviously operationally, you have different departments and different teams, it is not centralised. So it is a natural development. Each [portal] works based on its history and how they understand their viewers. If you sit with the colleagues in *Aljazeera* Arabic [e.g., *Aljazeera* Net], they know their audiences very well, and several times when I give them ideas from the English website that could be used, they would tell me: 'No, that would not work for our audience, it is not the same mentality, you are talking about another group of people with different needs.' I think they are right. On the other hand, technically speaking, they also have different technology that allows different online tools. (Personal interview, Y.M., 15 June 2010)

Finally, the IT Department is responsible organisationally for the infrastructure, the bandwidth, the Content Delivery Network (CDN)¹⁰⁴ and the *Aljazeera* wider broadcasting systems. However, in effect, because the department was initiated long after the two portals were launched, convergence has not 'always worked across portals.' 'Some issues have been more difficult than others to integrate across the platforms,' the IT Department manager said. (Personal interview, 15 June 2010).

¹⁰⁴ The Content Delivery Network (CDN), also known as content distribute network, is a large distributed system of servers deployed to stream media and distribute content to users via the Internet. (Wikipedia)

6.8 Routines and Practices

6.8.1 The Online News Cycle: Patterns and Processes

On a typical news day, the online newsroom produces from 100 to 140 online news items, ranging from articles and analyses to feature stories. In addition, the multimedia team frequently produces flash animated and interactive information graphics on historical or political topics. A flash presentation, however, could take up to a few weeks before it is published, depending on the depth of analysis.

Illustrated in Figure 24 is an overview of the news cycle. It shows how the news is processed from the moment raw content is gathered – from *Aljazeera* news channels, *Aljazeera* Net's own correspondents, news agencies (subscribed to fee-based breaking news and photo databases), and the commissioned writers (often famous political analysts and columnists in Arabic print media) – to the final written, designed, and displayed content. The news workflow starts with a morning stand-up editorial meeting at 9:00 a.m., which often lasts for half an hour. This is when the newsroom supervisor of that shift, together with the editorial team, discusses the key ideas and news pitches for the day, and distributes tasks to journalists (often verbally or by email after the meeting).

While the reporters and editors work on the textual content, the multimedia team works on the selection, archiving, and indexing of videos and pictures related to the same news stories. News production often reaches a peak around noon. Additionally, polls, users' opinion forums, and other interactive features are orchestrated by a team of shrewd journalists who monitor and moderate users' commentary on the news articles and feedback to the newsroom.

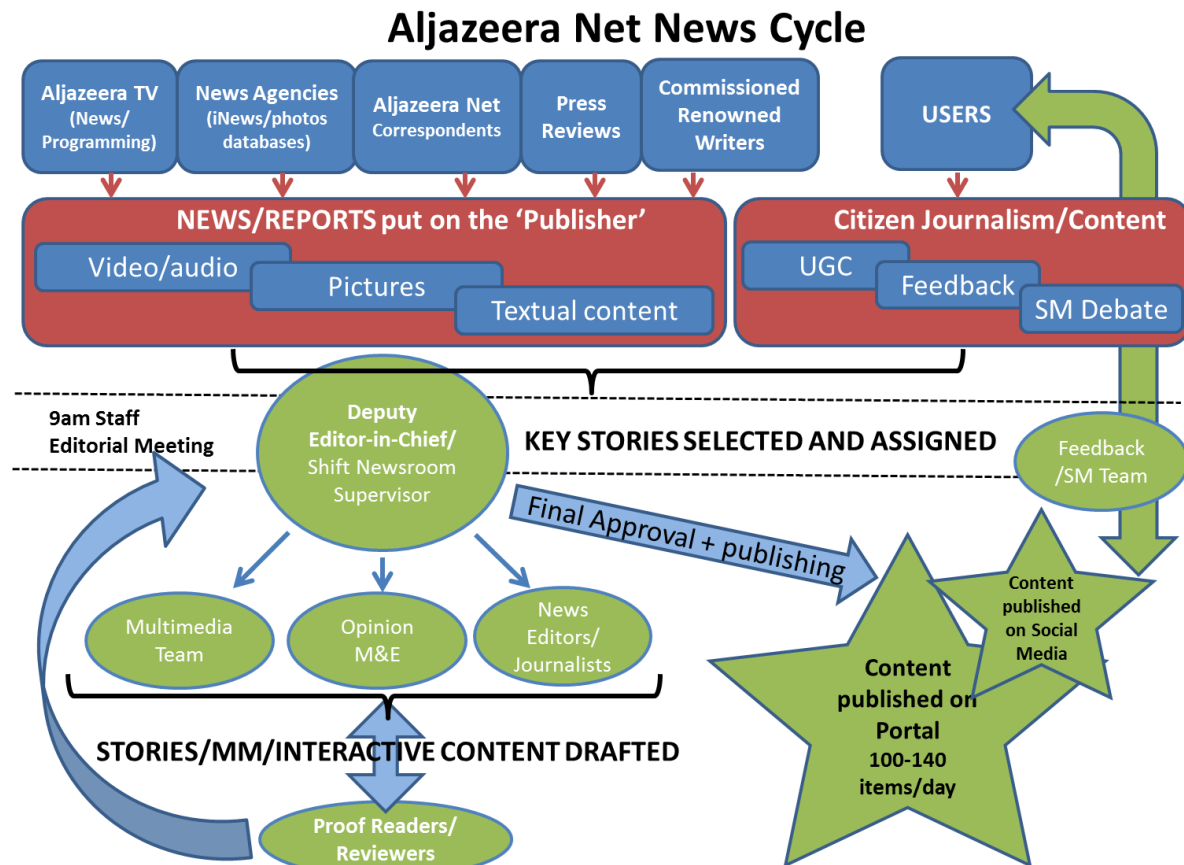


Figure 24: Aljazeera Net online news cycle

A team of junior staff are also dedicated to monitoring and processing users' emails, complaints, and suggestions; another is dedicated to handling the reproduction and distribution of news articles on different social media and mobile platforms.

A number of systems with multifarious publishing authorities facilitate the workflow. The 'publisher' web-based news management system (NMS), which has been used since 2010, and was upgraded in 2013, facilitated the workflow and editorial approvals from the point the news was gathered and drafted until it was published on the portal. It also enabled managing users' interactions. In addition, a number of servers and databases were deployed to streamline, transfer, and reproduce the TV broadcast content (whether programmes or news) into the portal. Specialised technology also allowed a dedicated

small portal team stationed at the News Channel to streamline the broadcasting content and produce ready-made video and audio clips for the portal.

Interestingly, often telephone or face-to-face communications were the faster and more direct means of coordinating content flow across the teams (even within the same building), although other tools of communications – such as live chat and email, are frequently used.

6.8.2 Editorial Choice Points and Strategies

A number of elements shapes implementation of the portal's novel ideas. *Aljazeera* Net adopted the 'Wish List' system – a web-based application listing staff ideas and suggestions. All of the portal management team – mainly the editor-in-chief, the deputy editors, and the iHorizon Project Coordinator – have access to it. Moreover, communications on emerging problems or needs are exchanged through emails, and are regularly reviewed by one of the deputies. However, prioritising which ideas are approved for implementation is not straightforward.

6.8.2.1 Innovation Choices: Filling a Gap

Innovation has often been a response to needs at *Aljazeera* Net. Problems that hinder the editorial workflow and require fixing are a typical case. Noting a traffic 'drop' in a particular page, for example, could impel brainstorming ideas on design or other indexing technological changes to boost traffic. The marketing officer explains: 'We try to meet the portal needs, or address areas of shortage.' (Personal interview, M.H., 6 June 2010). Another case in point was the Content Management System, which was added to the development pipeline to fix its technical bugs.

In contrast, some innovation choices have been made based on an editorial hunch driven by political news events in the region, rather than long-standing tests and sophisticated

feasibility studies. A case in point was the news carousel design to incorporate six main stories. When asked for the rationale behind the number, a senior editor replied:

In the past, we used to have the Palestinian news as the only main headline. The issue of 9/11 attacks then competed with the Palestinian news. Then the Afghanistan issue, and Al-Qaida news, which also started to compete for the main headlines. So we have had three key stories. Then came the Iraq war which started to dominate the main headlines. All these conflicts and events are continuous and dominating the main headlines. They can calm down for a while, but will continue [...] So when we started thinking about the carousel we said we are talking about at least four main news topics [...] so let's put the first four hot news, then two analysis articles, these columns are very popular, people like to read them... This makes it six. (Personal interview, S.H., 16 June 2010)

6.8.2.2 Other Factors Driving Innovation

There are a number of influencers that shape innovation priorities in the online newsroom. One important factor that determines implementation priorities is conceptions about users' needs. Competition and a keenness to attract more traffic to the portal and for longer periods often compel the newsroom to give priority to users. Thus, providing better services to users takes precedence over other internal newsroom needs. This was noticeable during high-audience events such as the Football World Cup in June 2010. In preparation for the event, the Marketing Department, together with the IT Department, decided to invest in a technological flash-designed service that enabled real-time interactive updates of the matches. The service, bought from AFP, was promoted on the front page and on the sports page (Personal interview, M.H., 6 June 2010).

In addition to audience-driven factors, there are often administrative issues such as budgets, management visions, and finding the right service provider, in addition to affordances of time resources, that all shape the adoption of ideas. Elhamidi sums up some of these factors:

Look, honestly, I personally have a wish list of 33 items I need to address for the portal. All of these are issues related to facilitating the services, or in new media. Some of these would require at least two years before I can implement in the work plan. We start prioritizing. Two

things we consider: either the issue comes from the senior management as an urgent request, so I stop everything and work on this idea; that becomes the main priority. The second priority comes as a result that some things require urgent development for reasons related to the competitiveness with other portals. Third in priority is internal complaints that could result in impeding the work. Because in the end, the work is not going to be impeded, but addressing these issues would be better to speed up the workflow and facilitate the work. (Personal interview, S.H., 16 June 2010)

6.8.2.3 Planning vs. Crisis Innovation

The New Media Department team, unlike *Aljazeera* Net, is less stressed by day-to-day editorial decisions and problems, and more focused on innovation. During political upheavals and related newsroom crises, the team brings novel ideas and is allowed to experiment. A case in point was the Gaza flotilla raid on 31 May 2010, in which *Aljazeera* reporters, together with activists boarding a Turkish humanitarian aid ship, were attacked by Israeli military forces.¹⁰⁵ The New Media Department head narrates how the crisis ushered in the use of Twitter at *Aljazeera*:

People were discussing this event as it was happening on Facebook and Twitter... but they were not quoting news sources because there were no news sources available on these platforms at that time... there were a lot of emotions and rhetoric, but there were no actual facts. So we found this gap... we made a Twitter account called *Aljazeera Gaza* so that all the news coming from within Gaza, Jerusalem, and the West Bank was published. We discussed the idea internally, then proposed it to the newsroom. Once we got the buy-in from management, we figured out the plan of how we were going to do it, what pieces we needed, [who were] the people we needed to train, and we just deployed it. We had generic Twitter accounts for *Aljazeera* before, but this one was particularly for Gaza. (Personal interview, NMD Head, 14 June 2010)

Interviews suggested that a younger team of social media enthusiasts were driving social media innovation within the wider *Aljazeera*. The crisis buttressed the momentum behind innovation for that team, possibly since it was not under the editorial pressures of the newsrooms such as *Aljazeera* Net. It had more room for innovation.

¹⁰⁵ For more details check https://en.wikipedia.org/wiki/Gaza_flotilla_raid

Political events such as these often become an opportunity to experiment with novel technological projects, despite the department's three-year strategy pipelining over 30 projects. For instance, the team decided to use an existing Google technology on *Aljazeera* YouTube channels, as well as the ushahidi users' reporting tool, only during the Gaza Flotilla in 2010, despite knowing of those tools beforehand. Mohamed Basheer, one young staff member at the NMD, explained how adoption of another technological artifact came about:

Without being asked by anyone, we came up with a new portal that monitors anything that mentions Flotilla on Twitter or Facebook and put it on maps. On the same day, we tried a new Google system that allows people to express their opinions – Google Moderator. We put it on our YouTube channel to allow people to suggest ideas, share opinions, and vote for best ideas. All these tools are already there, but *Aljazeera* might not need them [all the time]. Some things can be beneficial at certain times, but not necessarily all year [long]. So these small projects could be for a day or a few days that can serve for an event, then we can use them again later when we need them. (Personal interview, M. B., New Media Department, 14 June 2010)

Mohamed's comment shows that adoption choices are often shaped by political events. New ideas, and more importantly decisions to tinker with them, are often stimulated by politically important news events.

6.9 *Aljazeera* Coverage of the 25 January Revolution in Egypt¹⁰⁶

A week before the 25 January uprising and shortly after Tunisians toppled President Zin Elabidin, *Aljazeera* hosted its 'Online Journalism and Freedom of Opinion' forum.¹⁰⁷ The forum, which has taken place annually since 2005, attracted Arab bloggers, media experts, and citizen journalists. Among this group was the administrator of the 'Khaled Saeed' Facebook group – Wael Ghoneim – one of the Internet activists who played a key

¹⁰⁶ This embedded case studies is based primarily on interviews conducted by the author with staff, but also draws from selected background material that is cited where relevant.

¹⁰⁷ The forum took place on 19-20 Jan 2011. For more details please check <http://goo.gl/GSd32> [Last accessed 12 Jan 2012]

role during the uprising. Although Ghoneim's presence was only in his capacity as Google's MENA marketing head at that time, it proved vital during the following days.

From the beginning of the Egyptian uprising, both *Aljazeera* news channels and their portals faced heavy attacks. At 2:00 p.m. on 31 January 2011, in Cairo, Egyptian officials visited *Aljazeera's* bureau, recalled the network's license to broadcast, cancelled the accreditation of the channel's journalists and asked its production staff to pack up their equipment. Both the *Aljazeera* Arabic and English channels had been taken off the air. Meanwhile, the Arabic portal advertising banner was hacked for a few hours, as *Aljazeera* technical team reported consistent online attempts to bring the portal down.

By September 2011, *Aljazeera's* general director – WaddaH Khanfar – stepped down amid WikiLeaks records claiming Qatar was using the Arabic news channel as a bargaining chip in foreign policy negotiations by adapting its coverage to suit other foreign leaders (*Aljazeera* English Channel, 2011; Booth, 2010). The Wikileaks cable, originally written in 2005, documented communications between the former US Ambassador to Qatar - Chase Untermeyer - and WaddaH Khanfar regarding curbing the *Aljazeera's* coverage, particularly with regards to the Arabic website (Wikileaks Cable Ref 05DOHA1765, Last accessed 12 September 2012).

Table 11 Excerpt of the Wikileaks Cable 05DOHA1765.

Viewing cable 05DOHA1765, PAO MEETING WITH AL JAZEERA MANAGING DIRECTOR. Created: 2005-10-20 13:25. Classification: Confidential. Origin: Embassy of Qatar.
Para 1. (C) Summary: PAO met 10/19 with Al Jazeera Managing Director Wadah Khanfar to discuss the latest DIA report on Al Jazeera and disturbing Al Jazeera website content. Khanfar is preparing a written response to the DIA points from July, August and September which should be available during the coming week. Khanfar said the most recent website piece of concern to the USG has been toned down and that he would have it removed over the subsequent two or three days. End summary. Source: Wikileaks cable 05DOHA1765 [http://wikileaks.org/cable/2005/10/05DOHA1765.html#par1]

Over the following two years, as the uprisings spread in Libya, Yemen, and Syria, the channel continued to face jamming of its broadcasting frequencies on *Nile Sat*, *Arab Sat*, and *Hot Bird* satellites and its portal continued to face cyber hacking attacks. *Aljazeera's* popularity was also affected by the events, as its coverage polarised audiences and made the station more politically controversial. Its viewership declined in Egypt and other Arab countries, and its portal traffic fell behind those of its rivals (Google Analytics, *Aljazeera* Jan.-Dec. 2012).

This sub-case examines how the Egyptian revolution shaped innovation at *Aljazeera* Net. It especially looks at the dynamics of handling the political crisis, looking at the challenges posed within the organisation as a result of its coverage and how they impacted innovation decisions at the *Aljazeera* Net.

6.9.1 Taking Sides in the Political Conflict during the Arab Spring

Before delving into how the Egyptian uprising shaped innovation within *Aljazeera* Net, it is important to highlight the political role *Aljazeera* played in the Arab Uprising, particularly in Egypt. Both are important in situating the innovation process within the political context surrounding *Aljazeera's* operations.

From 29 January 2011 until the resignation of Mubarak on 11 February 2011, a giant screen broadcasting only the *Aljazeera* Arabic news channel was centred in Tahrir Square. On it and across all homes watching *Aljazeera*, TV shots of the cries of demonstrators: الشعب يريد اسقاط النظام – or ‘The People Want to Overthrow the Regime’ – were repeatedly broadcast across the 24-hour news channel. ‘We were supporting the revolution, and were very excited about it,’ whispered one of the online newsroom staff in an informal chat the following summer. ‘We wanted the revolution in Egypt to win, and we knew that Egypt was the vital country,’ he added.

From day one, it was clear that *Aljazeera* was supporting the Egyptian 25 January 2011 uprising. The first channel that coined the word ‘revolution,’ instead of ‘uprising’ or ‘demonstration’ was *Aljazeera*. Informal discussions with the editorial team also revealed that the newsroom staff was ‘for the Egyptian revolution’ and supporting the idea of toppling the Mubarak regime, which was seen as hindering the resolution of the Palestinian-Israeli conflict (Personal interview, March 2012).

Despite *Aljazeera*’s staunch support of the uprisings in Tunisia, Libya, Syria, and Jordan, the Network downplayed similar uprisings in Gulf countries, including Bahrain. Informal talks with staff alluded to the fact that there were ‘soft calls’ to tone down any revolution in Bahrain, but the source wished to remain anonymous. However, a qualitative overview of the portal’s coverage of uprising news during 2011 supports this claim.

As a result, while *Aljazeera*’s coverage of the Arab Spring won growing audiences in the West, it faced huge controversies in the Arab World. Discontent over the Network’s biased coverage grew, especially after what some considered *Aljazeera* turning a blind eye to other Gulf revolutions, such as in Bahrain. In Egypt, since the early days of the uprising, the news channel faced tremendous criticism, both from the state media and the many revolution sceptics. Moreover, antagonism against the Network was fuelled by conspiracy theorists, who increasingly blamed Hamas militants, Qatar, Israel, and the USA for the 28 January ‘camel battle’ and the escape of several Hamas militants from Egyptian prisons. One result was that the Arabic Channel’s viewership lost nearly one third of its share and its portal faced continuous drops over the following two years.

While the Arabic portal’s traffic plummeted, the English sister’s viewership spiralled to even surpass the former. A longitudinal analysis reveals that, despite spikes during the

uprisings peaks, overall the Arabic portal traffic had dramatically declined (see Figure 25).

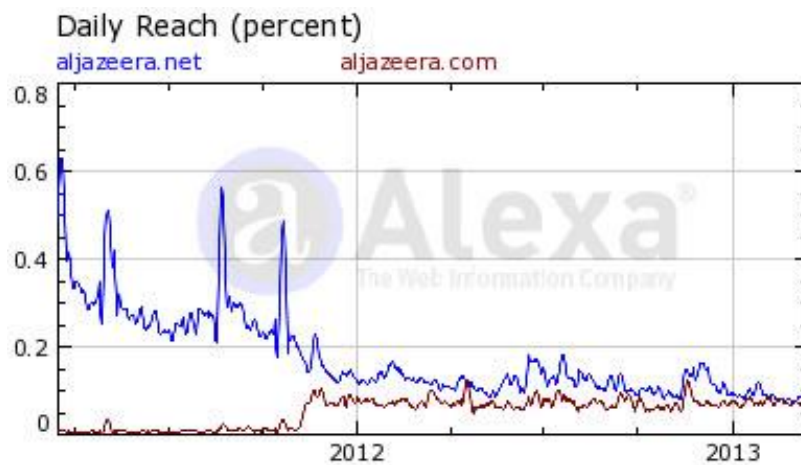


Figure 25: Since 2011, *Aljazeera.net* traffic has dramatically dropped, while the English *Aljazeera.com* witnessed steady increase¹⁰⁸.

At the same time, the amount of design changes that took place on *Aljazeera* Net had increased dramatically since the Egyptian revolution 2011 (see Picture 14). This poses a series of critical questions over whether the underlying reasons behind that drop were fundamentally political, rather than technological, and the extent to which political events and innovation decisions shaped each other. While some interviews were suggestive of this connection, and the timing underpins the potential political significance, the interviews and field research leave this question open to further research.

6.9.2 Defying the State Crackdown and Internet Blocks

The struggle of the online newsroom and the portal during the uprising began with the difficulty of receiving content from the wider *Aljazeera* Network. The content of the TV channel's reports supports the portal, especially with audio-visual content.

¹⁰⁸ Source: Alexa, March 2013 [last accessed 1 March 2013]

Yet, Egypt's Minister of Information at the time announced banning *Aljazeera* coverage, only five days after the uprising sparked. The state withdrew the news organisation's licence, revoked its reporters' press credentials and detained seven of its reporters (*Aljazeera.net*, 30 January 2011). On the same day, *Aljazeera*'s Cairo bureau was raided by Egyptian security officers, whom *Aljazeera* reported to be 'pro-government thugs' (*The Guardian*, 4 February 2011).¹⁰⁹ Moreover, the news channel's transmission frequencies on the state-owned Nile Satellite were jammed (*Aljazeera Website*, 2011a) (*ibid*).

Consequently, *Aljazeera* channels had to rely on a number of undercover 'cells' – namely mini-crews consisting of one or two journalists reporting and transmitting events using small portable equipment such as satellite phones. As one technical staff member explains, this influenced *Aljazeera Net*'s own content:

Aljazeera Net's source of news is mainly [from] the Channel and the news agencies [...] The news would often come to the Channel not the portal. For the portal, we would receive [news] through the Channel or the reporters there through 'Thurayya'¹¹⁰ for example and communication tools like that; but after a while even those were cut. (Personal interview, 2 March 2012)

The Internet shut down on the eve of 28 January 2011 exacerbated the situation further. *Aljazeera Egypt*'s TV crew and its material were cut off the headquarters in Doha. Although the crew was still able to transmit audio-visual content through satellite communications, Internet blocking made written news reports from Egypt unreachable by the Doha office. 'The main challenge was to send the news and to communicate with the teams [of journalists] there,' emphasised a senior member at *Aljazeera Net* (Personal interview, 2 March 2013). In addition, while *Aljazeera News Channels* continued to

¹⁰⁹ The Guardian website <http://goo.gl/bycto> 4 February 2011 [Last accessed, 12 Jan 2012]

¹¹⁰ *Thurayya* is a United Emirates telecommunications company that uses innovative mobile satellite solutions and comprehensive satellite networks in remote areas; and which work focuses on EU and MENA regions.

broadcast by changing their transmission frequencies, the portal had a greater challenge when the Internet was unplugged. One IT person explained the problem and how they attempted to overcome it:

... for us as *Aljazeera* Net, the most important thing was to highlight the Egyptian news on the portal during that period, especially that we had a dedicated page on Egypt... the idea was ‘what can we do to overcome the Internet blockage?’ The key aim was to [allow] people to see the portal, rather than interact with it. To send [content to the portal] was the second part. But we knew that this part needed capacities that might not be available there [in Egypt] not because of us, but for all people because of the Internet problem. We even tried to collaborate with Google and Microsoft to see how we could make something that could connect the portal to Egypt, and what we could do to enable people to participate on the portal. But all these [ideas] can be discussed more in the research field rather than in real-life practical implementation. We tried, but we could not find anything in that period...

Consequently, when all connections to Egypt failed, the *Aljazeera* team resorted to more primitive but effective ways of receiving content, as the iHorizon person shares:

It was very primitive manual methods. For instance, if someone had a picture or videos, they would send in a USB flash memory with someone going or traveling, this was the main way. There was no other way we could do it at the time. And it was not just for us; generally this is how all the crews managed. (Personal interview, 2 March 2012)

In addition to the old manual methods of transferring content from activists and journalists, the portal team worked with the wider *Aljazeera* IT team to find alternative technical solutions, but they were seldom successful. As a senior system analyst describes, the unexpected crackdown provided little time for sophisticated technical solutions:

There were a few ways [we used]. During that period, we did a lot of searching on [how to access]. Google did something nice, which was communicating through the [landline] phones, because they did not cut the landlines. It is like the tweet-to-phone. So we tried to do something similar through the telephone so that people could send or receive the news through the phone. At the same time, there was a project that [allowed] uploading some small amount of material even with cutting the Internet. We wanted anything we could get and use, not necessarily video. The problem was that the landline was used as a dial-up for Internet connection. But this idea was not successful. We couldn’t do it honestly. There was another way, people there used transmission methods from Egypt to the nearest [telecommunication] network, and from these networks we would receive this material. But also, this was difficult

because of the speed of events during that period. It was very difficult to develop [new] things, but it gave us some experience to find [future] solutions. (Personal interview, R.H, 2 March 2013)

6.9.3 Overcoming Portal Hacking

Related to the response to the uprising news crisis was defending the Arabic portal against hacking attempts. During the 18 days of the uprising, *Aljazeera* Net received heavy attacks on its portals that were, by and large, ineffective. But on 4 February 2011, a message replaced the advertising banner of *Aljazeera.net* reading ‘together to overthrow Egypt.’ It took the security team few hours to overcome it, as the news organisation announced on its Arabic portal later in the day:

Pirates [e.g., hackers] were able to penetrate briefly the advertising system in *Aljazeera* Net before our technicians were able to overcome the penetration... []. The offensive advertising was tied to materials distributed a few days ago in Cairo and allegedly attributed to WikiLeaks, to give the false impression that *Aljazeera* contributes to an extensive plan related to the context of what is happening in Egypt, a fact that was denied altogether by *Aljazeera* Network...[]. (*Aljazeera* Net portal, 4 Feb 2011)

iHorizon reported that the attacks were launched from IP addresses from Egypt, Sudan, or the United States (Personal interview, 3 March 2012). Director General of iHorizon Mohamed Eltekriti stated that the intensification of attacks at that time was due to *Aljazeera*’s coverage of the movement calling for Mubarak’s departure from Egypt, and that since the uprising [in Egypt], *Aljazeera*’s technical teams have managed to prevent tens of similar attacks from Egypt, Palestine, Israel, Hungary, and Morocco (*Aljazeera* Net Website, 4 February 2011, Para 10).

This was not the first time that *Aljazeera* portals faced hacking attempts for covering important Arab political events. For example, *Aljazeera* Net was hacked for ten days during the Iraq War (2003). Similarly, several attempts took place during *Aljazeera*’s coverage of Israel’s attack on Gaza (2008/2009), the Tunisian revolution, and revealing

important secret files related to the Palestinian-Israeli negotiations. It was also certainly not the last since the beginning of the Arab Spring in January 2011. Almost a year later, the *Aljazeera* site faced a similar attack by *Alrashidoun* – a group supporting Bashar Al-Asad – in response to ‘[*Al Jazeera*’s] position against the people and government of Syria’ (Wikinews, 2012). Similarly, *Aljazeera* English and Arabic portals, including all their satellite live streaming pages, were hacked on 5 September 2012 by a group identifying itself as the ‘Syrian Electronic Army’ (SEA) (ibid, par 5; (BBC, 2012). The same group hacked the emails of several staff members of *Aljazeera* TV channels. Even the SMS news service of *Aljazeera* was hacked in 2012 and several false news alerts were sent to subscribers. But since the hacking was not targeting the publishing system, the wider *Aljazeera* system and security teams within the IT Department took charge. As the iHorizon man puts it, handling *Aljazeera* Net hacking ‘was through the role of the server companies and the IT Department security section. They are always in the line of fire.’ (Personal interview, 2 March 2012).

Although overcoming an electronic attack might not directly fall under ‘innovation,’ given that it has more to do with addressing a problem, it can be called ‘defence innovation.’ The electronic war on media organisations and the subsequent fight back of the latter, is in and of itself a constantly evolving technological quest. ‘Defence innovation’ is a state in which news organisations constantly strive to keep up with the latest technological artifacts and human (or state) skill sets to overcome cyber warfare and to safeguard and protect its electronic borders. The processes of defence innovation are not any different from multimedia innovation processes that regularly take place in the newsroom. Defence innovation goes through a cycle from a vision of a need to a solution, is followed by implementation, and is shaped by past lessons learned (namely

prior attacks), the technology industry, and the knowledge and skills of key actors in the newsroom.

Nevertheless, the Egyptian hacking crisis brought a pressing need and urgent call for action by *Aljazeera*. Contrary to other design or infrastructure innovations and upgrades, the delay in implementation of security measures meant the entire website would come to halt. The hacking crisis, thus, put tremendous pressure on the technical team in the newsroom.

6.9.4 Political Crisis Ushering Citizen Journalism

Perhaps the most striking consequence of the Egyptian uprising on the portal's innovation decisions was through the emergence of citizen journalism. The state crackdown on *Aljazeera*, and the parallel escalation of political events, pushed the online newsroom to rely more on citizen journalism. 'What we came out with during that period was citizen journalism,' said one staff member (Personal interview, 2 March 2012). Although *Aljazeera* Net had been hosting online journalism forums for a few years, citizen journalism (and social media) content had not been integrated into the portal design prior to the uprising. Users' interactivity was prompted merely through the vibrant news articles commenting features, the polls, and the forum discussions. However, social media – such as Facebook and Twitter live streams – blogging, and user-generated content were absent until the uprising. Meanwhile, editorially, *Aljazeera* had a very strict policy governing content published on its websites – which stipulated that any news must be verified by at least two sources, often one from its own correspondents, which put the brakes on citizen-generated content.

Nevertheless, on 5 February 2011 – nearly a week before Mubarak stepped down – *Aljazeera* introduced two important features to its Arabic portal: live updates from

Aljazeera social media feeds on Twitter and Facebook; but more importantly, a dedicated *Sharek*¹¹¹ [meaning ‘Participate’] page <http://sharek.Aljazeera.net/> through which registered users were able to upload videos, pictures, and text related to current events. Most notably, some of these videos were used on the main front page. One senior staff member explains the rationale behind this decision and the dynamics of implementation:

The uprising was spreading in several different places, so to cover the news in detail and with a professional team was extremely difficult. So at times, we had to resort to videos or pictures that were taken by citizens, and there was more emphasis on this content. So this was another challenge: how to enable people to send us the pictures, and the videos, especially during the absence of Internet at that period...We also released the portal ‘Sharek’ page, where users could participate with videos, voice files, and even as text. The idea was to have a dedicated page for those people who could send us content regularly so it becomes almost like an account, something almost similar to YouTube. (Personal interview, R.H., 2 March 2011)

This reflects how important the instant and audio-visual material became to the online team. In a way, the crackdown on the Network created a relative gap that came to be filled by online, user-generated content.

The *Sharek* page was both a design and an editorial novelty. It was linked to the front page with ample tips for users on how to ensure high quality sound and video, and to record the location and time of events. Users had a dedicated registration space before they were able to upload content. However, editorially, this also meant that *Aljazeera’s* stringent policy of two-source verifications was softened. Some of the content on sharek.Aljazeera.net was highlighted on the front page.

6.9.5 Crisis Management

Innovation of the *Aljazeera* Net portal was also shaped by the dynamics of political events and the operational demands they put on the portal to cope with the crisis, in a way that overtook earlier plans for innovation. In the instance of the Egyptian revolution,

¹¹¹ This feature was developed in 2010 but was largely inactive; it was not revitalised until the 2011 uprisings.

unlike the Gaza flotilla when crisis brought novel social media ideas in the newsroom, the team was more reactive to the crisis than technically innovative. Perhaps, the unprecedented load on the portal posed enough operational challenges on the team, leaving little room for technological creativity.

Figure 26 illustrates how the overall traffic on *Aljazeera.net* during February 2011 nearly quadrupled, compared to the same month the following year – reaching over 308 million pageviews per month.

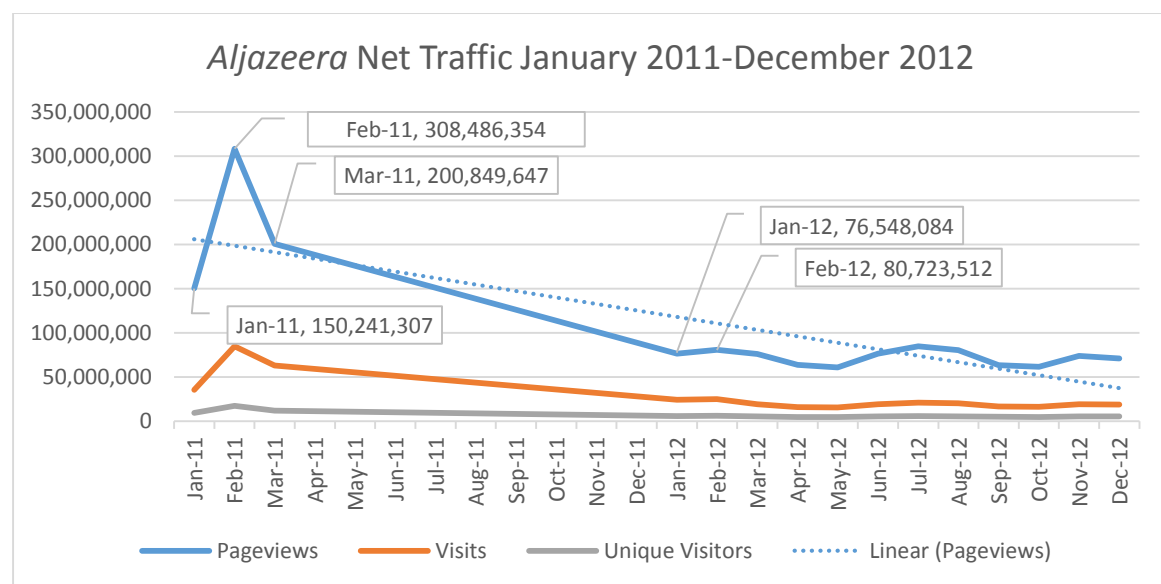


Figure 26: *Aljazeera Net Traffic spiralled during the 25 January revolution*¹¹²

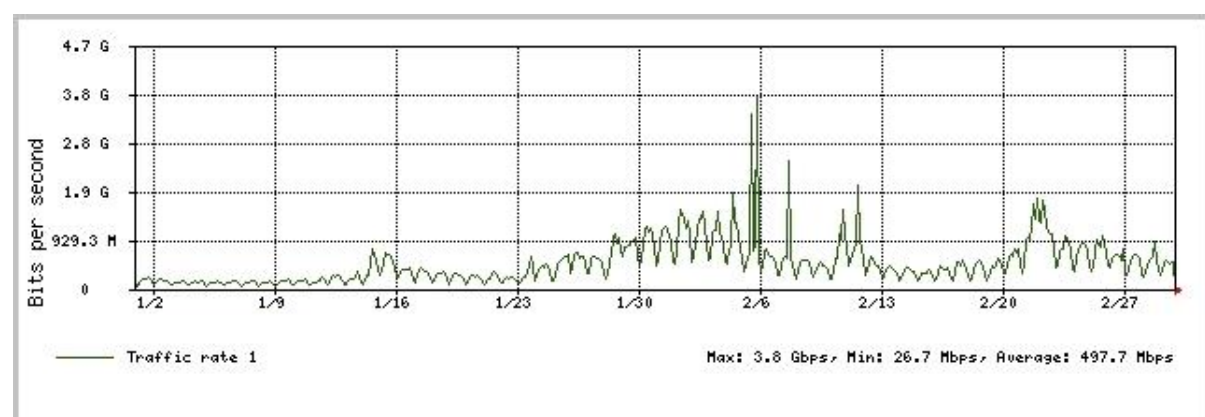


Figure 27: *Aljazeera Net Traffic rate (bits per second) 1 Jan. – 27 Feb. 2011*¹¹³

¹¹² Source: Google Analytics, Aljazeera Net

Meanwhile, Figure 27 demonstrates the physical load on the capacity of the news website bandwidth on any given time. The latter graph shows how the traffic rate per second grew nearly 150-fold – from 26.7 Megabits per second to 3.8 Gigabits per second in the period from January to February 2011, with the highest peaks during the week leading up to Mubarak’s resignation.

This fluctuation made keeping the stability of operations a key priority of the technical support team. Although the larger IT Department supported the portal, *Aljazeera* Net’s iHorizon project coordinator was the front person in the line of fire to handle the portal’s immediate technological problems. He explains the dynamics of work at the time:

What took priority [during the Egyptian uprising] was the hacking, receiving the pictures, the interactions by participants, and how to make the portal stable. The efforts went more to the stability of the site and the ability to be present, rather than working for the long run or on new features... In 2010, I had to put a plan in place that the servers could take, for example, 15 million users per month. During the revolution, it reached 60 million. So what we started to worry about was not the new features, but [how] to make what we already had big enough and developed enough to handle this volume, whether in the infrastructure or the pages, or even for how to make the pages faster and easier [to access]...during that period, you work per event and react to problems. For instance, if we started having slowness in particular areas, we solved the slowness and this problem. (Personal interview, 2 March 2013)

Another staff member affirms: ‘If today I would like to explore a certain new technology for users, if a war comes in the region, all this [initiative] will be blown up [e.g., undermined]. Because we have new priorities (Personal interview, Head of Monitoring and Users, 13 June 2010).

A case in point was the delay in introducing the new Arabic Content Management System (CMS) to *Aljazeera* Net. According to the *Aljazeera* technical team, the idea was approved in early 2010, but the process of adoption and implementation of a new CMS took nearly three years. A new CMS meant changing the workflows, the existing daily

¹¹³ Source: *Aljazeera* Net Google Analytics report.

routines of journalists, and the editorial approval systems already used by the staff. This also meant training to support capacity building and ensure a smooth shift to the new CMS. All this required time, a luxury that was not available during the crisis. ‘We cannot delay response to the users or audience [requests] but [with] internal issues we can tolerate each other,’ reflected one senior editorial staff member on the rationale behind the delay (Personal interview, Deputy Editor-in-Chief, 16 June 2010). In turn, the iHorizon officer highlights how these crisis events affected technical developments:

The new publishing system (CMS) was finished at the beginning of 2012. It had been in the pipeline since 2010, it should have been out in 2011, but because of the events, it was delayed. The traffic has increased dramatically, of course; the challenges increased, of course. Unfortunately, the [development] work is instantaneous and by accident many times. But from the perspective of the business owner [e.g., management], they tell us, ‘I am in a changing world. As IT [team], you need a strategic plan, you need to get this and produce this and develop this; but [when] we get an event now that is an emergency, I cannot abide by a plan with you’ [they would say]. This affects my work, because the developers would be working on something for months or years in the pipeline, and suddenly the priorities change. And they change quickly, and they ask for immediate tasks. (Personal interview, IT person, 2 March 2012)

6.9.6 Taking Visuals to a New Level

The website FrontPage design was also affected by the political events taking place in Egypt and the rest of the Arab World. In the beginning, the *Aljazeera* Net team created a dedicated page <http://www.Aljazeera.net/countries/egypt> for the events of the uprising in Egypt. More interestingly, the online newsroom pre-empted the Arab Spring and prepared the portal accordingly, once the Egyptian uprising began. The iHorizon specialist tells how the design had evolved with the events by January 2011:

During that period, we made almost one page for each country; we even anticipated that the revolutions would reach other countries. After Egypt, we prepared for Libya and for Yemen, so each [country] page would be ready, once the revolution started [in that country] we would launch the page right away. (Personal interview, 2 March 2012)

As the demonstrations evolved in Egypt and subsequently spread to other Arab countries, a dedicated interactive map with live news updates was designed. It enabled users to follow the latest Arab Spring news feeds by country. Picture 13 illustrates the interactive map which first appeared on 7 March 2010 with a much simpler interface and the title: ‘Arab Spring Revolutions’ – a title that was later changed to the ‘Arab Nation’ (e.g., the Arab World) (The Internet Archive, *Aljazeera.net*, last accessed 2 March 2012). The map ‘feeds’ linked to the dedicated page for each Arab country.



Picture 13: Aljazeera interactive map during since the uprisings¹¹⁴.

The iHorizon team said that no changes were made to the portal’s main architectural design during the Egyptian uprising. Most of the changes were done using existing engineering and front end systems, even when introducing Flash or Java designs.

¹¹⁴ The interactive map was positioned in the upper half of *aljazeera.net* front page during the Egyptian uprising, and was then moved in the lower half in 2012.

Nevertheless, the Internet archive recorded that changes to the portal peaked during 2011 and continued through 2012 as the Arab Spring unfolded. Changes included shuffling visuals and video sections to highlight particular events, creating graphic designs linked to important country or analysis pages, and intensifying the production of interactive Flash/Java visuals and timelines of the events. The picture below demonstrates the number of recorded updates on the crawled *Aljazeera* Net website, which reflect both design and content updates to the site.



Picture 14: Increasing portal developments in *Aljazeera.net* since 2011¹¹⁵

In a way, the political events drove many small design and layout changes to the website. The major website makeover was only done during the mid-year of 2013. Like other portals, most design changes were incremental rather than comprehensive. This could be partly because during the crisis, more attention was dedicated to stabilising the portal as discussed above.

¹¹⁵. Source: *The internet archive* Accessed 2 March 2013

6.10 Conceptions of Users and The Ideal Design

6.10.1 Perceptions of Users and their Preferences?

Awareness of users' preferences is a key issue at *Aljazeera*. The wider *Aljazeera* Network spends tens of millions of dollars on audience and market research every year (Personal interview, M.N, 15 June 2010). The Research and Strategic Planning Department (RSP) invests heavily in gathering monthly primary and secondary data on audience research, as well as general market research, assessing TV, Radio, and Internet consumption in the region. In 2010, *Aljazeera* conducted its annual Nielsen study on Arab audiences, sampling over 27,000 respondents across 14 Arab countries and using face-to-face interviews, looking at issues such as branding, viewership, awareness, and usage of its multi-channels and *Aljazeera* Net. In addition to the RSP annual data, *Aljazeera* Net users' preferences and traffic behaviour are analysed by a dedicated marketing officer. The latter sends out weekly and monthly reports on the portal's traffic and the different users' preferences to the editorial management of *Aljazeera* Net. He also sends weekly reports on the ranking of *Aljazeera* compared to other international news organisations such as BBC, CNN Arabic, *Alarabiya*, and the German and French news portals.

Like many news organisations, *Aljazeera* is still grappling with where to best fit its Internet presence within both its editorial role and its wider branding and marketing efforts. For instance, despite talks about restructuring *Aljazeera* Net user research under the Marketing and Strategic Planning Department in 2010, user data analysis remained primarily under *Aljazeera* Net until 2013. Meanwhile, the New Media Department, primarily in charge of social media and mobile platforms, was placed under the Branding and Marketing Department.

Nevertheless, the growth of website traffic since the Egyptian uprising sparked new ideas about finding ways to monitor, analyse, and make use of this large volume of user behaviour data. The portal production manager and the senior marketing officer paid a visit to London during May 2011 to attend an Internet exhibition that showcased the latest online technologies for corporations of all sorts. The Arabic portal management considered a multi-million dollar contract with a German data analysis company.

Sitting over tea one afternoon in Oxford, a marketing officer for *Aljazeera* explained how basic traffic data analysis tools are no longer sufficient to deal with the exponential growth in traffic given *Aljazeera*'s new demands. 'Google Analytics is not enough,' said the marketing officer at the time, explaining how Google presentation of data 24 hours after is 'too late.' This software would be able to provide comprehensive real-time data, including data on where users scroll on a page at any given time. Additionally, it would give them a more accurate ranking of *Aljazeera.net* with competitors such as the *Alexa* service (Personal interview, M.H., 12 May 2011). It was evident that the online newsroom was proactively and aggressively pursuing users' opinions, especially in a more customised fashion – a twist on the traditional data gathering that was merely focused on the portal's traffic rather than users' opinions.

By August 2013, *Aljazeera* together with Qatar Computing Research Centre launched the Forecast and Analytics of Social Media and Traffic (FAST). The FAST platform would analyse in 'real-time the life cycle of news stories on the web and social media, and provide predictive analytics that gauge audience interest' (Qatar Computer Research Institute, 2013). This step echoes *Aljazeera*'s ambitions to deliver more relevant, customised, and engaging content, and improve the allocation of its resources to developing stories.

In terms of the team's conceptions of its users, it is not surprising that the majority of the newsroom editorial and technical staff perceived the portal to be addressing primarily 'Arab-Muslim male readers.' The Network's Nielsen study conducted in 2010 found that 76% of *Aljazeera* Net users are male¹¹⁶. Aside from market research and traffic data, the users' interactions with the portal, whether through comments on articles or direct correspondence with the portal shape these newsroom conceptions. 'You know that you are writing for an Arabic and Muslim reader,' affirms one senior journalist (Personal interview, M.I, 9 June 2010). The average portal users' age bracket is said to be between 25 and 40, while the audience for the same *Aljazeera* on its Satellite channel is perceived to be slightly older.

Despite this perception, recent talks during 2013 with the *Aljazeera* team revealed that the wider *Aljazeera* is keen on reaching out to the younger generation of users, and defying the typical stereotype of catering to 'older users' through the portal. The head of the New Media Department emphasises this ambition:

For us, part of our mandate is to engage more with the youth market. Traditionally, *Aljazeera* Arabic particularly is more popular with older Arabic males. Our mandate is to start to engage with the youth market. So we look at, let's say, the age of the people coming to our Facebook pages and YouTube, and use it for learning what markets we are hitting. (Personal interview, New Media Department head, 14 June 2010)

Moreover, the online newsroom perceived the online users to be 'busy' and that they 'would not stay long on the website.' This often not only impacts the editorial line, but also the multimedia choices on the portal. For instance, the decision of having the voting poll for three days instead of one day was said to 'give busy users more chance to see the poll' (Personal interview, M.K., 13 June 2010). Similarly, the choice of visually highlighting two analysis pieces out of the six key headlines allocated on the news

¹¹⁶ Source: Aljazeera Research and Strategic Planning Department data.

carousel was to attract users to these paid products without wasting users' time looking for them.

Meanwhile, there is a general conception in the online newsroom and the wider *Aljazeera* that the Arab World faces particular hindrances when it comes to the Internet. Despite exceptions in the Gulf, Jordan, Egypt, and Morocco, the rest of the Arab region has less access to the Internet. Moreover, Arab users are perceived to be relatively less technologically savvy and generally lagging in Internet capacities compared to the Western audience. This is partly due to technological literacy and partly due to a lack of English language among users. There is also the issue of censorship; for instance, Syria and Tunisia block Facebook and some YouTube. All these things slow the team's ambitious technological plans. One senior staff member at *Aljazeera* Net explains why the perceived gap between the Arab and English users made the team hold back on many multimedia features at the Arabic portal, back in 2010:

If you tell me to add the Facebook and Twitter services and these stories, I would tell you that the English service would be more worthwhile than the Arabic. The issue of [CNN's] iReport or 'Participate,' and people can upload videos et cetera, these are societal and technological differences between the two audiences. So I cannot invest time and effort on a service that only benefits 5% of users. I would not ignore them, but they will not be my priorities of work. But for the English portal, [I] would say O.K. (Personal interview, S.H, 16 June 2010)

The technical team also echoes a similar view:

There is a huge difference between our technology in the Arab World and Western media technology, not in terms of the journalism, but technology. Our problem is that our audience, their technological capacities are limited, yes, in Arab nations there is a lot of youth and there is the trend toward the Internet and Facebook, but we are still lagging in technology compared to the West. And this is something that we face when we suggest projects [ideas]. For instance, we have presented the idea of Podcast since 2006 as a company [iHorizon]... But at the time, the trend was that 'no one has iPod' ... We are keen on the majority who can use this service, oh yes, it is a nice new service, but we do not want to offer a service just for the elite, but for the majority of people. So this service did not get implemented until 2008. (Personal interview, iHorizon, 8 June 2010)

And although the Internet has become more central since the Arab Spring, the team seems to struggle to cater to two extreme types of current users on the portal: those with high access and those with low access. The iHorizon system analyst sums up the perceived tension between design innovation and catering to two Arab users' affordances:

When we came to design the portal, our designers made incredible designs in flash and video, but they could not do them for *Aljazeera* for a simple reason: we are not designing it for local [consumption], or only for Qatar with its high 2-4 GB Internet bandwidth. Whenever you think about design, you should try to minimise the loading speed of the page. Unfortunately, there is a large gap between the poorest and the richest Arab countries when it comes to the Internet. Sometimes we get frustrated: we are trying to reach the lowest [Internet access], but at the same time, have to cater to the people who connect to us the most. (Personal interview, iHorizon, 8 June 2010)

Aljazeera Net traffic data shows that the highest traffic comes from the CGC countries and Egypt, or Arabs in diaspora – which are not typical to the rest of the Arab countries Internet affordances. Nevertheless, *Aljazeera* prides itself on an ethos: 'We must cater to the wider Arab audience, to the simple and to the sophisticated' (Personal interview, M.K., 13 June 2010). In short, the data collected on user preferences and behaviour on the portal shape not only the conceptions about the 'target users,' but also innovation decisions at *Aljazeera* Net. The realisation of this strong digital divide in the Arab region presents a challenge on the user-driven, but technologically competitive portal.

It has been noted, however, that with the advent of Mobile phones linked to the Internet, things will slowly change. The NMD team is busy working on services for iPhones, as well as more user-affordable phones such as the Nokia and Android phones.

6.10.2 Perceptions of the 'Ideal' Design of Online Portals

6.10.2.1 Western Models and Competition

When it comes to technology and despite *Aljazeera* Net's embedded Pan-Arabic and Islamic culture, the online newsroom influence is Western. Both the editorial and technical staffs follow closely the Western news portals, especially of American and British media.

Historically, this goes back to 2003 when *Aljazeera* signed a technical collaboration agreement with the BBC. There is also an inherent perception that the latest technological trends come from the West. There are many instances when it was noticed that *Aljazeera* followed the Western technological trend. A case in point is when *Aljazeera* Net endeavoured to place an Arabic language teaching programme on its portal, similar to that of the BBC English language teaching programme on its portal. One technical staff member reflects on how the portal's 'audio service' came about:

So we thought about a project that we could make a service of 'audio' for blind users so they could browse the portal. This stuff is in Europe to a large extent, here [e.g., in the Arab World] not that much, most of the services that we found here were mainly solutions in English, not working in Arabic. (Personal interview, M.H, 6 June 2010)

In general, the iHorizon person explains how he probes ideas when looking for technological novelty for the portal:

The main stages of my own work, start with the websites and the foreign media news websites, for instance The NY Times, CNN, BBC, BBC in particular, and I see the technology they have....[...] After a while, you start developing references specialising in these issues. There are websites specialised in these best practices in design and graphics, like Smash Magazine, so I go and see what the best practices are in this area. I also look at websites of web-architect, and you do research on Google, and you see similar websites. (Personal interview IT Horizon, 8 June 2010)

However, when it comes to implementation, not all Western designs are adopted by *Aljazeera* Net, partly because of traditional routines and partly because of conceptions about the nature of Arab users of the portal.

iHorizon gives one example of the gap between what he perceived as ideal new design and the way he saw Arab users:

If I use the same CNN tool used during the American elections, for example – which has a three-dimensional effect giving a 360-degree view of the inauguration of Obama and his oath, as if you are there in the actual location – but if I do it on the portal, I am sure no one would see it. Maybe very few would be able to see it, maybe the IT people or those who know IT because it was a new idea. CNN was the first organisation to use it with Microsoft. It required someone who had the skill – maybe children who are used to video games and know these features, but kids would not be watching this news, to be able to rotate a 360 picture panoramic view is not easy for a user to understand. (Personal interview, R.H., 8 June 2010)

6.10.2.2 Setting the Trends, not just Following them

Aljazeera Net portal ranks among the top Arab news portals in the world, and has won several Arab and international awards, the last of which was its PAN-Arab Web best portal in early 2013. The network on the whole has a very aggressive and market-driven vision about technological innovation. The head of the IT Department echoes the organisation's ethos:

I think there is now an overall agreement that technology is the driver, and it is everywhere. The success of any media organisation is based on how much investment they put into technology. No one can deny that, in addition to the editorial, the cutting edge understanding, and really committed journalists and reporters, et cetera, you also need reporters that can use the necessary tools to report. This is obvious to almost everybody now. It is just a matter now of how successful you are in implementing such a vision. In *Aljazeera*, now we are moving on this new media development, so it gets closer to the editorial and the newsrooms. We are usually in technology in the back office, but new media should be an integral part of the newsroom, and exchange their ideas and information. (Personal interview, IT Manager, 15 June 2010)

Despite the close observation of what the Western media industry is doing, there seems to be a keen awareness that *Aljazeera* cannot ‘copy’ anything it sees, and adaptation to its own audience is paramount. The iHorizon system analyst explains this point:

But you see ‘is this best practice suitable for you?’ I don’t just look at their technology, we look at their technology and evaluate to what extent it could apply to us. There is another important aspect, the BBC for instance, is [broadcast] very similar to us in terms of its nature of work; but the NY Times is a newspaper [originally]. So there are differences, even if it offers a good service, it might not suit us. (Personal interview, IT iHorizon, 8 June 2010)

Moreover, it is clear that *Aljazeera* does not merely follow ardently the trends in Western (and to a lesser degree Arabic) media and technology organisations, but it strives to set them. For instance, the news organisation has invested in delivering transcribed versions of its programmes and videos on its portal, as a way to enable wider Internet users to access the original satellite audio-visual content. Similarly, the technical support team developed an idea of a ‘database intelligence map,’ and although the idea had not yet crystallised at the time of observation, the plan was approved. Both these ideas have not been done by any news organisations before, yet, the team felt they met the needs of Arab users and also bring the *Aljazeera* net portal to the forefront of competition worldwide technologically.

At the same time, in addition to following other news websites technologies, we develop things on our own, things particular to us. For instance, we are talking about having an Encyclopaedia, which could have a new presentation style. This is 100% pure idea from us, and we have not seen it on any other website. We did a good search and could not see it elsewhere. The idea of the Encyclopaedia was to link the AJ database with the news events. For example, it would have ‘Personalities,’ ‘Events,’ ‘Organisations,’ etc. (Personal interview, R.H, 8 June 2010)

6.10.2.3 More emphasis on visuals and video

Observation of the design evolvement since that period also reveals an increasing focus on pictures and video. This is quite strong considering that the *Aljazeera* Net team still

regards itself as more of a ‘print’ than ‘broadcast’ news website. One technical staff member expressed what some journalists in *Aljazeera* Net felt:

... we found ourselves – *Aljazeera* – more similar to the print portals, rather than the broadcasting portals – because of the way of presentation, the number and quantity of content put us within the category of print portal. So we think about the best practices and see if they apply to us and our identity. At the end, any work you present is to fit the largest number of users. (Personal interview, R.H., 8 June 2010)

In contrast, the senior editorial management, the New Media Department and the IT services supporting the wider *Aljazeera* Network all have a strong vision about a shift toward video. Recent portal designs also suggest that more emphasis has been placed on multimedia – including pictures and video.

6.11 Conclusion and Discussion

The *Aljazeera* Net case illustrates how a large news organisation in a politically sensitive transnational context can innovate – proactively and reactively – even in times of political crisis. In terms of the key factors that shaped innovation decisions, it was clear that the size of the newsroom, the conceptions and knowledge about the Arab (versus English) Internet context and users preferences, and most notably, cultural differences, largely shaped what ideas took precedence. A contrast between the Arabic and English portal was helpful in highlighting how the dynamics of a smaller, non-Arabic, younger and proximate newsroom to the TV Channel, made the English portal’s technological visions and adoption quite different from its Arabic sister. This was evident in their adoption of live streaming and videos, as well as social media, for instance – which came almost two years earlier than to *Aljazeera* Net.

Secondly, it was clear that *Aljazeera* Net’s large organisational structure brought a relatively more centralised and hierarchical innovation decision-making process, with the editor-in-chief and his deputies being the primary authorities for approving both editorial

content and technological implementations. Even with the publishing software, although journalists were allowed authority to select and edit multimedia (namely pictures and videos) content that accompanied their stories, the main ‘call’ and final scrutiny was left to the deputy editors-in- chief, who are the newsroom supervisors for the shift. This cycle of approvals and managing multimedia content was more fluid in the English portal where staff are more multi-skilled. Similarly, the wider *Aljazeera* Network’s size makes innovation decisions more complex and multi-layered, as changing the ‘status quo’ – including the staff skills, in-place systems and a worldwide infrastructure, makes implementation and adoption a longer process. While *Aljazeera*’s large size and budget give it more resources to innovate, they make decision making more complex and less integrated across its many departments.

In addition to the general cultural and organisational actors, in the case of *Aljazeera* Net, it was evident that the political context of the region is one key, if not the most, influential factor shaping decisions of innovation and their implementation. The political crisis in the region constantly put pressures on the editorial team and well as the technical teams. In the Egyptian revolution of 25 January case, this was evident in how *Aljazeera* Net put all its portal development on hold, and focused instead on two primary activities: stabilizing the portal – whether against hacking attacks or to cope with the sheer volume of traffic that spiralled on the portal – and introducing more video and visual content, mainly from citizen journalism sources. Meanwhile, all technological plans for the website, including a much needed content publisher system upgrade, were put on hold. And although the emphasis on visuals was heightened in the design of their front page during the uprisings, it did not require any new infrastructure or technology. In a way, political crisis, and the consequential user-driven media logic of the newsroom subverted innovation, rather than

accentuated it. The clear exception was the degree to which the crisis led the newsroom to gain real experience with social media and content generated by users.

Nevertheless, the creation of a dedicated young 'New Media' team provided more opportunity to innovate for both the Arabic and English portals during crisis, given that they did not have the same editorial and technological challenges faced by *Aljazeera* Net. This was evident in the case of mobile technologies and applications, as well as the idea of a Twitter hashtag during the Gaza flotilla attack.

7 Chapter Seven: Comparative Analysis and Emerging Themes

7.1 Introduction

This chapter brings together the three case studies, looking into patterns of innovation processes and the factors that shape multimedia innovation within these Arabic newsrooms. In doing so, it will examine the key similarities and differences across the cases, analysing the patterns and emerging themes. Building on the Diffusion of Innovation theory and the Social Shaping of Technology construct, as two faces of the same coin of innovation, the chapter analysis will examine both the social changes within and outside three newsrooms, as well as the technology adoption of these newsrooms. In doing so, the chapter tackles both the instances of technological adoption and those of non-adoption, in an attempt to move beyond the technologically deterministic paradigm.

The chapter begins with highlighting an overarching theme related to the definition of multimedia innovation that emerged in the study, which shaped the analytical approach to the cases. The chapter then presents a mapping of the multimedia innovation cycle and the key innovation practices within the news organisations. It will look at the innovation cycle, in which decision making processes and the main strategies of adopting technological artifacts take place. It will also examine the key change agents across the newsrooms. The second part, building on the social shaping of technology, takes a macro view of the key drivers of innovation identified in the cases: the organisational factors, the political factors, the techno-industrial factors, and the user factors. It will compare how each of these drivers impacted the visions, decisions, and implementation of multimedia; and how they buttressed or exacerbated diffusion of innovation. Finally, the last part will attempt to develop a model of innovation building on previous Diffusion of

Innovation and multimedia adoption models, as well as Social Shaping of Technology. In doing so, it will discuss some of the shortcomings of these approaches in analysing the cases, and propose a new model – one that amalgamates the main factors shaping newsroom innovation and which factors the political context into the study of newsroom innovation.

7.1.1 Blurring Boundaries of Multimedia Innovation

Although the study primarily traces the portal's multimedia innovations, it was difficult, and possibly superficial, to separate online developments from other developments happening offline. The diffusion of multimedia artifacts was not taking place in a vacuum; it was shaping and being shaped by the editorial, organisational, and managerial developments at the newsrooms. Moreover, the implementation of the portals' interface was only the tip of the technological iceberg. It was directly related and often preceded by backend technological developments necessary to enable the content production and website design and services. These blurred boundaries increased particularly as the three news organisations gradually moved from single-media (e.g., print or broadcast) entities to converged multimedia organisations. Consequently, the visions, decisions, and actors at the wider *Aljazeera* Network, *Almasry Alyoum* Media Corp., and *Almassae* Media organisations – two of which had other portals and newsrooms – shaped the process of implementation at aljazeera.net, almasryalyoum.com, and almassae.press.ma, respectively. For that purpose, this research challenges the 'online-offline' duality of innovation. It simultaneously analysed both the multimedia and the social transformations of the three studied portals. Some of these transformations could occur at multiple points in the shaping and diffusion of the multimedia artifacts.

7.2 Mapping Innovation in Three Online Newsrooms

The first research question of this thesis inquires about the ‘most significant processes and strategies that shape multimedia innovation’ in Arabic online newsrooms. To answer that question, a number of aspects of the innovation diffusion process were analysed across the three newsrooms: the Qatar *Aljazeera* Net, the Egyptian *Almasry Alyoum*, and the Moroccan *Almassae*. They include the key innovation adoption patterns and processes identified within these newsrooms, the key agents affecting the innovation process within the newsrooms, and the main newsroom demographics that shape multimedia innovation in each case.

7.2.1 The Innovation Process and Adoption Patterns

There are common characteristics across the three cases related to the cycle of decision-making and implementation, and the patterns of innovation within each newsroom. This innovation process across the cases followed three distinctive patterns: a proactive cycle, a reactive cycle, and an ad-hoc cycle. Table 11 illustrates the three simultaneous cycles that take place at the newsrooms and could affect one another.

Table 12: The three Newsrooms' Innovation Cycles

Cycles	Implementation	Decision Accelerators	Decision Decelerators
Reactive	High-priority	Crisis Immediate needs	Crisis
Proactive	Medium-priority (seasonal approval)	Competitors, Needs (org./users), Technological trends, Size High agency	Resources (Human/Financial) Staff Capacity/skills/attitudes Low users access/tech capacities
Ad-Hoc	Low-priority	Technological trends IT visions Management	

The first typical cycle is ‘proactive’ and follows a generally stable process, often beginning with regular meetings and tools to identify portal problems and elicit innovative ideas for the portal’s improvement. This is often followed by development of a ‘sketch’ or a prototype design, a short or long term (e.g., annual) feasibility study explaining the benefits and costs involved, and a budget. Once approved, idea(s) go through an implementation phase in which continuous team feedback and incremental adjustments to the technological artifact take place – that is, the Agile¹¹⁷ approach described at length in chapter five. Then, depending on the sophistication of the idea, the hierarchical structure of decision making, and the technological artifact involved, the time frame for idea implementation could vary from a few days (such as in the case of small design adjustments to the website), to a few years (such as the change of a news management system). ‘Proactive innovation’ was more prevalent at *Almasry Alyoum* and *Aljazeera*, which had aggressive and deliberate multimedia innovation plans. This could be attributed to their higher human and financial resources allocated to technology development. Examples included the introduction of the new ‘*Sharek*’ interactive pages at *Aljazeera* and *Almasry Alyoum*. Meanwhile, smaller newsrooms such as *Almassae* had a slower and less deliberate cycle of innovation due to the limited resources available for technological development.

Often, there are organisational factors that accelerate or decelerate the pace of the proactive innovation cycle. For instance, motivators such as staff enthusiasm about technological development and its role in their work, or management’s visions about the potential of the online news market could ‘push’ ideas and expedite this cycle. In contrast, organisational challenges such as a lack of financial and time resources, inadequate staff skills, or users’ technological challenges (e.g., access or literacy of technology) could

¹¹⁷ Please see Annex 5 for a diagram of the Agile process

‘pull back’ innovation ideas and slow the process. These inhibitors and motivators of innovation, and the related factors that shape technology adoption and construction within the newsroom, are explained at length in the following section.

The proactive innovation cycle is most characteristic of a ‘business-as-usual’ newsroom condition, something that is hardly evident across the cases, particularly given the political events that took place during the research period. During the Arab Spring ‘crisis’ environment, the three newsrooms shifted their innovation cycle to more ‘reactive’ modes – one which requires faster decision making and shorter planning and approval processes. For instance, both *Aljazeera* Net and *Almasry Alyoum* newsrooms had to undergo an intensive and compact process of decision and technological adaptation during the Egyptian uprisings of January 2011. Whether due to the Internet cut in Egypt or to hacking, ideas and decisions were instant and often intuitive; they served to either troubleshoot emergency problems or to overcome physical and technical constraints. The political crisis led to a disruption of the regular proactive innovation cycle.

Even without a crisis, a proactive, straightforward, and unilinear adoption process rarely happened in the three cases. Innovation plans were often intercepted by new developments inside or outside the newsrooms. Individual initiatives and rapid technological changes in the news industry resulted in quick newsroom reactions to cope with competitors quickly. Such developments would add a new layer of unplanned innovation process: the ‘ad-hoc’ or spontaneous innovation. The ‘ad-hoc’ innovation cycle was common across the cases, albeit in varying degrees; and was characterised by high ‘innovativeness’, or ‘the degree to which an individual, or other unit of adoption, is relatively earlier in adopting new ideas than other members of a system’ (Rogers, 2003). A typical example is *Almasry Alyoum*’s decision to ‘try’ the news alert SMS service, which was triggered by the Vodafone company approaching the news organisation, and

management's intuition that this could sell and is worth experimenting with (especially given that the investment was low). There was no prior vision or major feasibility study preceding the decision of adoption.

Tools such as 'wish lists' databases – available in the case of *Aljazeera* and *Almasry Alyoum* – or other communication channels, such as emails and meetings, also enable staff members to share their ideas and put forward their aspirations for the portal. And despite being recorded, these ideas do not necessarily become high priority or part of the more 'regular' plans. They would require high agency and a welcoming management style before they are realised as 'projects.'

Being ad-hoc, irregular, and intuitive, this mode is largely buttressed by a pro-innovation work environment, supportive of the team introducing new ideas. In all three cases, factors influencing the movement from the idea stage to the approval stage are also largely affected by budget, time, and human affordances inside the newsroom.

7.2.2 Multimedia Development: A Metamorphic Process

Looking at how the innovation cycles reflected on the actual portals' technology and multimedia evolution, there were a number of observations common across the cases. First, it was apparent that the design evolution was 'metamorphic' rather than sudden. The portals' interface development, and the parallel newsroom technology, followed an incremental trajectory. For instance, major developments, such as new services of blogging or news content management, often took a long time (often up to two years) to mature before they came to life. Meanwhile, smaller changes in the front-end multimedia design, such as layout shuffling or introduction of new buttons, occurred more frequently.

Secondly, related to that metamorphic characteristic of the innovation diffusion, was a reflexive learning process. At the beginning of fieldwork, each of the portals studied was

a pioneering model for mainstream online news websites in their respective countries. Some of the technological artifacts implemented in these newsrooms had not been previously adopted by their rivals and thus, the newsrooms had no prior technical or organisational experience with these ideas. They had to experiment. Although models of similar implementation elsewhere (in the West) were observed, the available technical expertise to implement – or adapt them to the newsrooms’ needs – was absent. In these instances, the innovation adoption followed a learning process often characterised by trial and error.

Chapter 5 (section 5.6.3 p. 203) narrates how *Almasry Alyoum*’s decision to design its new portal in 2010 went through a trial and error process with different outsourcing options. ‘No one had done this type of news portal development in Egypt before, we had to experiment,’ said the portal project manager of *Almasry Alyoum* (Personal interview, 20 September 2010). There was a similar situation with *Almassae*, when dealing with a company to design its first portal version (see section 4.4.4 p.135).

Smaller multimedia innovation decisions also often came intuitively and through experimentation. A case in point is *Aljazeera Net*’s choice of the number of key stories displayed in the carousel. When asked why they moved from six to eight picture stories in 2010, the newsroom supervisor spontaneously answered, ‘Like that. We decided. We could make them ten tomorrow.’ (Personal interview, 16 June 2010). The decision came as a gradual realisation of the top stories consuming the region (which included six key stories and two analysis articles) and was modified as the members reflected upon the editorial objectives of the portal.

Even when the newsrooms were not navigating uncharted territory, the innovation process was characterised by a high level of reflexivity, in which the technical and

editorial teams exchanged ideas about the validity of innovation. Reflexivity helped raise concerns about implementation and usefulness, and shaped adaptation and future implementation. The dynamics of adoption of technological artifacts across the cases were far from straightforward. Any multimedia technological artifact has undergone constant filtering, group discussion, and reshaping to suit the norms, needs, and affordances of the news organisation and its audiences. This is not to say that the process was unilinear; team reflexivity was embedded into the metamorphic evolvement of design.

Team reflexivity comes during the selection and implementation phases – which begin with filtering whatever available technological artifacts ‘work’ for the newsroom and how to adapt them to its needs – although it also affects future ideas. Perhaps this is why, even in the proactive planned innovation cycle, some teams such as *Almasry Alyoum* adopt the *Agile* method in the portal’s development, through which design involves a long process of testing and feedback from the team before the final ‘live’ application on the portal. ‘I do simulation every day, even after the modifications [suggested]. I go back and I do the same process. It is like car mechanics, and bit by bit things get set right,’ explained one IT team leader on how portal developments evolve (Personal interview, A. M., 11 January 2011).

This finding supports prior scholarship on organisational innovation establishing that reflexivity and adaptation to the working methods and functioning is an important predictor of innovation in any organisation (Boczkowski, 2001; Schippers et al., 2012). It also confirms that management styles and the general newsroom culture encouraging staff ideas often enhance reflexivity and innovation.

7.2.3 Key Innovation Agents

In general, the three cases shared a particular common set of agents who played the largest role in shaping innovation visions, decisions, and implementation. These agents impact the process of innovation through layers of influence; and can be categorised into three groups: the technical team – or IT individuals supporting the portal development, the multimedia and design team, and the senior management team. The first two groups are often the key change agents driving new ideas. The last group – the senior management – is the valve that makes artifacts pass or not. For instance, they approve projects and the budgets for portal development, chair innovation meetings, and weigh which innovation projects should take priority. They also are the most understanding of the bigger picture. They are acquainted with the general organisational needs and gaps and are most familiar with the affordances of time, staff, and money. Without their ‘buy-in’ for any idea, implementation is impossible. However, the junior to middle-management, and often young staff who are in charge of design, social media, and IT support are often the most ‘connected’ to the latest trends. Hence, they play a large role in convincing management of the benefits of new media artifacts. Even in small-sized *Almassae*, the young data entry person – who has a double degree in graphic design and IT – had a large role in introducing ideas, and even had autonomy to administer minor changes directly to the portal.

It is worth noting that, although the junior and younger teams played a dynamic role in generating new multimedia ideas, the real anchor leading innovativeness within the organisation was senior management. The latter’s visions, conceptions, and management styles were central to the pace and direction of implementation. A case in point was the managing director of *Almasry Alyoum* in 2010, whose progressive Internet vision was a key driving force behind the organisation’s move to join *The Guardian’s* partnership,

which dramatically changed the portal's purpose and development over the span of one year.

Moreover, it was evident that individual agency across the cases changed with the size and centrality of newsrooms. The larger and more central the newsroom, the more agency was maintained by senior staff members, and vice versa. For instance, *Almassae* young and junior staff had more autonomy to make (small) suggestions and decisions given that the online team was very small. At the same time, *Aljazeera* Net, with its large hierarchal structure, had little room for junior staff to impact innovation changes, despite their vital contribution in pumping new ideas. A long chain of approvals often slowed or halted ideas before they materialised.

This is not to say that size was always equivalent to centralisation. Management style plays a large role in providing a welcoming culture to innovativeness, and decentralisation the structure; which in turn could counter the newsroom size effect. This is the case found at *Almasry Alyoum*, despite its relatively large portal team (nearly 85 by 2013¹¹⁸). The portal's project manager allowed junior staff to have larger autonomy over some portal decisions, such as introducing and managing new multimedia content. She also ensured regular team brainstorming meetings to elicit ideas for the portal's improvement. In addition, journalists were given financial incentives for any creative multimedia content they produced (such as video stories out of regular scoops). Thus, personal leadership styles were found to influence staff motivation and buttress individual agency within the innovation process.

¹¹⁸ The number includes the editorial, the multimedia, the digital journalism and the portal's development teams.

7.2.4 Demographics, Agency and Innovativeness

In analysing the demographics of each newsroom, considerable differences among the three online newsrooms were found. The methods chapter illustrated the age and gender differences of the online staff interviewed in each newsroom. It was not possible to get accurate gender and age data for the wider news organisations; however, the interviews and observations were highly reflective of the demographics. Of the three cases, *Almasry Alyoum* was the youngest news organisation; with the majority of its interviewees being under 35 years of age. This was followed by *Almassae*, then *Aljazeera Net*. It was also the most gender-balanced of the three newsrooms, having the highest number of women, both on its multimedia production team and in its portal management. Although these numbers only relate to the people directly or indirectly involved in the portal's news production, and do not necessarily represent the full structure of the wider news organisation, they are quite reflective of the wider organisations' structures to which they belong.

	<i>Aljazeera Net</i>	<i>Almasry Alyoum</i>	<i>Almassae</i>
Gender	Largely male	Mixed	Largely male
Youth	Low	High	Mixed
Nationality	Mixed Arab nationality	Largely nationals	Largely nationals

In correlation with this distribution, *Almasry Alyoum* had the highest number of multimedia changes among the three cases during the three years (see Table 13).

Moreover, the pace of developments of the AMAY multimedia services and backend technology affecting the workflow of online news production dramatically increased after 2011, as chapter five describes. Following *Almasry Alyoum* was *Aljazeera Net*, then *Almassae*. This could indicate a relationship between the demographics of the newsroom and the agency of innovation.

Table 13: Typology of Multimedia Features across the Three Portals

MULTIMEDIA CONTENT, FEATURES, and SERVICES	ALJAZEERA NET	ALMASRY ALYOUM	ALMASSAE
MULTIMEDIA CONTENT			
live news ticker/ live updates from Social media	✓	✓	X ¹¹⁹
animated graphics	✓	✓	X
Cartoons	✓	✓	✓
Pictures	✓	✓	✓
Embedded videos from other sources (YouTube linked)	✓	✓	✓
videos (own)	✓	✓	X
live video/TV streaming	✓	✓ ¹²⁰	X
Hyper textual links on news stories	✓	✓	X
INTERACTIVE CONTENT			
interactive maps /timelines	✓	✓	X
voting polls / surveys	✓	✓	✓
users commenting enabled	✓	✓	✓ ¹²¹
Sharing news stories via social media and email	✓	✓	✓ ¹²²
CITIZEN JOURNALISM and UGC			
registered users share multimedia content and stories	✓	✓	X
Discussion forums	✓	✓	X
Users blogging site	✓	✓	X
Journalists blog site	✓	✓	X
SOCIAL MEDIA CONTENT			
users commenting on stories via their own social media	✓	✓	X
embedded widget enables users to 'like' and share content on social media	✓	✓	X
personalised 'favourite stories by your friends' or 'your friends prefer' widget	✓	✓	X
social media accounts for the news organisation (Twitter, G+, Facebook, YouTube)	✓	✓	X
MOBILE and TABLET SERVICES			
phone SMS news alert	✓	✓	X
Phone voice news alert	X	✓	X
Light mobile website version	✓	✓	X
Apple OS tablet and smartphone applications	✓	✓	X
Android OS tablet and smartphone applications	✓	X	X
OTHER PORTAL SERVICES			
E-newsletter for latest news (or print issue)	✓	✓	✓
PDF (or online shovel copy) version of the print issue	✓	✓	✓
E-Magazine reading service of archival print editions ¹²³	X	X	✓
Jobs service	✓	✓	X
Live chat with journalists	X	✓	X
Links to weather, yellow pages, exchange rate..etc	✓	✓	X

¹¹⁹ The live ticker on *Almassae* was hardly updated.

¹²⁰ Only limited live streaming was done using mobile phone videos during the 25 January 2011 uprisings

¹²¹ Limited only to registered users

¹²² *Almassae* enables sharing stories only via Facebook or email

¹²³ Via issuu free portal.

Although making generalisations about any direct causality between demographics and innovativeness of an organisation is over simplistic, it is safe to deduce that news organisations that have more staff familiar with technology and that are gender-balanced have higher innovativeness than others.

It was also noticeable that young fresh graduates, often possessing no IT background – were the ones pumping new technological ideas into the three newsrooms. The New Media Department at *Aljazeera* Network (largely serving *Aljazeera* English) is a perfect example. The department was primarily made up of staff in their 20s, and except for two members, no one on the team had IT undergraduate or graduate degrees. Yet, the team's own personal social media and Internet 'tapping' were enough to position it to drive social media and mobile innovation within the organisation.

Similarly, *Almasry Alyoum's* young middle management had only personal multimedia experiences, yet was vital in the portal's upgrade. Even *Almassae's* small portal team had an IT manager in his early 30s, and a data entry person in her late 20s. These roles were indeed a result of a larger organisational vision that perceived youth as better able to tap into and understand the Internet environment. This is particularly true as their market studies reveal that 90 million Arabs aged 15 to 35 years use the Internet (TelecomPaper, 2012).

In contrast, despite the youthful character of the wider *Aljazeera* New Media Department, the Arabic online newsroom – *Aljazeera* Net – is relatively older. The newsroom of *Aljazeera* Net – unlike other portals teams in *Aljazeera* – consists primarily of journalists in their 40s who come from mainstream print traditions. This was seen to have some consequences for the dynamics of innovation within the newsroom. For instance, it is striking that, although *Aljazeera* Net is inherently part of a broadcast news organisation,

the amount of embedded news videos in the portal stories is far less than *Almasry Alyoum*. This can be partly attributed to the high infrastructure costs of introducing embedded videos within a portal of *Aljazeera* Net's size (which already hosts live streaming of the Arabic Channels on one of its pages). Nevertheless, the journalists' relative older age and related persisting traditional routines and skill sets were often raised in interviewees as some of the key factors slowing introduction of sophisticated technological tasks to the newsroom. Older staff members also complained about the time and effort it took them to complete tasks such as hyperlinking, tagging, and adding pictures or videos to their stories.

7.3 The Social Shaping of Innovation in the Multimedia Newsroom

The second research question tackles the factors that constrain or buttress multimedia innovation; and the reasons multimedia designs evolved in certain ways and not in others. Four critical sets of factors emerged from the cases as shaping the adoption process and the construction of multimedia artifacts within the newsrooms: the organisational structures, the political context, the technology industry, and the users. These factors interacted continuously with one another and overlapped; sometimes they were in tension, and other times, they were complementary.

7.3.1 Organisational

The first set of factors relate to the internal organisational aspects of the newsroom. They determine how the newsrooms react to other external actors such as the industry, the users, or events occurring in the newsrooms' external political environment.

7.3.1.1 Size and Structure of the Newsroom

One striking characteristic in the three cases is the volatility of a newsroom's structure in relation to its size. In general, yearly staffing changes took place in the online newsrooms.

Some members left or were promoted; others newly joined. However, the smaller the size of the news organisation, the more its structure vulnerability became apparent. The case of Egypt and Morocco are typical. Being medium and small-sized respectively, the two newsrooms underwent dramatic reshuffling of positions. *Almasry Alyoum* has changed its main portal manager and IT manager team twice since 2010, and has had major restructuring of its online team (including adding a social media and a digital journalism team). Moreover, the news organisation's editor-in-chief, its managing director, and the business manager of the portal, quit a few months after the Egyptian uprising began in 2011. Similarly, *Almassae*'s loss of its founder and editor-in-chief led to the departure of some of its key editorial staff, despite the fact that the small online team remained: the IT manager and the two key data entry staff members.

In contrast, *Aljazeera* Net's structure remained largely intact, despite the departure of the Network's Director General Waddah Khanfar. Although *Aljazeera* Net restructured its staffing roles, 90% of its staff remained in their posts, but with changes in post names and responsibilities. The only key changes made were the acquisition of additional social media staff and replacement of the iHorizon system analyst – who had voluntarily moved to another post at the Network's wider IT department.¹²⁴ The two post roles were already in the *Aljazeera* Net structure, and unlike the two other newsrooms, the total number of staff changes did not exceed 15% of the total number of staff members in the online newsroom.

Two key aspects are attributed to these varying structural changes: one political and the other purely economic. These are discussed in the coming sections. Nevertheless, it is also plausible that larger news organisations are generally more stable thanks to their

¹²⁴ The iHorizon member moved to another post within the wider *Aljazeera* Network IT department; while a new member was assigned the iHorizon coordinator post.

hierarchal, financial, management, and historical inheritances, which could make them more equipped to handle external changes. Meanwhile, although smaller organisations are more financially vulnerable, their less centralised systems make innovation adoption less rigid. They have more room for growth and change.

The newsroom staffing structure has a direct impact on newsroom innovations (Boczkowski, 2004b; Gynnild, 2013; Weiss & Domingo, 2010). New individual actors come with new visions about technology, different expertise, new communication and management styles, and new conceptions about the users – all aspects that directly affect their agency in the innovation process. This was evident in the three cases. For instance, as discussed earlier, *Almasry Alyoum* had the most portal multimedia changes over three years; it also had the higher turnover in its online team. In stark contrast, *Almassae* – which team remained unchanged – hardly changed its portal design.

7.3.1.2 Affordances of Different Business Models

No doubt, the business models adopted by the three news organisations shaped their innovation decisions. There were three critical issues in this regard.

First, the business models directly impacted the newsroom structures and online production. For instance, *Almasry Alyoum* and *Almassae* were predominantly reliant on print sales and advertising revenue. Hence, they were more economically fragile compared to *Aljazeera*, which had financial support from the state and the Emir. The market changes that took place in the aftermath of 25 January 2011 pressured the newspapers, and in turn the online portal, to cope with increasing competition for political news provision. For instance, the drop in circulation revenue of *Almassae* paper as a result of the detention of *Rachid Ninni*, destabilised the newsroom's structure. That economic pressure was hardly affecting *Aljazeera*, which still progressed to launch new

language TV channels (including *Aljazeera America*) and upgrade its social media, despite the drop in its viewership since 2011. The state's strong investment in *Aljazeera* was keeping the newsroom stable.

Secondly, the primary source of revenue sustaining digital and online innovation in all three cases was from traditional media. Digital advertising in the Arab World is as yet small; only 4% of total advertising spending in the region in 2011 was digital – the smallest share globally (Bin-Fahad et al., 2012). Although these figures were slowly changing during the research period, particularly with the booming of smartphones and tablets, management decisions to invest in the portals' development and the wider digital services, were primarily based on a 'sense' of their future worth. Online journalism was considered the trend and the future. This meant that the portals' multimedia developments were the first department affected by any economic turbulence in the organisation.

Consequently, the business models adopted by each of these newsrooms shaped their affordances and their innovation strategies. For instance, having only small amount of excess income for the portal's investment meant leaning more toward 'open-access' and free technology in the cases of *Almasry Alyoum* and *Almassae*. It also meant working with smaller and less technologically sophisticated tools such as handheld 600 EGP cameras to produce videos.

Meanwhile, *Aljazeera*'s multi-million portal budget sustained by the government meant that, even when the portal's traffic and TV audience viewing dropped, it had no problem in continuing its portal's innovation plans. Money was seldom mentioned as a challenge.

The financial independence afforded by the business models of the newsrooms had a direct effect on innovation.

7.3.1.3 Composition and Culture of the Newsroom

Another striking aspect across the cases is how the geography of the newsrooms, as well as their composition, impacted the dynamics of innovation and communication within these newsrooms. For example, *Aljazeera* Net was located in a separate building from where both the English portal and the New Media Department were located. This was observed to add to the lack of synergy between the former and the New Media team.

Similarly, it was noticed that, once the multimedia team of *Almasry Alyoum* relocated in the print newsroom, the dynamics of communications and synergy between the two teams increased. For instance, interviewees reported that embedding videos with related news stories, which was lagging by the end of 2010, markedly improved after merging the two rooms. *Almassae*'s portal staff was in the heart of the print newsroom, which was also observed to have made communication smooth and fluid. For instance, changes to any portal errors or technical suggestions were directly and verbally shared with Kaoutar, the entry person. These observations show that face-to-face and direct communication still remained an effective element in the newsroom operations; more importantly, geographic convergence impacts innovation and multimedia production perhaps more than technological convergence. Even with technological artifacts present, the social and personal human interactions were seen as key factors in determining the success of innovation adoption and implementation.

Another related element is the newsroom internal politics and communications among the different innovation agents, which shaped the innovation processes. The observed cultures in the three newsrooms were distinctly different. The varying newsroom innovations are a result of the demographic characteristics discussed in section 7.2.4., but they are also the product of cultural homogeneity within these newsrooms. For instance, while *Almassae* and *Almasry Alyoum* were predominantly composed of local nationals,

Aljazeera Net, as a Pan-Arab newsroom, was formed with a hybrid of 20 Arab nationalities. Moreover, the wider *Aljazeera* Network – including its IT and NMD teams – hosted a wide variety of international staff. This diversity was seen as an element buttressing at times, and exacerbating at others, the innovation dynamics. A culturally vibrant newsroom such as *Aljazeera* brings more staff competition and diversity of experiences. A wide array of perspectives in the newsroom shaped the visions of technology, the conceptions of the ‘Arab users’ of the portal, and the wider online journalism. On the other hand, staff nationalities were observed to create some social tensions within the newsroom, particularly given the subtle political rivalries and conflicts between Arab nations. In addition, stark cultural differences between the Pakistani-British NMD head and the Palestinian and Mauritanian seniors at *Aljazeera* Net was reported to have been among the reasons why ideas from NMD were more often implemented on the English portal than on the Arabic portal (see section 7.3.1.3). Mentions of ‘they prefer to deal with iHorizon Arabic people’ or ‘the business owners of the two portals are different’ were whispered in interviews. Although, it is also possible that management styles and interpersonal differences are related to the lower interactions among the NMD and *Aljazeera* Net teams; it is possible that cultural differences added an additional complication to the interpersonal communications among the staff in both newsrooms.

Within the organisational work cultures common across the cases, was a number of characteristics that either inhibited or motivated innovation adoption. Among the motivators were the high agency of young and technologically zealous staff members, who helped push ideas up. In contrast, traditional routines and conceptions hindered implementation. Some staff members at *Almassae* rarely used their emails, while many at *Aljazeera* Net – coming from print journalism – complained about the difficulty of handling the workflow using the current news management systems. ‘Some of our staff

still use *dashd* (an old type of print paper used for drafting stories) in writing their stories; they can't handle a content management system. It takes time to change their habits and train them to use technology,' explained one of the senior management at *Almasry Alyoum* (Personal interview, 16 September 2010). Table 14 presents a summary of the key newsroom organisational characteristics that shape innovation.

Table 14: Organisational Motivators and Inhibitors to Innovation

Factor	Motivators of Innovation	Inhibitors of Innovation
Management Style	Autonomy lead to motivation; Incentives to staff increase innovativeness and reflexivity	Vertical management kills staff innovation
Age	Young agents push new ideas	Persisting traditional media conceptions and routines
Culture	Diversity	Cultural differences, interpersonal conflicts
Size	Smaller groups have more flexibility	Centralisation
Business Models	Sustainable revenues; Low budgets could lead to creativity (e.g. use of open-source, freed technology)	Circulation/revenues drop could kill innovation implementation
Newsroom Composition/ Geography	Proximity of multimedia; editorial and IT teams enhances innovation	Internal politics

7.3.2 Political

Most research on newsroom innovations has focused on the internal newsroom factors that shape innovation decisions and impact implementation of innovations. This is understandable given the strong foundation of sociological scholarship proving the merits of studying the internal dynamics of the newsroom that impact journalism. However, the findings of the three cases indicate that there is a deeply rooted political dimension to news innovation. The political environment and its related media system, the political events during the Arab Spring, the political role the news organisations played in these

events and its ramifications for their newsrooms, were all factors that shaped innovation in these newsrooms.

7.3.2.1 Political Context

The local political and historical contexts that envelop the mediascape of any country impinges on the scope and quality of its media production. Each of the studied newsrooms operated within a wider structure of regulations, policies, political economy, and history that directly influenced their economic vitality, freedom of expression, and sometimes their audiences' consumption patterns. Subsequently, this incubating structure of the newsroom operations shaped their innovation choices and implementation processes.

Egypt, Morocco, and Qatar had restrictions on freedom of the press, albeit at varying degrees. And despite the government regulations to free the press in the past five years, all three countries witnessed cases of journalists and bloggers being arrested. Moreover, Freedom House ranks all three countries as 'not free,' with countries like Egypt, sliding back from 'partly free' to 'not free' after the political turmoil. Table 15 shows these countries' press freedom ranking, out of 197 globally studied countries in 2011 and 2013.

Press freedom is quintessential to any news organisation's capacity to survive, let alone innovate. No portal's technological innovation can work without the main news 'product'. But government restrictions, as seen in the case of *Almasry Alyoum* and *Aljazeera*, also stimulated innovation. A classic example is *Almasry Alyoum* resorting to sending two reporters to cover any political event. 'We send two reporters with mobile cameras, one gets arrested and the other does the job,' was a resonant statement by the editor-in-chief of *Almasry Alyoum* Magdy El Gallad (Personal interview, 26 September 2010).

Table 15: Freedom House 'Global Press Freedom' Ranking 2011-2013

Country	2011 Rank	2013 Rank	Press Freedom Score 2013	Freedom House Category
Egypt	146	140	62	Not Free
Morocco	150	149	66	Not Free
Qatar	148	153	67	Not Free

Moreover, government regulations on media funding and ownership is another factor. Legal and financial government restrictions on private media ownership in Egypt meant that only rich and politically connected businessmen were able to establish private newspapers or satellite channels. A case in point, in its early years *Almasry Alyoum* was near bankruptcy before the millionaire Board members saved it. Similarly, the Moroccan government, despite providing small subsidies to private newspapers, imposes heavy fines on any 'deviance.' In turn, enormous financial pressures on small and independent newspapers such as *Almassae* nearly forced the paper out of business twice. Meanwhile, *Aljazeera's* lucrative Qatari-state funding meant that the pan-Arab news organisation often was critical of all Arab states except home (Alterman, 1998; Zayani, 2005, 2013; Zayani & Sahraoui, 2007). The financial sustainability of any news organisation is a key ingredient in its ability to innovate. As seen in the case of *Almassae*, losing revenues, as a result of arrests or of heavy economic penalties, put an end to its portal's development. This is especially since the online revenues in all three cases are very slim, and their portals' survival still remains heavily dependent on the larger news organisation's income.

The current political context is not the only factor shaping the newsroom. The political history of each of the three countries, and the resulting cultural residues, have also had their marks on these newsrooms' innovations. For instance, the long French colonisation of Morocco influenced the 'language of innovation' of national newsrooms such as *Almassae*, where staff not only used French in their technological artifacts and processes, but were inspired by French newspapers online design models (see page 144). Similarly,

Qatar and Egypt's long British colonisation greatly shaped the culture of innovation inside the two newsrooms toward Anglo-American models of innovation. Examples include *Almasry Alyoum*'s strong partnership with *The Guardian* and *Aljazeera*'s heavy reliance on American and British servers, design models, and even staff.

7.3.2.2 Political Crisis and Newsroom Innovation

The uprisings that erupted in Tunisia, Egypt, Libya, Bahrain, Yemen, and Syria and to a lesser degree in Jordan, Morocco, and Saudi Arabia since 2011, have provided a strong prism to magnify the role that the political environment plays in innovation. There are three particular key observations.

First, the political crisis offered a glimpse of the times when innovation succeeded or failed as a result of the political setting surrounding these newsrooms. The ramifications of the uprisings on innovation varied across the three case studies. The political factor accentuated the innovation cycle and intensified adoption in some instances, but exacerbated the cycle and slowed implementation in others.

No better words express what many news staff members feel about innovation in Arabic news organisations than those of one senior journalist at *Aljazeera* Net:

The Arab World recedes from the Western world [in technology], not because it is unfamiliar with technology but because it is fraught with events. When you are charged with political events in a media work place, the technological development that accompanies this media becomes slower... If today we want to introduce a new service [or] a new technology, and a war erupts in the region, all this [effort] will be blown away [e.g., swiped], because we have priorities. (Personal interview, 13 June 2010)

Each of the three case studies presented a different manifestation of how the political crisis inhibits news innovation. First, following the February 2011 demonstrations and the news organisation attack on government officials, the Moroccan state's detention of *Almassae*'s editor in chief – Rachid Nini – crippled the financial capacity of the news

organisation to pursue a number of its portal developments. Two years after the 2011 arrest, www.Almassae.ma multimedia design and services had hardly evolved. The drop in circulation and the resulting economic damage caused by losing the newspaper's main columnist and chief of editing, struck most the portal's ambitious plans.

Meanwhile, the intensive coverage of the Egyptian revolution on 25 January, and the related state closure of the *Aljazeera* office in Egypt, directed the efforts of the newsroom to cope with the portal's challenges at the expense of adopting new multimedia innovation ideas in the pipeline. For instance, the portal's new content management system was put on hold as the technical team's attention was directed to stabilizing the site against the sudden high traffic volume and hacking attempts.



Figure 28: The Internet Archive records design peaks in the three portals since 2011¹²⁵.

¹²⁵ Source: The Internet Archive – 2 April 2013

Aljazeera's immediate reaction to the technological challenges arising from the crisis in such instances can be called 'defensive innovation': *Aljazeera* Net deployed its resources to protect and stabilize its online presence, rather than provide novel multimedia services or content.

In both cases, there is no doubt that the political news crisis disrupted the regular flow of innovation processes for their portals. As Ragheed, the iHorizon system analyst puts it, 'because of the speed of events during that period, it was very difficult to develop new things' (Personal interview, 2 March 2012).

In contrast, in the case of Egypt, the 25 January 2011 mass demonstrations and the government's unprecedented reaction to pull the Internet plug of the country, rendered all news portals in Egypt dead except *Almasry Alyoum*. The crisis, and the pressing newsroom need to depict the political events motivated the team to re-plug the portal online from another location. This immediate reaction to the events could be called 'defiance innovation': the newsroom deployed its resources to defy current technological challenges imposed by the regime. Moreover, despite the portal facing the same traffic overload challenges as *Aljazeera* Net, *Almasry Alyoum*'s 'direct access to the events enabled the production of multimedia content, such as mobile-held videos, which in turn inspired the decision to broadcast video content on the site.

7.3.2.3 Cost of Taking Sides in Political Conflict

The second clear observation across the cases, that the three news organisations have become players in the news they cover – their coverage has become part of the political conflict as they became political actors in the events themselves – and which in turn has had its consequences on their newsrooms. In the three cases, the editorial stance of the newsroom both 'impacted' the political scene, and eventually caused its news

organisation some repercussions. Each of the three news organisations had a clear political stance during the uprisings. Moreover, the intensity of political events exacerbated media polarisation in the Arab World, and challenged the media professionalism of these news organisations. Indeed a more systematic content analysis is necessary to assess the exact framing of news during the Arab Spring, and make any generalisations about the political stance of these news organisations – something that is beyond the scope of this thesis. However, interviews with the newsrooms and the observations of the news portals' content since 2009, reveal that the three newsrooms' editorial lines have favoured a particular political side during the events and one which impacted their editorial production.

For instance, hosted by an independent newspaper, the *Almassae* editorial line is critical to the Moroccan government and to supporting the February 2011 protests in Morocco. Meanwhile, *Aljazeera* Network is widely perceived as adopting an editorial line that is critical to Arab autocratic regimes (Barkho, 2006; Zayani, 2005, 2013) – particularly the Mubarak regime – and that favours Islamist groups such as Hamas and the Muslim Brothers. This explains the Network's framing of the 25 January 2011 uprisings that ousted Mubarak's regime as a 'revolution,' while framing similar uprisings of 30 June 13 that ousted the Muslim Brothers-Morsi regime as a 'coup d'état.'

Almasry Alyoum also had a political stance. The organisation's editorial line was liberal, critical to Mubarak, and clearly supported both the 25 January 2011 and the 30 June 2013 uprisings. Beginning in March 2011, the news organisation even started to engage directly in politics – hosting political debates and media movements. Moreover, the news organisation's editorial line became more critical of the Egyptian Senior Council for Armed Forces (SCAF) – which held power for a year and-a-half before proper

presidential elections were conducted – and equally cynical of the Muslim Brother-led President Mohamed Morsi.

Consequently, the three news organisations were affected by politics in one way or another. *Aljazeera* bureaux in Cairo were shut down (on both 25 January 2011 and 30 June 2013), its reporters were arrested, its audience viewing plummeted, and its portals were hacked. *Almassae* lost its most lucrative revenue after its renowned editor-in-chief and daily columnist was arrested by the Moroccan state. *Almasry Alyoum*'s reporters were arrested; its portal's production was disrupted when the state unplugged the Internet in Egypt on 28 January 11, and its editor-in-chief left (reportedly as a result of banning an anti-SCAF article from publishing in March 2011).



Picture 15 A banner in Tahrir reads 'A bullet may kill a person while a lying camera kills a nation'¹²⁶

The ramifications of the news organisations' political stance directly influenced the innovation decisions in all three cases, and in some instances speeded innovations

¹²⁶ Reflecting popular anger at Aljazeera pro-Islamists bias in covering the uprisings. Picture Copyright @almasry alyoum

processes, whilst in others slowed them. As chapter 5 and 6 discussed, the Internet cut led to innovative measures to find alternative Internet access, as well as to move toward citizen and mobile journalism, both in the case of *Almasry Alyoum* and *Aljazeera*. In contrast, *Aljazeera*'s editorial line has led to hacking attempts. In 2012 and 2013, the Arabic portal's traffic also dramatically dropped amid antagonising reactions to its reportedly biased coverage. Meanwhile, the sharp cut in *Almassae* print circulation paralyzed its capacity to develop its online website.

Constantly charged with crisis, the political environment in the Arab World has become an inherent part of the media fabric in the region. As the three cases revealed, this political context not only shaped the editorial decisions within the newsrooms, but also impacted their innovation processes, decisions, and technological adoption. These empirical findings could bring about what the researcher calls the 'political construction' (and destruction) of innovation.

7.3.3 Technology and Industry

Another key factor driving innovation within the newsrooms is the news technological developments taking place in the media industry. Across the three cases, conceptions about ideal designs and technological artifacts that shape the innovation visions of the newsroom – in particular those of the key change agents (e.g., technical teams and senior managers) – were predominantly influenced by what other competitors were doing, as well as the wider IT advancements. A striking pattern across the three newsrooms was the close following of the latest advancements in technology and news production. Whether the technical team was made up of one or a dozen members, it was abreast with the latest world technological developments, as well as online news industry developments. For instance, *Aljazeera* and *Almasry Alyoum* periodically attended international media and Internet technology conferences and exhibitions.

The inherently online nature of this industry made knowledge acquisition accessible, affordable, and fast, even for less resourced newsrooms. For instance, all teams followed on Twitter, mailing lists, and portals the technology trendsetters and famous international companies. But following the industry, although it was a standard motivation across the newsrooms, was largely shaped by two key factors.

First, sources of industry technological development were influenced by the newsroom culture – the wider national and historical heritage that determined the culture embedded within each newsroom, both collectively and individually. For instance, the language heritage of each country, as well as the language education of the technical team members and senior management members, influenced their perception of the ‘ideal’ sources of technological advancement. In Morocco, the Francophone influence reflected on the reliance of the technical team on French news portals; they closely followed French and sometimes Spanish news portals and forums. Meanwhile, Egypt and Qatar, both having a long history of British colonisation and strong alliances with USA, were more influenced by Anglo-American news portals.

Meanwhile, a regional pan-Arab newsroom, such as *Aljazeera* Net, was shaped by a variety of Arab cultures, including the Francophone culture of journalists coming from the Maghreb or Levant regions. Similarly, Egypt’s newsroom had a few staff members with French educations. Nevertheless, in both cases, the technical teams were the key change agents influencing opinion leaders when it came to suggesting technological innovation, and were primarily Anglo-American influenced.

The second characteristic is the growing imitation of local and regional competitors. Copying multimedia artifacts between Arab news rival portals was noticeable in the qualitative observation of key Arab portals beginning in 2010, especially starting 2012.

The anxiety of losing online traffic to competitors was also reported across all cases in interviews as a key driver of innovation. Bringing new services, better services, and more attractive designs than ‘others’, was a repeated motto among journalists and management. This seems to support recent research about the growing imitation of journalism in the age of information abundance and fierce news competition (see, for instance, (Boczkowski, 2010). As communication networks become denser and competition becomes stronger, the pace of diffusion processes of multimedia technological advances within similar newsrooms would become faster.

7.3.4 Users

Closely related to the industry is the fourth common factor driving innovation: the users. Across the three newsrooms, users strongly influenced the visions of technology and determined the adoption of any technological innovation. The readership data, the data about users’ opinions, and staff conceptions about the users were all part of a ‘users-producer nexus of innovation.

The three news organisations regularly followed the users’ behaviour on their portals through Google Analytics. In addition, *Aljazeera* and *Almasry Alyoum* also employed advanced dedicated social media tools to elicit users’ demographics, preferences and behaviour on these platforms. Similarly, numerous ‘contact us’ emails supplied by the newsrooms provided a direct and fast tool for users to report any technical or editorial issues.

User traffic data were not the only data some newsrooms were keen on collecting. *Aljazeera*, for instance, was interested in exploring intelligence data on users’ opinions at a more localised and sophisticated level. The *Aljazeera* team was keen to know who thinks about what and how, through social media analysis tools. Although it was not clear

how these intelligence data would shape the newsroom editorially, interviews suggested that the team plans to use these to provide a more customised digital experience for users. For instance, there was no systematic streamlining of this data into the editorial and innovation cycles.

Nevertheless, despite the absence of a full-fledged and systematic integration of users' data into the editorial and innovation cycle, observations and interviews indicated several instances where the three newsrooms' exposure to users' data influenced innovation decisions. At varying learning curves, they are increasingly tapping into what users do and want. The general trend signals a closer user-producer relationship, in which these news organisations strive to be ahead of the game attracting users and satisfying their needs.

7.3.4.1 Conceptions and Data on Users

Lastly, the conceptions of the newsroom staff about the users were another influencer on the innovation process. It is interesting that, when asked about how they 'picture that online reader' especially compared to broadcast or print, the answers within each newsroom were never unanimous. For instance, some saw the user as 'sophisticated' and politically informed readers, others as 'young and politically active' users. These conceptions differed slightly the further the staff member was from the actual user data collected. This is why the technical staff, who were more exposed to traffic data, had a more accurate representation of users than some of the editorial staff.

Looking into how this relationship affected innovation choices, it was observed that users' problems with the portals had priority when it came to deciding which resources were to be allocated to new artifacts. For instance, users' problems in accessing the portals or interacting with the contents often took precedence over internal complaints

about problems related to the back-end technology journalists struggled with – such as the dashboard of the portal or the news management system (NMS) and the related workflow. Moreover, although the three newsrooms differed greatly in their human and financial resources dedicated to multimedia development, they shared a keenness to provide something ‘extra’ that could keep the users on the portal longer. A case in point was an *Almassae* <http://issuu.com/Almassae> service that enables readers to browse the print copy of the daily paper; in addition to the provision of the PDF version of the print online – a request demanded by some users living outside Morocco. For the same reason, *Almasry Alyoum* provided a dedicated ‘shovel copy’ of its print online at today.almasryalyoum.com, to cater to users who still wished to view the print version ‘page by page.’ Additional services included prayer times, travel times, the weather, exchange rates, gold prices, etc.

The precedence of meeting users’ demands was primarily motivated by business competitiveness; more users staying longer and interacting more with the portal meant more ad revenue. This was repeatedly mentioned in all newsrooms.

7.3.4.2 Difference of Internet Uses in the Arab World

Despite being the drivers of innovation within the newsrooms, users sometimes were the inhibitors of it. Internet users in the Arab World had discrepancies in their access, literacy, and freedom, not only compared to Western countries, but also within Arab countries. For instance, Gulf countries or Arab users in diaspora have several times more broadband speed than other countries. The Internet bandwidth ranges from 4 GB/sec to a few tens of KBs per second across all Arab users. Meanwhile, some features provided by websites – such as Web 2.0 services – were not used by users, simply because they were not understood. Users’ access and literacy discrepancies pose a dilemma when deciding

on technological innovation. One member of the technical staff team reflects what the three newsrooms face:

The Arab World in general has been very slow in embracing this [technology]. The people have obviously embraced social media and you can see that there are so many bloggers, and all these different little companies are evolving. The population, particularly youth, are embracing the technology very quickly. But a lot of the institutions are more cautious and hesitant. (Personal interview, Head of New Media Department, 14 June 2010)

This reveals the struggle the team faces when it comes to adoption of new technological trends – the hard choice it makes between satisfying the increasing number of Internet-savvy followers and the need to reach the widest Arabic-speaking audience online, some of whom are still lagging behind.

Unfortunately, there is a large gap between the poorest and the richest Arab countries, to the extent that we sometimes get frustrated. We are trying to reach the lowest but you find those with the highest [access] who see the portal the most often. ...we get criticised by Arab users in Germany, Canada, or the USA [asking] ‘why aren’t you using a new design?’ (Personal interview, Technical Staff, 8 June 2010)

One example was the issue of using videos on the portal, when some users still use dial-up connections to access the Internet, which led *Almasry Alyoum* to change its video size several times. The decision was taken to limit the video length and quality in order to enable a wider audience to view them. Similarly, *Aljazeera* Net’s decision to include podcasting came nearly two years later, since the majority of ‘users were not there’ yet.

Another example was the persistence of PDF version of the newspaper print issue in the cases of *Almasry Alyoum* and *Almassae*, as requested by users, particularly those in diaspora and who do not have access to the print copy. *Almassae* even went further to provide an ‘electronic magazine’ format of its print copy using the free online tool ssuu¹²⁷ to provide a bridge between the shovel-copy of its print that traditional users still prefer and the online platform.

¹²⁷ <http://issuu.com/almassae/docs>

7.3.4.3 Citizen Journalism

One of the key emerging trends that were noted across the three newsrooms is the growing reliance on citizen journalism and social media, especially since 2011 as the political crises intensified. This was characterised by two aspects. The first was the features enabling users' interactivity with the news, especially on and through social media platforms. The three newsrooms had created and maintained a social media persona to serve as a distributing platform for their portals' news content, as well as enable feedback and news contributions from users on these platforms. *Aljazeera* and *Almasry Alyoum* had multiple Facebook, Twitter, YouTube, G+ accounts, all of which were visibly promoted on their news portals and moderated by a dedicated team.

The two portals additionally displayed a live Twitter feed widget on the front page as in the case of *Aljazeera* as of 2010. *Almassae*, meanwhile, had one Facebook page, one Twitter account, and one YouTube Channel, which were supported part-time by one journalist and the content entry person in a more sporadic fashion.

The three sites also embedded (albeit to various degrees) some social 'sharing' features on their news articles. For instance, both *Aljazeera* Net and *Almasry Alyoum* enabled users to post comments directly using their own Facebook, Google+, or Twitter accounts. The Moroccan *Almassae*, in contrast, sufficed to have a Facebook sharing widget on its news articles (since users' comments were not enabled on its news articles).

Table 16: Comparison of Citizen Journalism Features across the Portals

Citizen Journalism Features and Services	<i>Almassae</i>	<i>Almasry-Alyoum</i>	<i>Aljazeera Net</i>
Interactivity			
Enabling free commenting	X	X	X
Enabling commenting through user registration or social media sign in (Facebook, G+..)	X	✓	✓
Discussion Forums	X	✓	✓
Enabling sharing and 'like' of news stories via email and social media (Facebook, Twitter, G+)	X (only fb)	✓	✓
Polls /Opinion surveys	X	✓	✓
Organizing 'one hour' users-reporter live interaction	X	✓	X
Users-Generated Content (UGC)			
Publishing users Micro-Blogs	X	✓	X
Using accredited UGC in news stories (e.g., videos, pictures, etc.)*	✓ (videos)	✓	✓
Hosting service on portal for users to develop and share their own content (stories, cartoon, videos, pictures, etc.)	X	✓	X
Hosting a 'live blog' for users' social media feeds.	X	✓	X
Making news stories out of users Tweets and FB**	X	✓	X
Citizens Journalists Capacity Building			
Training for bloggers	X	✓	✓

* News stories included interactive maps displaying reports from citizen journalists

** Tweets or Facebook posts that make it to the news headlines are often those of celebrities and political leaders.

The second aspect was the reliance and motivation of user-generated content (UGC), especially as a result of the political uprisings. Among the three newsrooms, *Almasry Alyoum* had the largest share of citizen journalism features and services, followed by *Aljazeera*, then *Almassae*. As Table 16 shows, *Almasry Alyoum* had the highest number of services enabling interactivity, User Generation of Content (UGC), and citizen journalist training.



Picture 16: 'Direct Blogging' is featured on the left side (in red) of the front page.¹²⁸

For instance, services such as 'Sharek' that enabled users to create their own news content (e.g., CMS for stories, videos, and pictures); interactive maps feeding live coverage from users during elections or key protests; or the live blog page that enabled live Facebook and Twitter feeds from users, are but some of the investments the portal makes to elicit citizen journalism. The organisation is also keen to display UGC (such as cartoons and videos) on the front page of the portal; and dedicates a forum page to users. *Almasry Alyoum* went a step further to train citizen journalists on how to become better journalists, including training on how to capture video and audio bites effectively. *Aljazeera* Net came second after *Almasry Alyoum*, and although it did not have a direct

¹²⁸ The service integrates registered users live social media feeds on current political events. This was the first micro-blogging service provided by Arab news portals [Last captured on 11 Jul 2013]

channel displaying user content, intensively used UGC (with appropriate copyrights) to complement its news content during the 25 January Egyptian revolution. The online newsroom was also among the first in the region to start Online Journalism Forums.

Undoubtedly, the growing tendency toward using users, both as agents of distribution and sources of content contribution, has largely been driven by a growing awareness of the role and ubiquity of social media and citizen journalism. The words ‘tapping into the community’ and ‘building a community’ were repeated in interviews across the three cases. There is a growing need among the news organisations to enhance their brand and user loyalty, particularly in light of the attention deficit of online users. In addition, the political repercussions for the newsrooms led to pragmatic and desperate measures to find news content. For instance, as seen in the case of the Internet shutdown in Egypt and the suspension of *Aljazeera* bureaux during the 25 January 2011 revolution, the events put tremendous pressures on the newsrooms to seek alternative news content and distribution platforms. Moreover, the eruptions of the Egyptian uprisings at different locations simultaneously, challenged the physical and temporal capacities of reporters to cover the events.

Clearly, the size and innovativeness of each organisation had played a major role in the openness and adoption to citizen journalism. It was also apparent that *Aljazeera* Net’s traditional and deeply-rooted print routines made it less plausible to accept citizens’ content. Moreover, issues pertaining to the legal frameworks of each organisation impacted the decisions to publish UGC on the site. For instance, *Almasry Alyoum*’s adoption of a creative commons policy of publishing reflected on its openness to citizen journalism. In contrast, *Aljazeera* Net’s strict legal rules of copyrights hindered publishing user content. That said, as discussed in the *Aljazeera* Net case, the political crisis during the 25 January uprisings did shift the bar slightly for the newsroom.

7.3.4.4 Narrowing the Gap between News Users and Producers

Closely related to move toward citizen journalism and the blurring line between mainstream and citizen news, is the relationship between the users and the newsroom, and the way data about users and their opinions shape newsroom decisions. Interviews and observations across the three cases showed a growing trend toward ‘users.’ Section 7.3.4 discussed the characteristics of a ‘users-driven’ innovation. This section discusses the implications of that on the practice of journalism and the final news.

First, all three newsrooms showed avid keenness toward ‘listening’ to users’ opinions. The different technological and editorial changes introduced ensured these opinions are channelled systematically into the news cycle. For instance, the *Aljazeera* Net and *Almasry Alyoum* user feedback teams regularly feed users’ emails, news comments, and requests to the editorial newsroom. Additionally, journalists and editors regularly scan users’ commentary on their stories on a daily basis. Meanwhile, even though the portal doesn’t enable direct commenting, the *Almassae* data entry person daily shares users’ comments on stories sent via email, with related journalists.

This process has also been streamlined, not only on the editorial level, but also into the innovation cycle. Occasional online surveys and suggestions made by users often provide strong direction to the newsroom on needed portal developments. *Aljazeera* went even further in ‘opinion mining and sentiment analyses,’ as it explored technological tools that can inform its editorial line, and enable political and geographical customisation of its news – a project that was starting by the end of the research period.

7.4 Comparing Rogers’ DoI Model to the three Newsrooms

The study analysis contrasted the cases with the five stages of the innovation diffusion process identified by Everett Rogers (1962): awareness or *knowledge*, *persuasion* of the

idea, evaluation and *decision, implementation* or trial, and finally, *confirmation* of adoption. Rogers posited that, when individuals or groups make decisions to adopt and use something new, they follow this process.

The Diffusion of Innovation (DoI) approach considers culture primarily as an influence that helps to speed up, slow down, or bring about the rejection of an innovation (Rogers, 2003: 1-3). Rogers' model was thus useful in examining the general process of innovation diffusion in the three newsrooms.

The five stages were all identified in the cases, albeit in varying degrees. The first stage – that is, knowledge about the innovation – was naturally acquired by the three newsrooms. As section 7.3.3 illustrated, the newsrooms' strong ties to communication networks of news technological innovations, and their diligent following of competitors, kept them abreast of the latest multimedia artifacts. Some, like *Aljazeera* Net, had been innovators themselves and drove this knowledge, by introducing pioneering multimedia artifacts. For instance, *Aljazeera's* voice-to-text service provided transcripts of broadcast programmes to users who prefer reading – an unprecedented innovation in similar news portals worldwide. Similarly, the phone voice-news alerts by AMAY had not been applied previously in Egypt.

Similarly, the second phase – that of persuasion or formation of favourable or unfavourable attitudes toward adoption – was also present across all cases in how the dynamics and pace of this stage differed in each case. As discussed earlier, financial and time affordances, organisational innovativeness, and staff alacrity in adopting new technologies all shaped the persuasion level of the organisations' opinion leaders. This stage was noted to be longer with a more centralised and larger news organisation such as *Aljazeera* than in small and medium-sized organisations such as *Almassae* and AMAY.

For *Aljazeera*, most ideas had to be followed by an extensive feasibility study and budget. Although the other two also did this, they were at a much smaller and ad-hoc level than *Aljazeera*.

The third phase, related to the adoption or rejection decisions, was also applicable to the cases. In all cases, opinion leaders had to decide two important aspects about any multimedia innovation: *whether* it could be applied, but more importantly, *when* it could be applied. Implementation decisions were not unilinear or straightforward, and many ideas were approved, but not considered implementation priorities for a variety of reasons. A case in point is the *Aljazeera* delay of deciding on adopting tablet device technologies, despite the persuasion, due to the lack of user demand.

Fourth, the implementation phase described by Rogers was an obvious consequence for the above stages in all newsrooms. However, again, the pace and path of implementation were dependent on the aforementioned political, organisational, technology, and user factors. For instance, for nearly three years and despite available finances, *Aljazeera* did not implement a CMS despite the approval of the artifact, due to the reluctance toward changing the workflow, particularly during the Arab Spring. Similarly, *Almassae's* limited financial affordances meant that its convergence and multimedia innovation plans were entirely halted. This relates to the fifth stage, which is the confirmation and reinforcement stage. Like the other stages, the industrial and political factors slowed or speeded up or slowed reinforcement. For instance, *Aljazeera* Net had planned a video production studio since 2011, but due to traditional routines and growing newsroom crisis during the coverage of the Egyptian revolution, this plan was postponed.

Although these stages were useful in attempting to dissect the process of innovation, they were not very helpful when it came to the dynamics of interactions among the newsroom

actors, or the wider context – whether social or political systems – the news organisations operate within. They became particularly problematic given the cyclical and metamorphic innovation process identified in the three cases. Moreover, as this chapter has demonstrated, the sequence and length of these stages varied dramatically in each news organisation, depending on the key actors driving its innovation at the time.

For instance, the financial crisis in the case of *Almassae* stopped the process at the decision level, in spite of the ‘buy-in’ or persuasion of the key change agents to pursue new portal developments. Meanwhile, during Egypt’s Internet block, both *Almasry Alyoum* and *Aljazeera* lacked prior knowledge to handle such a situation, and there was no prior conception of a ‘need’ to fill. Nevertheless, the team experimented on-the-spot with innovative ideas, and once a solution (in that case finding an Internet live place) was found, stage 2 of persuasion and stage 3 of decision were surpassed, as the middle management took a spontaneous decision of implementation, even before approving budgets. The case of *Aljazeera* during the same event was the opposite. The Internet block, the hacking and the portal’s overload slowed the chain of adoption tremendously, as all resources were focused on ‘survival’ of the portal. In addition, like *Almasry Alyoum*, the team experimented with citizen journalism through ‘trial and error’ – rather than prior knowledge. In other words, the time for developing knowledge, persuasion, and decision contracted, as the crisis enforced instinctive and rather spontaneous reactions by the organisation.

7.4.1 An Alternative Multimedia Adoption Model

This study proposes a model that builds on Boczkowski’s earlier conceptual model for the multimedia adoption process.

Boczkowski's earlier suggested model was found very useful in understanding the dynamics involved in the process of adoption, albeit insufficient in understanding the Arab newsroom cases. Figure 29 illustrates the production factors, technological developments, and users' representations that shape adoption – all important elements which were echoed in this research across the cases.

Processes of Adopting Multimedia and Interactivity

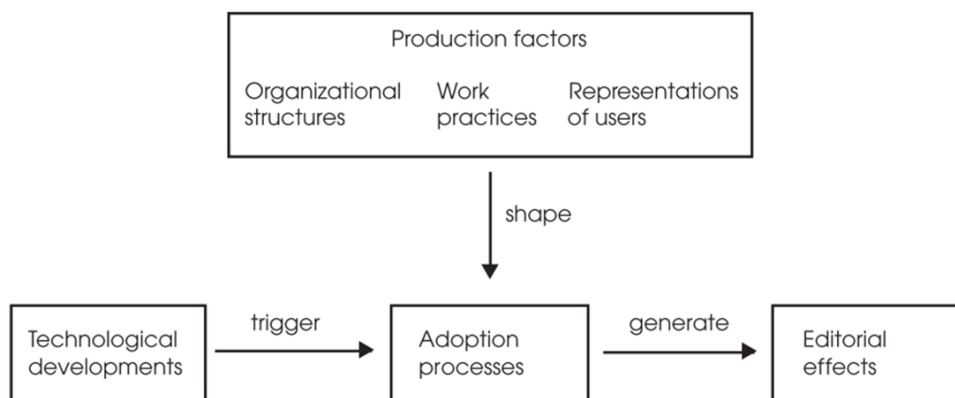


Figure 29: Boczkowski's model of multimedia adoption processes (2004b: p 199)

Nevertheless, Boczkowski's model disregarded the political factor when analysing the general production and organisational aspects that shape the multimedia adoption processes. In each of the three cases, the empirical findings reveal that the national political environment influences news organisations in ways that shape their visions and adoptions of innovation. Moreover, as discussed in the chapter, crisis – and especially news organisations taking sides in a political crisis – has repercussions for the economic, temporal, and technical affordances of these organisations. In some instances, it affects their financial or physical capacity to integrate or implement innovative ideas. In others,

as in the case of Egypt on 25 January 2011, crisis affected the stages of adoption. In particular, it called for immediate decisions often bypassing the ‘persuasion’ and ‘confirmation’ stages. Examples included troubleshooting the website hacking for *Aljazeera*, reverting to mobile cameras in *Almasry Alyoum*, and relocating to a hotel room to broadcast the portal.

This research therefore proposes a more comprehensive model¹²⁹ (see Figure 30: An alternative multimedia adoption model) to assess newsroom innovation adoption which considers the aforementioned four key drivers shaping adoption.

Suggested Multimedia Adoption Model

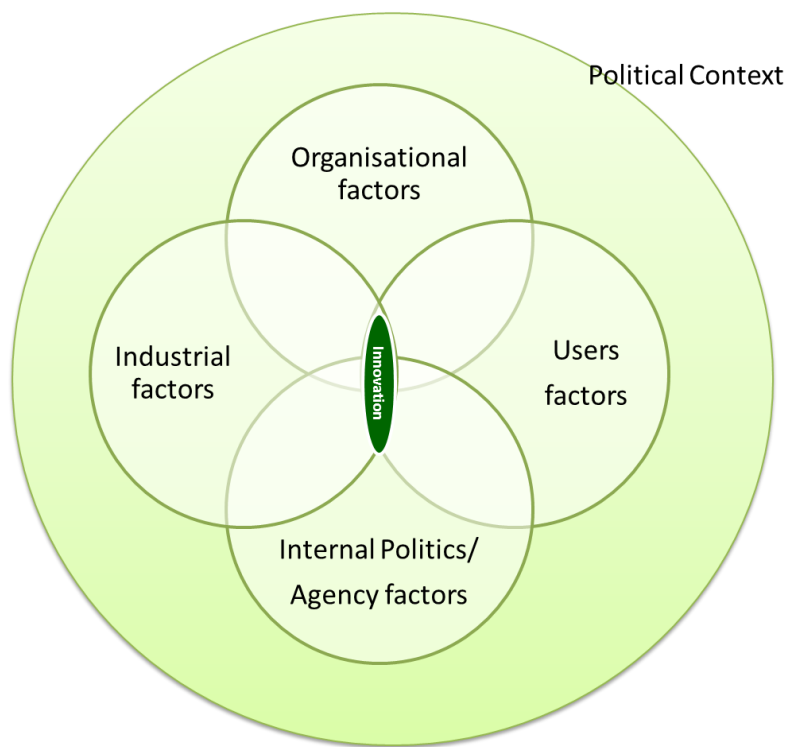


Figure 30: An alternative multimedia adoption model

¹²⁹ Annex 8 also illustrates a more complex model showing the particular factors cases.

This model differentiates between the material factors – such as the organisational resources, staff structures, size, and composition – and the non-material social factors. The social factors consist of factors internal to the newsroom, such as the influence of internal agency and opinion leaders, the media logic and industrial factors driving innovation (such as technology development, what competitors are doing, etc.), and the users (representation and data) shaping innovation demands. The external factors then include the historic, cultural, and political context of each newsroom locale. It also includes the news events unfolding around the newsroom.

This model proposes a *cyclic* rather than unilinear process of adoption stages proposed by earlier scholars – one that constantly evolves in *metamorphic* form through the simultaneous development and interaction (and tension) between those variables, rather than linear stages. It also acknowledges that the adopted multimedia artifacts are not fixed, but constantly shape their material characteristics. Multimedia artifacts are adapted to each newsroom's needs, visions, and practices.

7.5 Conclusion and Discussion

In summary, the three cases highlight a number of patterns that are characteristic of the innovation processes, from the conceptions of ideas to the implementation and adaptation phases. These patterns – whether within a proactive, reactive, or ad-hoc cycle – were often dependent on the newsroom internal change actors, as well as the external environment. In particular, during the period of study, high political volatility of the Egyptian and Moroccan uprisings forced these newsroom innovations to move in many ways, sometimes changing pace and direction. This was a typical characteristic of news organisations' action in volatile economic and political environments, which emerged as a response to uncertainty in a context perceived as constantly and rapidly changing.

The diffusion of multimedia innovation in each of the three studied newsrooms was not a process existing in a vacuum. It has been shaped by social, political, organisational, economic, and techno-industrial factors that influenced both the pace and the direction of adoption. As the chapter showed, the organisational structure, size, business models; as well as the dynamics of interactions and communications within their agents, influenced their decisions of adoption and implementation processes. The cases also showed how the growing attention to and conceptions about news users and technology adopted by competitors have shaped the visions and adaptations of media technological artifacts. These findings support previous research on newsroom innovation, which proves that organisational and technological factors shape multimedia innovation.

Additionally, the political factors – including local media regulations, government policies governing journalists, and more prominently, the wider political crisis events – had their ramifications for the newsrooms' innovation choices. Although this finding cannot be singled out from the other social and economic factors, it proposes strong attention be given to the political dimension of news innovation in future innovation models, particularly during times of political instability and in less democratic countries.

The findings also suggest that, at the meso level, the diffusion of multimedia artifacts across news organisations is influenced by their historical and cultural contexts, as much as by their media logic. The three newsrooms were likely to imitate competitors within their local and regional culture. Western multimedia innovation models, which inspired the three newsrooms, also had particular cultural, political, and historical connections to these newsrooms; they were not selected haphazardly.

This phenomenon brings to attention the value of social dynamics that influence the construction of future multimedia artifacts, and the political and historical significance of

technological innovation. It also diverges from adopting absolute ‘universalism’ to news innovation. This is not to dismiss the global exposure and interaction that impact local online news organisations – especially given the faster and direct Internet access to media technological artifacts which is unparalleled by older media environments. It rather suggests that multimedia innovation is ‘still’ predominantly shaped by non-material, geographical, social, and cultural aspects. Moreover, it confirms that diffusion of innovation within newsrooms is far from linear or following one parabolic trajectory.

8 Chapter Eight: Discussion and Conclusions

8.1 Introduction

This study focused on multimedia innovations in three Arabic newsrooms and how the Arab Spring political crisis shaped their adoption of multimedia artifacts. It identified similar patterns of social factors shaping innovation in these newsrooms. These patterns highlighted the degree to which the political context of the Arab World cannot be ignored when studying innovation in the press and mass media.

The previous four chapters presented the three case studies – the Moroccan *Almassae* Media Group, the Egyptian *Almasry Alyoum* Media Corporation, and the Qatari *Aljazeera* Network – the research explored the different organizational, economic, cultural, political and social conditions that shaped the adoption of multimedia. They also found how important crisis-news events in the region since early 2011, and the newsrooms reactions to them, dramatically fashioned the decisions and implementation processes of multimedia innovation.

There is no single theoretical framework within which this research is situated. As discussed in the literature review at length, the study draws from a number of media and innovations literatures to contextualise its findings, including the Diffusion of Innovation and the Social Shaping of Technology constructs.

This chapter will briefly refer to the key findings of the study, following the three research questions; and discuss the implications of those findings for the construction of news online, and for future research on news innovation. It opens with a brief outline of the findings related to the processes of multimedia innovation, and the key factors shaping the adoption of multimedia. The chapter then discusses the implications of these findings for the practice of journalism and the production of news online. This is followed

by a discussion on the significance of these findings and the implications for future building of news innovation theories. Finally, the chapter discusses the limitations of this study, and the directions for future research.

8.2 The Processes of Multimedia Innovation

The first quest of this research was to identify the most significant processes and strategies that shape multimedia innovation in the three Arabic newsrooms. The study identified similar patterns of innovation processes across the cases. The innovation processes shared a cyclic rather than unilinear form; and multimedia changes in the portals (and related production practices) were incremental and metamorphic rather than sudden and drastic. For instance, major portal infrastructure redesign (as in a total portal engineering and make over revamping exercise) happened only twice since inception in the case of *Almasry Alyoum* and *Almassae* websites; and three times in the case of *Aljazeera* Net. In the meantime, and between 2010 and 2013, the three portals had introduced novel multimedia presentations and services.

Moreover, these processes were intercepted by constant newsroom reactions to inside and outside variables (discussed in the following section), which changed how each newsroom initially planned its portal's and multimedia development. For instance, planned developments and the pace of multimedia ideas changed in response to variables, such as the news crisis, staff skills and experiences, new technological developments by competitors, or new visions by key change agents (like senior management) in the newsroom. Some of these strategies were ad-hoc, *experimental* and reactive, driven by uncertainty and fear to lose market shares or users' loyalty at times, and conceptions of an *ideal* design that at others.

Chapter four highlighted how Moroccan *Almassae* still strove to adopt multimedia innovations in portal design and content, despite financial hardships, driven by users' demands and Francophone-influenced conceptions about ideal online news designs. The newsroom shifted from a 'shovel' copy of its print content to a more 'transcoded' multimedia content, resorting to free open-sourced and third-party technology to save cost.

Chapter five, meanwhile, presented how the Egyptian *Almasry Alyoum*, followed a progressive multimedia strategy that is characterised by trial-and-error and pragmatism, rather than a more systematic approach. It showed how a partnership with *The Guardian's* English model of multimedia convergence changed the pace and direction of the newsroom innovation strategy. Subsequently, *Almasry Alyoum* changed their legal entity, their newsroom structure and their production policies to enable having an online presence that provides 24-7, video and citizen journalism content on multi-platforms – a major shift from the earlier mere online copy of the daily print.

Lastly, chapter six brought the innovation experience of the Qatari *Aljazeera* Net as the largest and oldest of the three online newsrooms. It showed how its size and business model brought a much more stable and proactive innovation strategy.

8.3 Key Factors Shaping Multimedia Innovation

The second research question investigates the factors shaping multimedia and how these factors constrain or buttress innovation. The study found a number of internal and external factors that shaped the innovation processes of each news organization, and which constantly interacted as constraining or enabling forces to the pace of multimedia innovation adoption. The study also found three key conditions particular to the Arab

Spring news crisis that altered the path and speed of multimedia adoption in each newsroom.

8.3.1 Internal Factors: The Newsroom Setting

The appropriation of the multimedia technology in each newsroom was unique, and was shaped by a number of internal factors. It included material elements, such as the size, resources for technology, the composition of the newsrooms; and social elements, such as the organisational culture, the internal politics of staff interactions, and the agencies exerted by key actors and opinion leaders in the newsrooms. Moreover, conceptions about users and the models of the ideal modern newsroom also shaped innovation visions. For instance, the partnership between the AMAY's young management team and The Guardian brought about a progressive vision of 'multimedia journalism' and shaped the implementation of multimedia in the newsroom. Meanwhile, *Aljazeera* Net's case demonstrated how its large size was both a catalyst and a liability for multimedia innovation. *Aljazeera*'s unique business model afforded its portal to expand; and ensured its continuity even during low viewership times. In contrast, centralization sometimes slowed its implementation of multimedia innovations (see 6.7.2 p. 255).

Moreover, as seen in the case of *Aljazeera* Net's publishing 'textual transcript' of broadcasted programmes on their portal (See 6.10.2.2), echoes that conceptions of users paralleled with persisting print traditions amongst staff, considerably influenced the newsroom's technology appropriation. The internal factors' shaping of adoption converge with recent research on Actor's Network Theory and Communities of Practice which stressed the value of internal actors' agencies and learning processes that shape multimedia adoption (Schmitz Weiss & Domingo, 2010).

8.3.2 External Factors: The Newsroom Environment

A number of external factors to the newsroom were also identified in the cases that shaped innovation processes in the newsrooms. The three cases provided a close examination of the different historical and cultural contexts of each country; and how those differences reflected on news innovation. For instance, how varying legal and political settings impacted the wider media systems and operations in each country and, consequently, influenced the innovation in each newsroom. They also highlight the degree to which the conditions during the Arab Spring influenced the pace and direction of innovation in these newsrooms.

Firstly, the Moroccan *Almassae* case study found that a small independent newspaper was able to grapple in moving online, as it faced continuous financial and legal hardships because of its editorial line that was critical of the state. Over two years following the loss of its main columnist and owner, and as print circulation dropped, the portal evolution nearly came to a halt. This case is a perfect example of how state media control can dramatically undermine technological innovation in an independent newsroom.

Secondly, Egypt's *Almasry Alyoum* case study demonstrated how a relatively medium-sized and young organization defied technological, political and economic impediments throughout two regime changes. Despite many challenging factors such as the Internet siege, a strong political ethos and personal agency of the online team drove creative adaptation of existing technologies like video production. The case also brought out how the conditions within a volatile political scene accelerated the pace of innovation processes. The political changes since 25 January revolution in Egypt have shifted the market for political news, and propelled organisations like AMAY to step-up their online presence in order to survive. This new political economy of media expedited AMAY innovation implementation. At the same time, the political crisis disturbed the

organizational structures leading to changes in the editorial and innovation policies. Two years onwards, the *Almasry Alyoum* editorial line has become more politicized and its multimedia storytelling is more apparent than ever.

Thirdly, Qatar's *Aljazeera* Net case found how the editorial line of an independent but partly state-funded news organisation was a liability for its multimedia innovation. The embedded case of the 25 January revolution revealed the way *Aljazeera*'s editorial stance towards the political conflict has deeply impacted the innovation within its portal. The Network's unconcealed anti-Mubarak and pro-Islamist editorial line during the Arab Spring, damaged its viewership and hampered its technological presence. The Egyptian state closed the Network's bureaux in Egypt, jammed its airwaves and hacked its portal (See Annex 9).

8.3.3 The Arab Spring Conditions to Multimedia Innovation

The findings also reveal three key conditions particular to the Arab Spring news events that altered the path and speed of multimedia adoption in each newsroom.

Firstly, the nature of the political crisis shifted the initial innovation plans in the newsrooms. For instance, the news crisis has increased news consumption which strained the portals' technical affordances and resources; and pushed the newsrooms to focus on certain projects while delaying others. Stabilizing their portals and providing users with immediate content took precedence. Crisis news has equally put physical and geographical limitations on reporters' to cover clashes in remote locations at simultaneous times. As a result, the newsrooms relied on citizens and social news content. The intensity of political conflict – whether in terms of witnessed violence or the speed of events – pushed newsrooms to rely on audio-visual news formats. Mobile and visual documentations of events were seen as a way to save reporting time and enhance news

credibility at a time when rumours prevailed. The Arab Spring uprisings are one example of unplanned crisis-news events that disrupted the newsroom regular routines and media logic, including their multimedia innovation plans.

Secondly, in the particular context of the politically volatile Arab world, and especially during the Arab Spring, the three media organizations became more politicized, which in turn shaped the conditions and dynamics for innovation. In varying degrees, the three newsrooms *raison d'être* and their journalistic ethos have intensified, as they have come in deeper and closer clashes with the regimes they work within. Taking sides in political events has been palpable as Arab media became much polarized as a result of the evolving crisis from 2011 to 2013. Consequently, the newsrooms suffered because of their editorial line. *Aljazeera's* strong pro-Islamist editorial stance had resulted in its portal being hacked, and its offices being closed. *Almassae's* hard line critique of the government during the February 2011 uprisings was detrimental – as it lost its editor-in-chief and depleted its revenues. *Almasry Alyoum's* declared support of the 25 revolution and its following anti-Islamists editorial line, had dramatically influenced its organisational structure and composition. These emerging conditions have brought changes in leadership and key newsroom agents influencing innovation decisions; and subsequently shaped the adoption processes of multimedia technology in these newsrooms. Eventually, their editorial line and political stance shaped their future innovation decisions.

Thirdly, the crisis brought about a new political economy in the Arab mediascape. The Arab Spring dramatically shifted the print and online news production, as media organisations became direct tools in the political conflict. Moreover, the soaring political news consumption and the intensified media competition reflected on online (and offline) innovation decisions to attract the attention of audiences. New media actors were

introduced – some with old hats – driven by a political as much as a business media logic. This new media logic determined investment decisions in strengthening newsrooms online presence in an increasing ‘battle of narratives’ matching the political divisions across the region.

Together, the cases confirm the first expectation of the research study: that the political factors particular to each country could have an impact on the visions and implementations of innovations in each newsroom. They also showed the strong link between the political economy of news production in each nation and innovation in the respective newsrooms. The external factors surrounding the newsrooms changed the pace and direction of multimedia visions and implementations.

8.4 Implications for the Practice of Journalism and Online News

The third research question of this thesis asks what broader implications of these innovations for the practice of journalism and the construction of information on the web. The key drivers and factors discussed in the comparative analysis chapter – namely the organization structures and agencies, the industry and technology development, the politics and the users – have shaped not only the innovation visions and adoptions, but the way news is structured online. The following are three key consequences for journalism practice and the way Arab news is changing on the Internet that emerged across the three cases.

8.4.1 Towards Visual Online News Production

The three newsrooms studied here shared a common multimedia innovation trend related to the production of visual news. Visual content production – whether in the form of video, infographics, or pictures – was a common trend across the cases. Pragmatic content analysis and archival review of the portals designs over the three years (2010-2013)

showed an exponential growth of multimedia design and format, particularly the space dedicated to pictures and videos on these portals. All three news organisations increasingly pushed news production visually, albeit in various degrees relative to their capacities and overall portal investments. For example, *Almassae* resorted to embedding YouTube videos on its website, given it had no existing capacity to develop its own video content. Additionally, it highlighted political cartoon features on its frontpage. *Almasry Alyoum* aggressively brought video and picture panels to the front page of its portal; and went further by adding a dedicated ‘*Almasry Alyoum TV*’ feature for latest video footage. In addition, it introduced interactive picture stories and timelines, in which specific issues or events get visually presented in a thematic, geographical or chronological order. Similarly, *Aljazeera* dramatically increased the space dedicated to its carousel pictures size and (see Picture 17), as well as, the total number of visuals – including pictures, infographics, cartoon and interactive timelines – on its front page. It also increasingly integrated TV footage from its broadcast channels into the online stories. Moreover, all three newsrooms had created social media such as YouTube and G+ Channels to disseminate video content (even *Almassae*¹³⁰ which does not produce its own videos). By 2013, the front page visual presentation of the three portals has almost resembled the visually intense layout of sports websites.

¹³⁰ *Almassae* YouTube Channel <https://www.youtube.com/user/almassaemedia1?feature=watch>



Picture 17 A noticeable increase in the size and number of pictures at Aljazeera net's¹³¹

With the exception of *Aljazeera Net*, the newsrooms' visual trend (whether video or picture) came at the expense of their textual and analytical content. Content analysis over selected Web articles, and interviews with editorial team, found that while *Almasry Alyoum* and *Almassae* had an average of 100 to 150 words per news story¹³² on their portal carousel; *Aljazeera Net* average news story consisted of 400 to 500 words. These are considerably lower than words in the average print story in their respective print papers.

The move towards visual journalism reflected a design innovation but also editorial and structural changes inside the newsrooms. A case in point was *Aljazeera Net* making a gatekeeping decision to reject any news reports coming from correspondents if they were not accompanied by a picture. *Almasry Alyoum* newspaper, in the meantime, has digitally and geographically converged its multimedia team within its print newsroom to better

¹³¹ 2013 frontpage design. [last accessed June 2013]

¹³² This word number is considerably larger in feature stories and analysis articles which are not highlighted in the front page carousel.

integrate visual content with its storytelling. Moreover, its management linked video stories production to a bonus system, in order to encourage print journalists to produce more videos. Finally, although there was hardly any multimedia dedicated staff at *Almassae*, print staff took personal initiatives to share YouTube videos deemed of users' interest, on the portal. All three newsrooms also subscribe to pictures databases of international news agencies that regularly feed them with pictures.

In addition, all three newsrooms changed their legal entities to adapt to the multimedia and visual needs. The two print organizations – *Almasry Alyoum* and *Almassae* – have changed their legal identity from a 'print' to a 'media' entity to be able to legally produce multimedia and cross-platform content in their respective countries. Meanwhile, *Aljazeera* had changed its identity from a 'Channel' to a 'Network' signalling the expansion of the news organization broadcasting services worldwide, but also the widening of its multimedia distribution platforms.

There are a number of reasons for this increasing visual trend that were shared by the editorial and technical staff in the three newsrooms. First, the nature of the portal design – which assigns by default a picture space to each story unlike the print layout – necessitated the presence of visuals. Media consumption patterns, such as the decreasing users' attention span, and the ubiquitous visual information online, were perceived as another reason. For instance, *Almasry Alyoum* found the pervasive YouTube and video consumption to be a key driver for their video provision, especially during times of political crisis. Video was seen as a way to overcome the spread of rumours, increase news credibility and gain users loyalty. *Aljazeera*, meanwhile, saw videos as an 'addition' to what is written, since 'they take the 'reader to a more tangible world.' (Personal interview, M.E, 9 June 2010). Videos were perceived by staff as salient

particularly during crises, where audiences look for tangible visual evidence about the conflict (see 5.8 p. 225. for instance).

Some journalists saw this ‘visual push’ as a concern and challenge to journalism, while others saw it as a great opportunity for news organizations to increase their credibility. Most journalists across the three newsrooms agreed that the fast pace of journalism practice, and the increasing time pressures, make the future of the graphic news presentation omnipresent, possibly at the expense of the letter. A media logic that is increasingly dependent on getting news ‘fast’ is also seen as putting a lot of pressure on these newsrooms to publish visual content with incremental and shorter textual content.

8.4.2 Towards Social Journalism

The cases suggest that the Internet has brought changes in the journalism practices and increasingly made it ‘social’ (see sections 6.9.4 for example). The observable growth in users’ content, users’ feedback and users interactivity, usher in dramatic changes in the way newsrooms operate. Citizens are increasingly becoming vital in the production of news content. In varying degrees, and with persisting traditional routines notwithstanding, journalists in the three cases are relying on users’ opinions, feedback, and stories, when producing content. For instance, *Almassae* relies on users’ complaints or suggestions sent via email to amend any stories errors or introduce new designs.

This trend, as the cases showed, is intensified and driven by a growing industry and commercial logic. Social journalism and social media are increasingly seen as platforms for the dissemination of the news content, and effective ways to harnessing of users’ loyalty and this organisation’s branding. Moreover, during times of crisis, these newsrooms intensified their reliance on social journalism, to cope with the nature of events.

8.4.3 Blurring Boundaries between News Content and Technological Artifacts

The findings in this research have shed light on how the adoption of online news technologies has involved shifts in the locus of content creation. For instance, the cases demonstrated how processes of innovation inherently depend on and juxtapose with editorial decisions related to storytelling. They also illustrated the array of convergence decisions that slowly morphed the print and online teams to one team producing 'content'. Similarly, the introduction of multimedia artifact entailed an immediate, if not proceeding, changes in journalistic practices and workflows. A case in point was AMAY's adoption of video galleries on the portal, which was driven by a decision to train all journalists on video storytelling. Similarly, the introduction of new CMS in *Aljazeera* and AMAY newsrooms signalled changes in the length of headlines and news articles, in the size of pictures, and in the different appropriation of content to suit the hypertextual and archival capacities of the portal. All this required new journalists' routines and skills to produce a different type of content.

The research findings show that the interdependence of technology and journalistic practice has made them difficult to separate; so much that news content and the technological artifacts are almost becoming two faces of the same coin. A case in point, is *Almasry Alyoum*'s move towards publishing video on its portal. The decision included not only introducing video technology into its portal design, but training all its journalists on the editorial and technological aspects of video storytelling. The findings support previous studies that showed the intersection of multimedia products with wider editorial and structural convergence efforts by the newsrooms (Boczkowski & Ferris, 2005).

What implications do all these changes have on the future of journalism? The above emerging patterns, although they cannot be generalized beyond the cases, suggest two possible predictions. First, as long as media organizations continue to operate within a capitalist profit-driven system, they will strive to introduce new multimedia technologies. They will continue to satisfy their users and attract their shrinking attention in order to compete. Even hybrid media business models – such as *Aljazeera* – would still strive to compete within this capitalist media system to drive profits, as well as public diplomacy agendas. Second, this race in multimedia innovation could potentially lead to imitation among local and regional news organization, particularly as visual takes over textual news; audience attention is dispersed; and social journalism is expanded. This theme converges with recent scholarship predicting a growing news imitation online in the face of information abundance (Boczkowski, 2010). However, further empirical work would be needed to confirm these predications.

8.5 Implications for Future Research: Towards a New News-Innovation Theory

8.5.1 Between a Universalist and a Contextualist Approach to News Innovation

A number of scholars have argued that there is a large degree of homogeneity in the evolution of news across geographically dispersed locales (Boczkowski, 2011; Corrigan, 2012). Indeed, the findings of this study show similarities with numerous newsroom studies pertaining to the organizational and institutional factors that shape adoption processes of news technological artifacts (Boczkowski & Ferris, 2005; Klinenberg, 2005; Mays et al, 2000). For instance, how persisting traditional routines and practices, emerging conceptions about the Internet users, and organizational structures and actors

agencies, were all common elements related to the different ways technologies were adopted, regardless of the different newsroom locales (Boczkowski & Ferris, 2005; Boczkowski, 2001, 2004a, 2004b; Schmitz Weiss & Domingo, 2010). Similarly, the relevance of the news industry and the competition among Arab newsrooms, which increasingly drive a culture of innovation that is reactive and pragmatic, are not atypical of modern newsrooms around the world. These findings converge with a growing global trend by mainstream media analysed by researchers since the early 2000s (Allan, 2006; Boczkowski & Ferris, 2005; Boczkowski, 2001, 2004b; Dennis, 2006; Salwen, 2005; Sousa, 2006; Thurman & Herbert, 2007). Local specificities notwithstanding, these changes seem to be generally universal and temporal, rather than geographical.

In addition, there are similar universal implications reflected in news products, such as towards video and multimedia story telling (Kallinikos & Mariátegui, 2011; Lievrouw, 2002; Paulussen, 2004; Thurman & Lupton, 2008). Other changes in news production such as mobile journalism, social journalism and citizen journalism are dramatically changing the content and form of news worldwide, not just the Arab world.

Such transformations have led to pessimistic forecasts about the future of journalism by some scholars. Some have contended that newsrooms' increasing imitation of one another will result in less news diversity (Boczkowski, 2010). Others, like Domingo, argue that the future of online journalism and its role for democracy may be at stake as a result of journalism moving online (Domingo & Paterson, 2011: xiv); or went as far as calling it the 'end of journalism'. In contrast, other scholars have expressed optimistic views about the democratizing potentials for citizens, and the ushering of a 'fifth estate', building on a developing ecology of old and new media (Newman et al, 2011). And although much empirical and comparative evidence is yet to support either utopian or dystopian views

about online journalism, there are some similarities in innovations processes between the three newsrooms' and modern newsrooms depicted in current innovation literature.

Nonetheless, it is imperative to ensure that the universality of news does not obscure the value of a 'contextualist' perception on innovation: one which delineates presumptions that neglect the cultural contexts of news technology adoption (Morley, 2012); and carefully attends to the 'history, locality and process' that shape the appropriation of technology in each news organization (Boczkowski, 2004b). This is particularly valuable to counter- balance the Western-centered theorizing of media studies that have dominated even the studies of culturally and politically different regions such as the Arab world.

Several studies of newsrooms have found some intrinsic differences between non-democracy and democracy models of media systems. For instance, studies on countries of similar fragile democracies to the Arab world – such as South Korea, China, Nigeria, and Zimbabwe – have revealed that the socio-political conditions particular to the newsrooms' environment play a powerful role in the way journalists adopt and appropriate technology (Kim & Hamilton, 2006; Liang, 2011; Mabweazara, 2010; Obijiofor, 2009). Yet, while researchers have provided valuable empirical evidence to start understanding how political systems and conditions matter to online news innovation; there has been little theory building about the conditions and characteristics of innovation particular to different locales and media systems.

Similarly, looking at Arabic media studies, a number of authors have argued that appropriating universalist (and often western-hegemonic) media theories cannot 'adequately account for the dynamics the Arab mediascape are setting in motion' (Zayani, 2008: 77; Mellor, 2007: 74-75; Sabry, 2012). As Jon Alterman argues, that there is a need:

To free our studies of new media and technology in the Middle East from the straightjacket of the Western Experience [...] to be more sensitive of how identical technologies can have vastly different impacts in different regions.(Alterman, 2005: 204)

Miladi (2007), meanwhile, called for developing a sociology of Arab media that grafts Western philosophical paradigms onto conceptual tools that take into account variables specific to the Arab reality, such as its language, culture and religion. And although these scholars have artfully drawn upon a wide range of theories to make sense of the patterns of Arab media practices, they have made relatively fewer attempts to contribute to the further advancement of these universal theories.

To this end, future studies of innovation need to bring in analytical tools that do not lose sight of striking this balance between the universalist and the contextualist approaches. As Sreberny puts it, ‘the more the globalization, the greater the need to study its impacts in a specific place and time’ (Sreberny, 2008: 10). The wider the diffusion of media channels, content and technologies is the greater importance for their national and regional instantiation and implications.

8.5.2 The Political Shaping of Technology

The present research identified a deeply embedded political dimension to technological innovation in the three Arabic newsrooms, which calls for the need to bring politics back into newsroom innovation scholarship. Across the cases, politics, in these unstable democracies and during a time of political flux, strongly shaped innovation within their respective newsrooms. It also confirmed how political crises can disrupt newsroom practices and shape production. The case research pointed to four key consequences of politics.

First, political events, particularly unpredictable and unplanned news events such as the Arab Uprising, were found to have shaped innovation decisions and adoption processes.

This particular crisis news and its circumstances pushed for ‘events-driven’ journalism – where unexpected and unplanned news events, rather than the newsroom gatekeeping, shape news production (Livingston & Bennett, 2003; Schudson, 2005, 2011). Crisis news disrupted newsrooms’ usual innovation processes, propelling them to react in different and new ways.

The findings support growing research showing that ‘crisis’ events drive news organisations to adopt novel media innovations, including innovative social media use. One recent example is the Guardian’s ‘Reading the Riots’¹³³ initiative. The initiative published broadcasted in December 2011, showed a number of data visualisation tools, including an interactive tool presenting how rumours erupted on Twitter during the London riots of summer 2011. Similar ‘news-driven innovations’ by media organisations during and after major crises resonate with the findings (see for instance Obijiofor, 2009; Taylor & Perry, 2005; Howard & Hussain, 2013)¹³⁴.

At the same time, the study showed that crisis news particular to a politically volatile locale such as the Arab World presented an additional layer of complexity to news-driven innovation. As section 7.3.2.2 showed, these regimes brought particular conditions that drove certain *defiance* or *defensive* innovations in some instances. The crisis in this context also instigated some *immediate* innovation decisions often in an adversarial nature, unlike post-events innovations like ‘Reading the Riots’.

Further research would need to examine comparatively this aspect, looking at the particular factors enabling or disabling ‘crisis-news innovation’ across different political and media systems; and asking questions such as: how innovation takes place during and after war times? Or what predicaments conflict zones pose to events-driven innovation?

¹³³ <http://www.theguardian.com/uk/interactive/2011/dec/07/london-riots-twitter>

¹³⁴ see p227 for related examples

For instance, had the Guardian website faced hacking or had its Internet been unplugged in Britain, would it have made the same innovation decisions, or reacted in the same way to the riots? Such analyses would also benefit from delineating innovations ‘during’ and ‘after’ crisis news events.

Secondly, the wider national and trans-national political systems – such as the regulations of ownership, public support and censorship– shape the possibilities for newsrooms’ adoption of media technological artifacts. For instance, restrained press freedoms through constant fines crippled the financial capacity of newsrooms such as *Almassae*, which affected their online news presence. Similarly, preventing journalists from conducting their work online, whether through content filtering, hacking or Internet blocking, physically hindered the implementation of existing multimedia innovations such as Facebook in some countries like Syria. More importantly, within a trans-national system like the Arab media – where media systems do not neatly coincide with nation-state boundaries (Hallin, 2009: 101) – the innovation implications on Pan-Arab newsrooms such as *Aljazeera*, as chapter six demonstrated, become more eclectic and profound. For instance, weak Internet infrastructures in the Arab world came in the way of adopting the latest technological artifacts that newsrooms would adopt, such as live streaming video. Similarly, *Aljazeera*’s digital presence was hindered in Egypt despite the Network being Qatari. The rise of multi-lingual global news organisations (such as *Aljazeera*, CNN, Skynews, BBC which produce news in several languages including Arabic and English), will intercept with this trans-national media system; and could have repercussions on their innovation processes and technological affordances. For instance, CNN technological capacity would not operate in the Arab world, the same way it does in the US.

Thirdly, and in contrast, the cases have demonstrated how the political constraints and dynamics surrounding a news organisation could sometimes spur innovative measures to

overcome them. When obstructed, newsrooms adapt to and adopt technologies differently to produce and disseminate news content. Section 7.3.2 (p. 312) in the cross-analysis, showed how political challenges inspired innovation in each of the newsrooms. The cases add to the growing body of research that show how news organisations deal innovatively with crisis and constraints on media systems (see for example Kim & Hamilton, 2006; Liang, 2011; Martin & Bodnar, 2009; Obijiofor, 2009; Palmer, 2012).

Fourthly, the media systems resulting from these political contexts and political events have had impacts on the news values, professionalism, routines and content of the three newsrooms; and have consequently influenced their multimedia adoption. In the three cases, the news organizations became highly politicized, despite positioning themselves as ‘independent’ media organisations. As a result of their intensified journalistic ethos and news agenda, new challenges and opportunities to their multimedia adoption processes emerged. Section 3.2.2 in the cross-analysis chapter showed the technological and economic ‘cost’ newsrooms like *Almassae* and *Aljazeera* paid for taking sides in the political conflict, for instance. It is possible that newsrooms in more democratic media environments would also become politicized and polarized during certain events, which in turn could influence their innovation decisions, and could have repercussions on their online presence. Future research would need to look into the ‘political’ as well as the ‘business’ motivation behind innovation strategies in newsrooms.

For the above reasons, this research argues that political factors should be brought more explicitly into the study of innovation, as key variables that shape technology and the innovation processes in newsrooms. This is not to suggest the ‘political shaping’ of technology is a substitution to social shaping of technology. Indeed the social factors – both at the micro levels of agencies or the wider macro levels of social systems– of an organization are paramount to any constructive analysis of news innovation. Rather, this

research proposes an approach that considers the political shaping ‘within’ the SST construct; and that the political context becomes an integral part of the study of social networks, systems and values that shape newsroom innovations. Moreover, this approach looks beyond the legal and political economy structures of media systems, and into the wider political environment and events that influence the material culture of newsrooms innovation. In a way, the ‘political shaping of technology’ construct brings politics back to the newsrooms as one of a set of factors shaping technology (Boczkowski, 2004; Lievrouw, 2002; Poepel, 2011).

8.5.3 Towards a New Analytical Approach

Based on the above, this study proposes a new analytical approach for examining newsrooms innovation: one which considers the macro and micro levels of processes of innovation. There are four key innovation factors driving innovation processes that were highlighted in the previous chapters: organizational, industrial, user-representational and political. As discussed in that chapter, each of these factors shaped the processes of adoption and impacted the speed and direction of multimedia innovation in each of the three newsrooms. Moreover, they were in constant tension with one another, as this micro-macro nexus resulted in different outcomes in the practices and conceptions of each newsroom. The changes in the political settings, for instance, impacted the internal dynamics and decision making agencies in the newsroom.

Therefore, it is important for any examination of diffusion of technology in newsrooms to take into account this *meso-nexus* that affects the dynamics of multimedia news production. Singling out inner organizational factors (internal to the newsroom) might risk missing the macro nuances of interactions with the larger state, history and culture that shape the ecosystem of each newsroom. It will also fall short of understanding the

tensions between the national, regional and global forces that shape the newsroom innovation decisions. Figure 30 in p.336 illustrates that meso nexus.

Similarly, neglecting the micro cultures, politics and agencies of actors within a particular time and place, would be missing the vital contextuality of each newsroom's culture and structure. Looking into the meso-nexus of organizational, political, industrial and users' level as a framework of analysis, would especially be useful for future comparative studies of wider inter-group diffusion of multimedia artifacts over particular times or regions.

8.6 Limitations and Directions for Future Research

This research attempted to fill a gap present in the literature about Arabic newsroom innovation. To do so, it adopted a grounded field research approach that looked holistically at each newsroom, unlike other innovation studies that tended to look at one particular media technological artifact (Kallinikos & Mariátegui, 2011; Poepzel, 2011; Schmitz Weiss & Domingo, 2010). Instead, this study gives a snapshot of the wider dynamics and processes of multimedia decisions and implementations in a particular time and space. Despite the usefulness of this approach in giving richer and contextualized data, its limitations and possible shortcomings give rise to directions for future research.

The first limitation is that of the time specificity of the cases. The three cases showed a particular time of political turmoil and a particular place of political volatility. This condition could be argued to be an extreme example of the political process in innovation. Indeed, the study does not claim to generalize any of its findings, the same way it rejects generalizing Western-centric democratic models on the Arab world. Nor does it claim any generalization of these cases to the Arab world; assuming there is 'one' Pan-Arab audience or media would be equally problematic when there has been a dearth of local

and comparative studies on Arab media. Rather, the study is an attempt to expand the theoretical and methodological gaze on newsroom innovation. The political in discussion of the social shaping of technology might still exist in lesser degrees within newsrooms of more stable democracies. Future empirical research could tackle how different political systems influence multimedia innovation, particularly during highly political events.

The second limitation has to do with the scope of the study. Because the grounded approach capitalized on breadth rather than depth of variables – looking at the wide array of multimedia innovations adopted within each newsroom – it chose to avoid theoretical perspectives such as Actors Network Theory (ANT) or the Communities of Practice (CoP), which were less amendable to addressing a fuller range of social factors at different locales of analysis. Using these theories would prove very beneficial for more longitudinal and single-innovation studies.

Thirdly, the study attempted to show the constant tension between the key driving forces of innovation within each newsroom. However, measuring the exact degree of prevalence of each factor enacted on the newsroom was not possible. This is partly because the priorities differed across the newsrooms; and they were relative to the news events, the organizational structures and conditions at a given point in time. This is an area future research could build on. One possible path could be identifying a model that can measure the elasticity of these drivers. For instance, a ‘coefficient of innovativeness’ – which assesses the ability to transform knowledge efforts into innovations – for each newsroom at a point time, could be developed based on the key aforementioned factors. Particular external and internal variables for each newsroom could then be selected in advance across one or more newsrooms as objects of study, depending on the nature of political event and the political media systems. The weight of each factor would be determined

based on qualitative and quantitative classifications that dissect the strength of internal actors, external factors and the organisational structures.

Future research should thus consider multimedia an organic artifact that is socio-politically shaped.

Annex 1: The Arab Spring Political and Media Timeline

Arab Spring Political-Media Timeline

1 Jun 2010	Start of the empirical research of the Egypt, Morocco and Qatar case studies.
6 Jun 2010	Pictures of Khaled Saeed's disfigured corps, reportedly resulting from severe police beating, spur national outrage. Wael Ghoneim creates 'We are all Khaled Saeed' Facebook group organizing uprisings on Police Day: 25 January
29 Oct 2010	Morocco suspends Aljazeera's work in the country for its 'breaching professionalism' in covering the Sahara crisis.
14 Jan 2011	Tunisian president Zine El Abidine Ben Ali steps down after a video showing Mohamed Bouazizi setting himself on fire on 17 Dec 2010, sparks the Tunisia revolution.
25 Jan 2011	Egyptian revolution erupts.
28 Jan 2011	Egypt's state unplugs the Internet for four days, and shuts Aljazeera Cairo bureau.
11 Feb 2011	Egyptian president Hosni Mubarak steps down.
20 Feb 2011	Uprisings, led by the 20 Feb Youth Movement, erupt in Morocco following those in Tunisia and Egypt.
3 Mar 2011	Editor in chief Magdy El Gallad resigns from Almasry Alyoum and joins the newly established private daily 'Alwatan'.
28 Apr 2011	Rachid Ninni is imprisoned for one year for criticizing key Moroccan political figures on his 'Shuf Tshuf' daily column.
20 Sept 2011	Aljazeera Network's General Director Waddah Khanfar resigns amid wikileaks allegations of Aljazeera's connections to USA.
28 Nov 2011	First Egyptian parliamentary elections after the 25 January 2011 revolution.
30 June 2012	Egypt's President Morsi elected by 51.73% of votes in the 2 nd round of elections, as first president after revolution.
30 June 2013	Nation-wide uprisings in Egypt lead to ousting President Morsi on the 3 July 2013, in what is called the 'continuation of 25 Jan revolution' by some, and 'counter 25 Jan' by others.

Annex 2: *Almassae's* Portal FrontPage at Inception¹³⁵

العدد : 314 - الجمعة 21 سبتمبر 2007 - آخر تحديث (21:18) غريتش

شوف تشوف

[عباس الفزائس](#)

الرأي الآخر

[العلاج بالصدمة](#)

مع أحمد السنوسي (بزير)

[لا زرية على اصلاح](#)

تيار هواء

[الثقافة والسياسة](#)

مع قهوة الصباح

[قهوة الصباح](#)

استطلاع الرأي

هل تتوقع أن ينجح عباس الفاسي في تشكيل حكومة جديدة؟

☐ نعم
☐ لا
☐ لا أدري

[التدقيق](#) [صوت](#)

ملاحظات المساء

عيش تهار تسمع خبار

السياسية

الثقافية

الآخيرة

الأرشيف

23/09/2007

الذهب

لنشرة البريدية

[أرسل](#)

سحرة رمضان

عباس الفاسي أمام امتحان تشكيل الحكومة ومخاوف الشارع

أولى الاتصالات مع الاتحاد الاشتراكي والحركة الشعبية والمشاورات قد تستغرق ثلاثة أسابيع الرباط - على أنوزلا كشف مصادر مطلعة أن تعيين عباس الفاسي وزيرا أول جاء استجابة لالتزام الملكي بتعيين الوزير الأول من الحزب السياسي الذي احتل الصدارة في الانتخابات الأخيرة. وقالت نفس المصادر التي كانت تتحدث لـ«المساء» وطلبت عدم ذكر اسمها أنه لو كان حزب «العدالة والتنمية» هو الذي ...

الإسلاميون ينتظرون طرق بابهم ويتهجمون على خروج الاتحاد إلى المعارضة

المساء: انتهى مسلسل انتظار اسم الفائز بمنصب الوزير الأول، وبدأ مسلسل تشكيل خارطة الحكومة المقبلة وأسماء الأحزاب المشاركة فيها، وطريقة توزيع الوزارات وعددها. وفي هذا الإطار، تبقى التحالفات المقبلة مفتوحة على كل الخيارات، بما فيها دخول الإسلاميين إلى ...

80 رجل أمن يوجده يعلنون «الحصيان» احتجاجا على الترقية

محمد سليلي: دفع دخول نحو ثمانين من رجال الشرطة بوجدة في إضراب عن العمل ومقاطعة طنية لالتزام ببدء الأمر اليومي، أمس الأربعاء، إلى تشكيل لجنة تحقيق رفيعة المستوى تحت الإشراف المباشر للمدير العام لأمن الوطني الشرقي الضريس. ووفق معلومات حصلت عليها ...

قصة صعود وهبوط حزب جلال الفاسي

توقيع بوعشرين: وصل عباس الفاسي إلى الوزارة الأولى، بعد انتظار طويل لحزب الاستقلال الذي عاش 14 سنة يتأسف على خروج الوزارة ...

أخبار المساء

أنهى عمر بن لادن (جل أسامة بن لادن) علاقة زواجه بالبريطانية جين فلكس براون بعض مضي أقل من شهرين على إعلان زواجهما بالمملكة ...

أخبار المساء

قضت المحكمة الابتدائية بمدينة اليوسقية بالسجن مدة ثلاث سنوات لتسليم يزيد عمره عن التسعين سنة بتهمة «المس بالمقدسات» ...

جميع الحقوق محفوظة © 2007 لجريدة المساء - تصميم و برمجة KOSINUX

¹³⁵ **The portal's FrontPage, days after it was first launched on 21 September 2007. Web archive,** <http://web.archive.org/web/20070923034054/http://www.almassae.press.ma/> Accessed 10 Dec 2011

Annex 3: Almasry Alyoum's Portal Development since Inception



Picture 18 Almasry Alyoum's portal in 2003 (left) and in 2013 (right)

Annex 4: Egypt's Key Newspapers and their Affiliations

Al Shaab Al-Gadid: Daily, published by the Islamic Labour Party

Al-Ahram: Daily, state-run, largest distribution in Egypt

Al-Akhbar: Daily, state-run, second to Al-Ahram in institutional size

Al-Arabi: Weekly, published by the Nasserist Party

Al-Dostour: Daily, privately owned

Al-Gomhurriya: Daily, state-run

Al-Nour: Official paper of the Salafi Nour Party

Al-Sabah: Daily, privately owned

Al-Shorouk: Daily, privately owned

Al-Tahrir: Daily, privately owned

Al-Wafd: Daily, published by the liberal Wafd Party

Al-Watan: Daily, privately owned

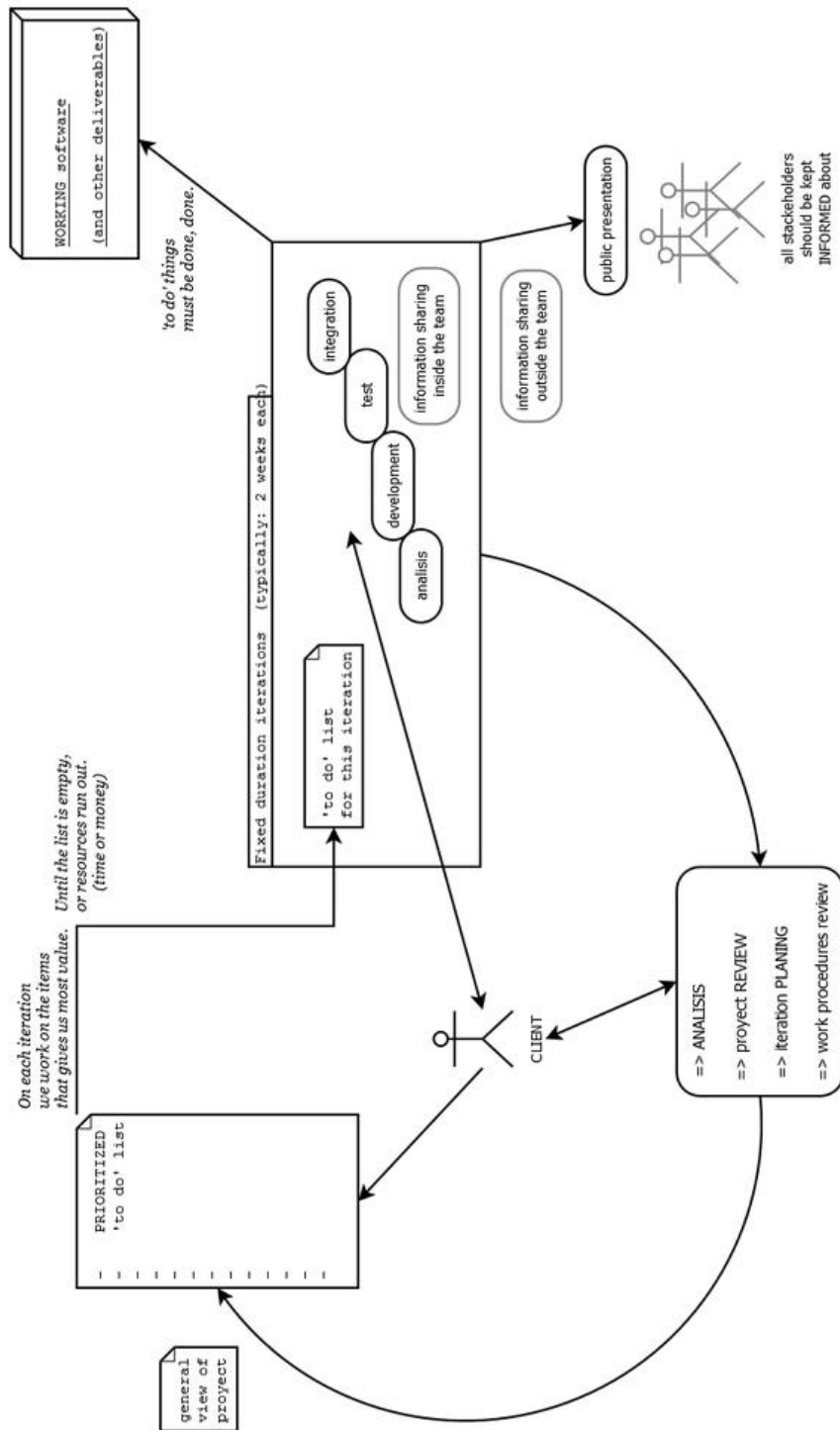
Freedom and Justice: Daily, published by the Muslim Brotherhood's Freedom and Justice Party

Rose al-Youssef: Daily, state-run

Sawt al-Umma: Weekly, privately owned

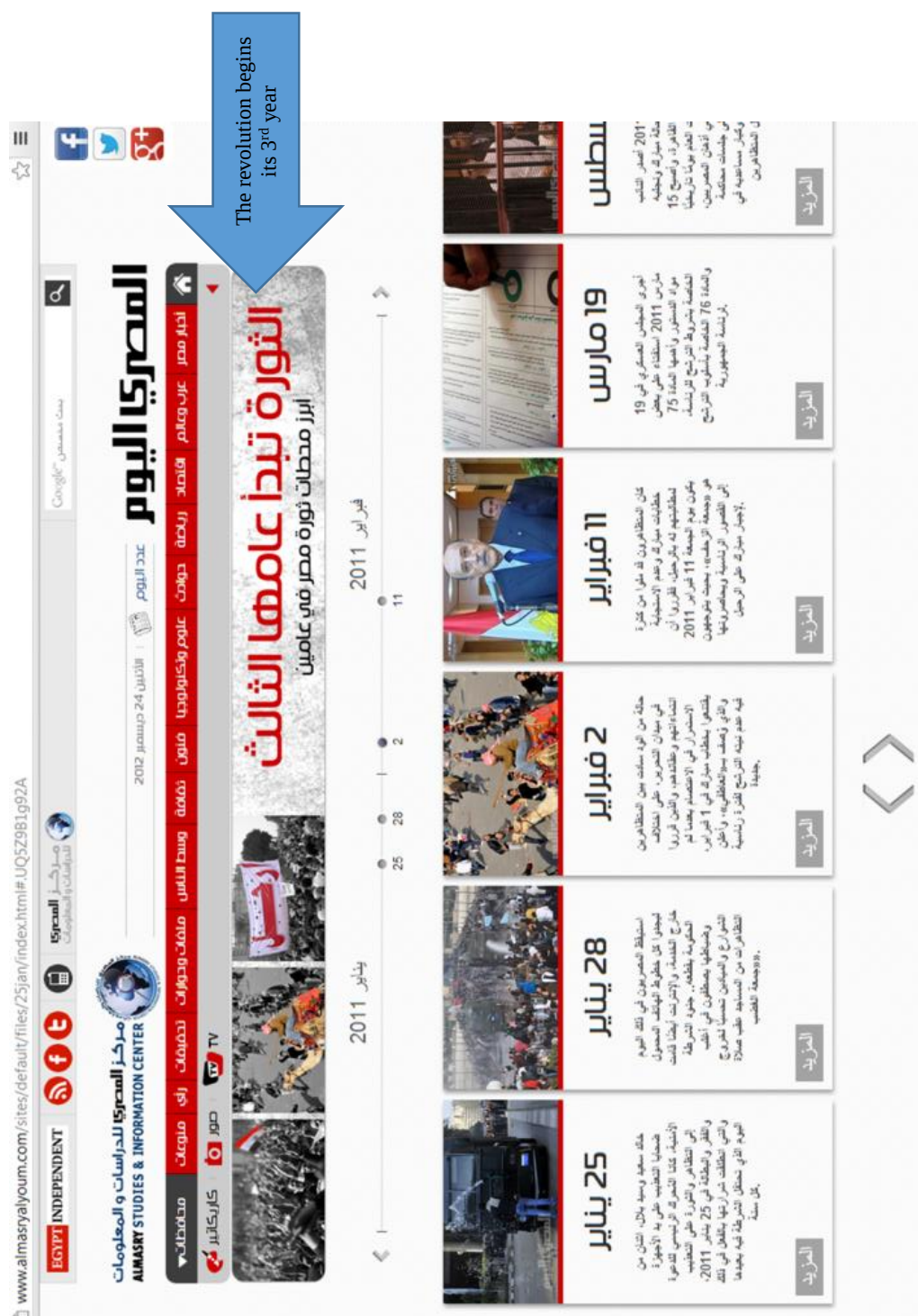
Youm7: Weekly, privately owned

Annex 5: The Agile Software Development Approach

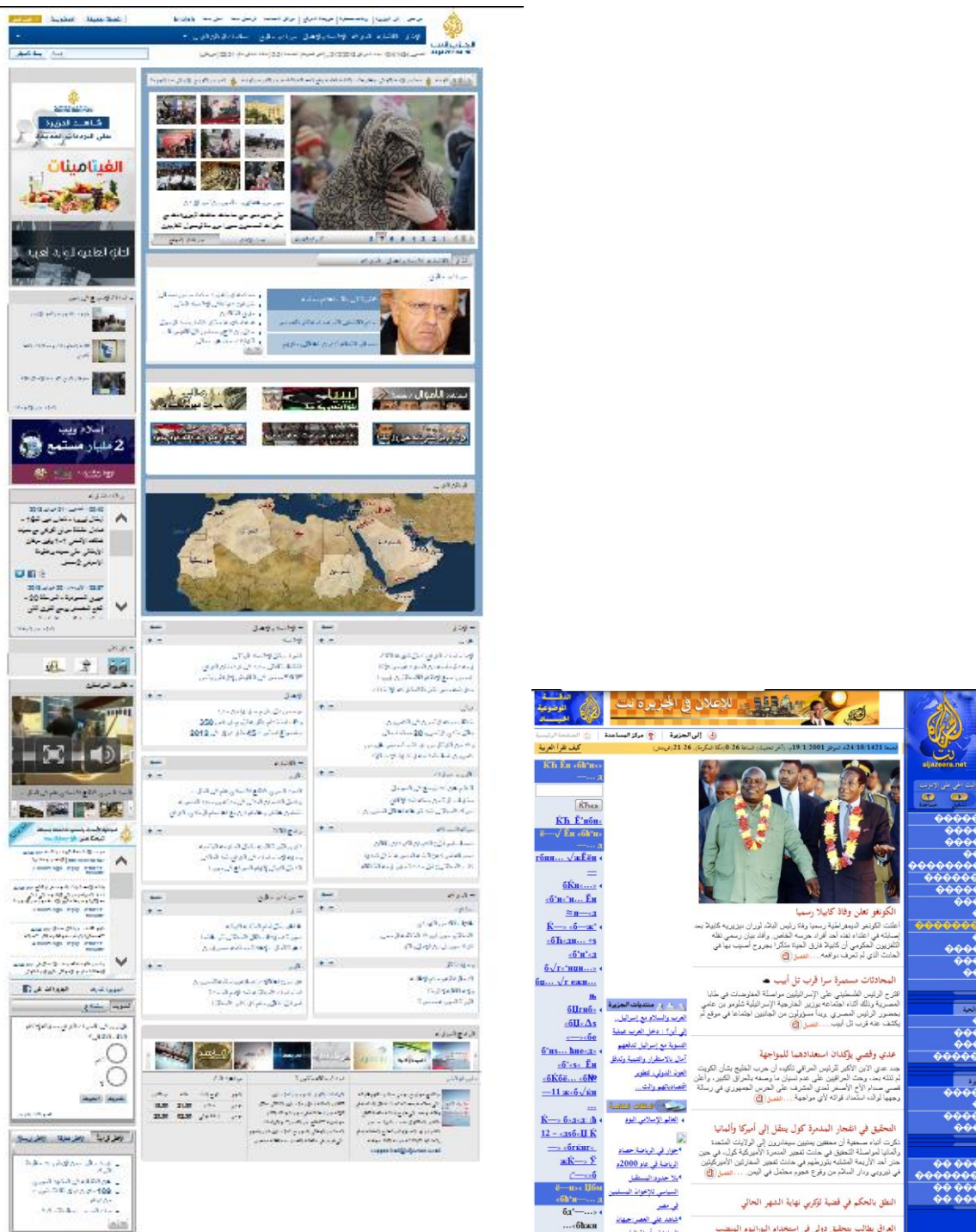


Annex 6: Almasry Alyoum's Egyptian Revolution Interactive

Timeline

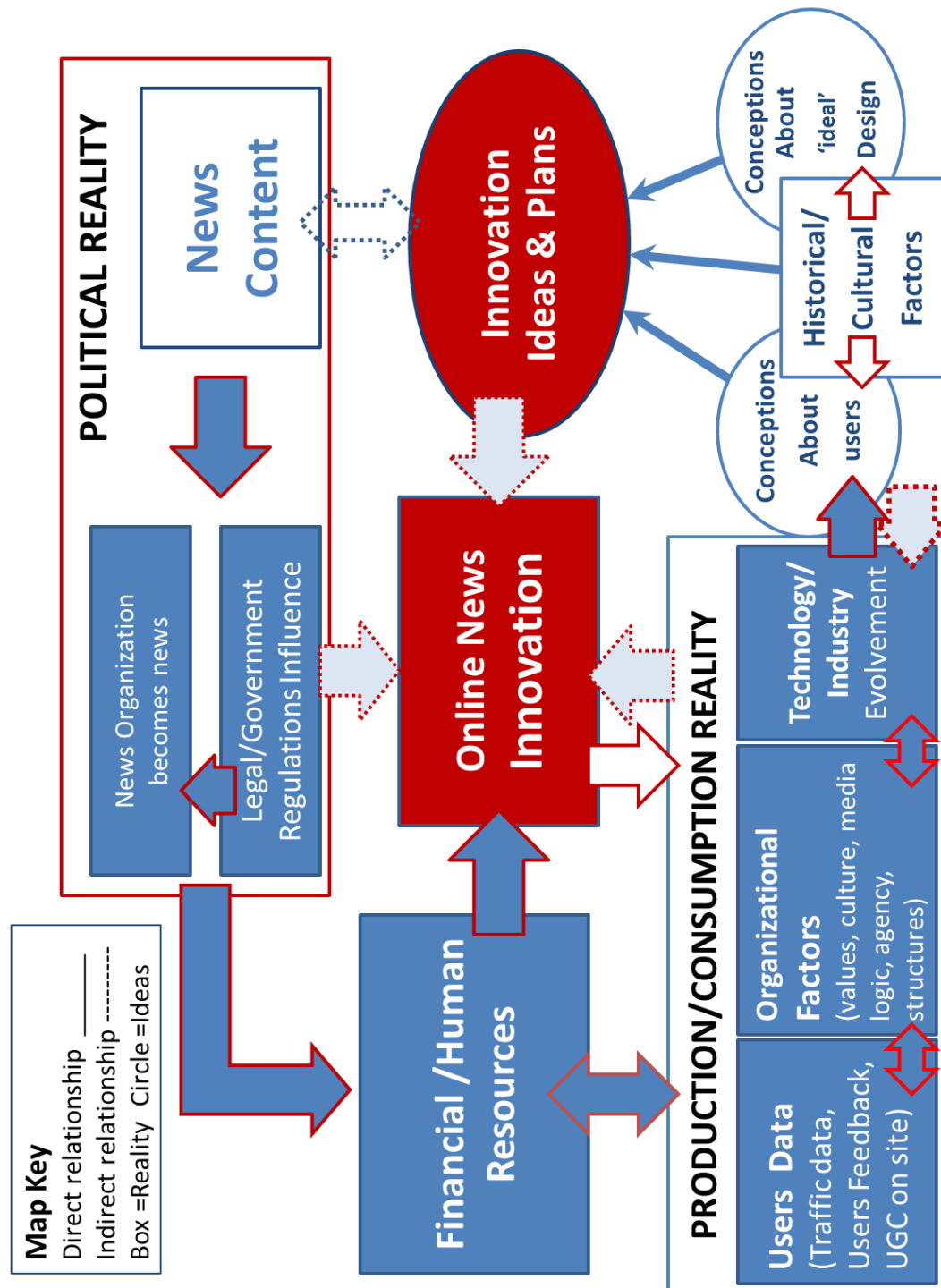


Annex 7: Aljazeera.net on 20 Feb. 2013, and in Jan. 2001



Picture 19: Aljazeera.net early front page in Jan 2001 (right) and in Feb 2013 (left).

Annex 8: Model of Multimedia Innovation Process in the Newsrooms



Annex 9: Aljazeera Portal's Announcement of Scrambling its Network's Frequencies

Aljazeera Net Portal ticker announces: 'Aljazeera faces intentional scrambling of its frequencies...press here for the new frequencies'



العالم في يديك
The World In Your Hands

الجزيرة.نت

السبت 11/9/1434 هـ - الموافق 20/7/2013 م (آخر تحديث) الساعة 1:47 (مكة المكرمة) 22:47 (غرينتش)

English

مواقع أخرى للجزيرة

ابحث

الرئيسية

الأخبار

الفضائية

المعرفة

الاقتصاد والأعمال

الوطن العربي

مصر

تعرض الجزيرة لتشويش متعمد، ولمعرفة الترددات الجديدة.. اضغط هنا

آخر التطورات: رفضت حركة حماس

من أخبار الموقع

استثناء من مفارقات حكومة البيلالي

لم تخف كثير من القوى والشخصيات التي باركت تدخل الجيش وقبيله بمرز الرئيس المنتخب محمد مرسى

الزعاجها من تشكيلة حكومة حازم البدرى: سواء فيما

مواقف المحاور من

مها الحجيل

تخفي الولايات المتحدة الأميركية من

انفجار واسع في مصر يدفع بجزء من

التيار الإسلامي إلى حمل السلاح في

الداخل بعد أن سبقت في وجهه الحياة

المدنية وهو ما سيؤثر في ثلاثة مسارات

تتلاقى واشنطن.

أحدث الأخبار

وجهات نظر

Picture 20 Aljazeera Net's portal jamming announcement, 20 July 2013

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