PUBLIC DIPLOMACY IN THE DIGITAL AGE

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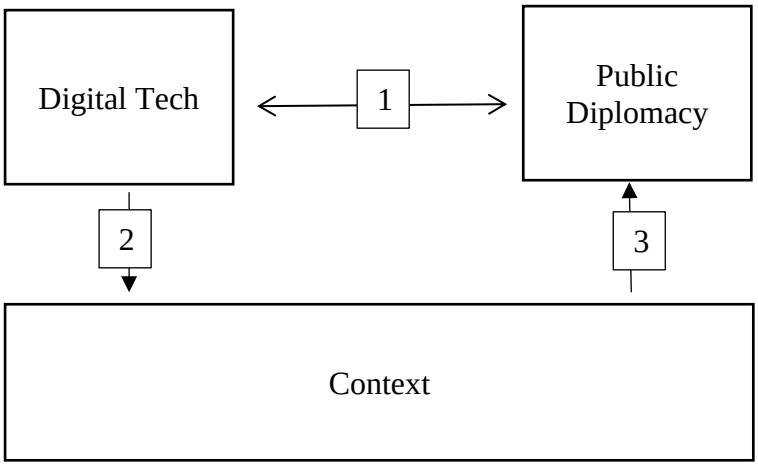
Introduction

By 2025 the number of data-driven interactions per day per person is estimated to increase twenty-fold from an average of 218 in 2015 to a staggering amount of 4,785 amounting to one digital interaction every 18 seconds. Furthermore, real-time data usage will grow at 1.5 times the rate of overall data creation, meaning that the effectiveness of data-driven activities will increasingly depend on the availability of data with low-latency responsiveness (instant data). Most troublingly, perhaps, nearly 20% of the data in the "data sphere" will be critical to our lives and 10% of that will be hypercritical (i.e., data with a direct and immediate impact on the health and well- being of users, if it becomes unavailable).[1] In other words, the scope, volume and intensity of global data connectivity is expected to explode in the coming years. While most of these interactions will likely be mediated by intelligent assistants, the disruption produced by this transformation will have by necessity far reaching implications for the way in individuals, communities and societies define and conduct themselves as social and political actors, and by extension for the way in which public diplomacy as a practice of building bridges with foreign publics will adapt and evolve in the Digital Age.

Drawing on social informatics research, this essay makes an innovative analytical contribution to our understanding of how digital technologies shape the context in which public diplomacy operates by reshaping the medium of public communication, blurring the boundary between foreign and domestic affairs and empowering new actors. By offering insights into the relationship between information technologies and social contexts,[2] social informatics (SI) research moves beyond facile interrogations of how information technologies are functionally integrated by interested actors in their work and emphasises instead their ability to embed themselves in the social and institutional context in which they emerge and proliferate. In other words, instead of exclusively focusing on the qualities of the technological artifact, social informatics takes a critical view at the ways in which people and information technologies interact[3] (Arrow 1 in Fig 1). As a result, we can get a better sense of the dual enabling and constraining roles played by information technologies in shaping public diplomacy practices.[4]

[1] David Reinsel, John Gantz, and John Rydning, "Data Age 2025: The Evolution of Data to Life-Critical " International Data Corporation https://www.seagate.com/www-content/our-story/trends/files/Seagate-WP-DataAge2025-March-2017.pdf.
[2] Rob Kling, "What Is Social Informatics and Why Does It Matter?," *The Information Society* 23, no. 4 (2007).
[3] Steve Sawyer and Howard Rosenbaum, "Social Informatics in the Information Sciences: Current Activities and Emerging Directions," *Informing Science 3* 3, no. 2 (2000).
[4] Mohammad Hossein Jarrahi and Sarah Beth Nelson, "Agency, Sociomateriality, and Configuration Work," *The Information Society* 34, no. 4 (2018).

Fig 1: *A social informatics approach to understanding the interaction between digital technologies and public diplomacy*



To this end, the paper will first examine how the materiality of digital technologies shape the context in which public diplomats work (Arrow 2 in Fig 1), and second, how the digitised context constrains and enables public diplomatic engagement (Arrow 3 in Fig 1). The analysis will be pursued in three sections, each exploring one key aspect of the evolving dynamic of public diplomacy in the Digital Age: the evolution of the medium of communication, the growing relevance of domestic digital diplomacy and the rise to diplomatic prominence of technological based non-state actors. It will be thus argued that despite inevitable challenges, the future of public diplomacy in the Digital Age remains bright as digital technologies create tremendous opportunities for public diplomacy to build stronger, more diverse and more enduring bridges between offline and online communities.

Digital communication: From Gutenberg to Zuckerberg

As Jönsson points out 'without communication, there is no diplomacy'[5] and rightly so, as diplomats would hardly be able to represent or negotiate their interests without the means to express them in a manner that is sufficiently intelligible to all parties. While diplomatic communication has been traditionally embedded in a textual-oriented culture[6] that has favoured 'constructive ambiguity' over precision, politeness over frankness, reason over passion, and confidentiality over transparency, the arrival of digital technologies has infused the public sphere in which diplomacy operates with a set of new elements that have already started to reshape the way in which public engagement takes place. Some of these elements are already visible (information overload, visual enhancement, emotional framing, algorithmic-driven engagement), others are expected to become visible soon (non-physical interaction and empathetic connectivity via augmented and virtual reality simulations), but

[5] Christer Jonsson, "Diplomacy, Communication and Signalling," in *Sage Handbook of Diplomacy*, ed. Costas M. Constantinou, Pauline Kerr, and Paul Sharp (London: Sage, 2016), 79.
[6] Sir Ivor Roberts, *Satow's Diplomatic Practice* (Oxford University Press, 2016), 45-60.

many others are yet to reveal themselves as the technologies to support them are still in the 'drawing board' phase (artificial intelligence, blockchain, 3D printing).

Take, for instance, the case of the digital data, the 'bloodstream' of the digital revolution. It is expected that by 2025 the global data sphere will grow to 163 zettabytes (a trillion gigabytes), which represents ten times the 16.1ZB of data generated in 2016.[7] To put things into perspective, every two days we create as much information, the former Google CEO Eric Schmidt once claimed, as we had done from the dawn of civilisation up until 2003, roughly five exabytes of data [8] (or 0.005 ZB). This massive process of data generation inevitably increases the competitiveness for attention in the online space and stimulates demand for new skills and algorithmic tools necessary for filtering, processing and interpreting relevant data. The cognitive shortcuts that online users have developed in reaction to information overload are tailored to addressing the challenge of conducting effective communication in the digital space. Visual enhancement highlights, for example, the power of images to pack a large amount of information in an easily absorbable format. Emotional framing seeks, on the other hand, to stimulate online engagement not by the quality of the information, but by the intensity of the moods and feelings conveyed about the topic under discussion, a process that has the potential to become even more intimate in the immersive context of AR and VR technologies.

As social informatics researchers will not hesitate to point out, the impact of these transformations on public diplomacy (PD) will much depend on how diplomats will interact with the new communication features that digital technologies will make available. If these features will be recognised as making useful contributions to improving the effectiveness of public diplomatic work and to advancing foreign policy objectives, then they are more likely to be accepted and supported by MFAs, embassies and rising non-state actors with diplomatic capacities and aspirations. If, on the other hand, these features will be seen as fostering an environment in diplomatic communication will found itself at risk of being hijacked by the 'dark side' of the technology and redirected for disinformation and propaganda use, then institutional resistance is likely to be much stronger. More specifically, one would expect three particular areas to influence considerations about the significance of digital technologies for the future of public diplomacy namely, whether they will prove effective in ensuring that PD messages would be better *heard, listened* and *followed* by the relevant audiences.

Given the challenge of information overload and the growing competitiveness of the online space, machine learning will likely become an indispensable tool for studying pattern recognition and making data-driven predictions about the main issues of concern for the target audiences. As the volume of data-driven interactions continue to grow at an exponential rate, one can make oneself heard only by professionally learning how to separate 'signals' from the background 'noise' and by pro-actively adjusting her message accordingly in a manner that ensures maximal visibility in the online space, in real time. Making oneself listened would require, by extension, a better understanding of the cognitive frames and emotional undertones that enable audiences to meaningfully connect with a particular message. Most importantly, the ongoing transition from a textual to a visual or audio form of

[7] Reinsel, Gantz, and Rydning, 3.
[8] MG Siegler, "Eric Schmidt: Every 2 Days We Create as Much Information as We Did up to 2003," Techcrunch, https://techcrunch.com/2010/08/04/schmidt-data/.

communication is likely to accelerate and consequently, PD campaigns are expected to become increasingly sophisticated in visual or audio terms. Augmented reality technology is particularly well suited for taking advantage of this trend by allowing, for instance, public diplomats to use geolocation-based apps to showcase issues of interest in a tailored and interactive manner. Intelligent assistants like Amazon's Alexa or Google Home's smart speaker could also prove effective in providing tailored and engaging PD context via specially developed skill sets.

Finally, making oneself recognized and followed as a soft power leader would come with a particular set of challenges. First of all, the idea of ignoring or downplaying the significance of the digital medium is likely to turn increasingly counter-productive. "To define yourself or be defined" has now become a critical guiding principle of digital engagement as in fluid, overcrowded and dynamic digital contexts diplomatic reputations, political perceptions and institutional images can be relatively easily reframed or undermined, as illustrated, for instance, by the Twitter spat between Turkey and the Netherlands when the Dutch government prevented Turkish officials from campaigning in the country.[9] Second, digital platforms do not simply add value to pre-designed communication strategies, but they gradually usher in a new language of communication with its own grammar rules in which data, AR/VR simulations and algorithms are the new syntactic units to which various combinations of visuals, emotions and cognitive frames are attached to create semantic meaning. Third, the line between message and action becomes increasingly blurred, as diplomatic communication in the digital context is no longer about merely reporting or occasionally instigating action, but about *performing* action with diplomatic meaning and implications, especially in times of international crises.

To conclude, digital technologies will continue to reshape to context in which social communication takes place in a subtle by profound manner ranging from the use of machine learning for understanding patterns of communication, the employment of intelligent assistants for message dissemination and the resetting the 'grammar rules' of communication in support of more engaging and performative actions. On the critical side, the continued inability to process vast amounts of data in real time create favourable conditions for the construction of 'alternative realities', in which interpretations of social reality are disconnected from evidence-based reasoning and anchored instead onto deformed or falsified frames designed to serve the foreign policy interests of the day, as the disinformation campaigns in Europe attributed to the Russian government regrettably demonstrate.[10]

Domestic digital diplomacy: From Whitehall to Townhall

Traditionally, foreign ministries were tasked with managing relations of friendship and enmity with other states while diplomatic communication saw interactions between diplomats

[9] Reuters, "Turkey-Netherlands Spat Worsens after High-Profile Twitter Accounts Hacked, Replaced with Anti-Nazi Messages," Haaretz, https://www.haaretz.com/world-news/europe/turkish-dutch-spat-worsens-after-twitter-accounts-hijacked-1.5449073.
[10] Corneliu Bjola and James Pamment, "Digital Containment: Revisiting Containment Strategy in the Digital Age," *Global Affairs* 2, no. 2 (2016).

and foreign constituencies[11]. Diplomats thus faced the world with their back their nation and seldom communicated with their national citizenry[12]. Yet globalization and digitalization have blurred the lines between the foreign and the domestic. In a globalized world, one cannot easily separate the domestic from the foreign as local challenges such as climate change, terrorism or even employment require regional or global solutions. Digitisation further blurs the distinction between domestic and foreign as citizens' migration to digital platforms creates new opportunities for diplomats to rally domestic public support for foreign policy achievements or sway public opinion in favour of a chosen policy. From a social informatics perspective, the more that digital technologies create conditions for national and foreign actors to influence public perceptions of governments' foreign policies and strategies, the more that MFAs would have to engage themselves in the public conversation as well at the domestic level.

The digital blurring of the foreign and the domestic could be best captured by the concept of domestic digital diplomacy (DDD), which refers to the use of digital platforms by governments in support of their foreign policy.[13] In 1988 Robert Putnam conceptualized diplomatic negotiations as a two-level game in which national and international politics often collide[14]. At the national level, interest groups and constituents (labour unions, activist groups) pursue their interests by pressuring the government to adopt favourable policies. At the international level, governments attempt to meet the pressures of their domestic constituents, while at the same time minimizing the possible adverse impact of foreign developments. Putnam argued that "the political complexities for the players in this two-level game are staggering" as leaders must walk the tightrope between domestic and foreign demands.

From a public diplomacy perspective, digital technologies may be used to facilitate, or impede the two-level game of diplomacy. For instance, foreign policy institutions may now use digital platforms to communicate with the national citizenry to obtain public support for diplomatic treaties which may translate into political support. In a recent paper, Bjola and Manor explored, for instance, how the Obama White House used Twitter to engage with the American public and gather support for the Iran Nuclear Agreement which ultimately led to Congressional endorsement of the Agreement[15]. As digitisation has dramatically increased the ability of online actors to counter government communication, Bjola and Manor expect the issue of DDD to become more prominent in the coming years. MFAs will likely face a growing demand to monitor the activity of foreign opponents in the domestic public sphere, map their arguments and refute them in near-real time.

Future technologies will continue to digitally disrupt the two-level game. For instance, it is estimated that by 2025 virtual reality will provide digital publics with immersive experiences

[11] Corneliu Bjola, 'Understanding enmity and friendship in world politics: The case for a diplomatic approach', vol. 8, no. 1 (2013), pp.1-20.
[12] Daryl Copeland, 'Taking Diplomacy Public', in Rhonda. S. Zaharna, Amelia Arsenault & Ali Fisher (eds), Relational, Networked and Collaborative Approaches to Public Diplomacy: The Connective Mindshift (Oxon: Routledge, 2013), pp.56-69
[13] Corneliu Bjola and Ilan Manor, 'Revisiting Putnam's two-level game theory in the digital age: domestic digital diplomacy and the Iran nuclear deal", Cambridge Review of International Affairs, 1 (2018), pp1-30.
[14] Robert D Putnam, 'Diplomacy and domestic politics: the logic of two-level games', International organizations, vol. 42, no. 3 (1988), pp.427-460.
[15] Corneliu Bjola and Ilan Manor.

that could challenge one's notion of reality[16]. Virtual reality may be defined as an artificial environment which is experienced through sensory stimuli provided by a computer and in which ones' actions partially determine what happens in the environment. From the perspective of domestic digital diplomacy, MFAs may use virtual reality to offer citizens a virtual experience in which they are transported to the scene of a global crisis and witness first hand events unfolding on the ground. The British Foreign Office could, for instance, offer British citizens the opportunity to virtually witness the Syria Civil War. This, in turn, may enable the FCO to obtain public support for demanding that any negotiated resolution to the War include the removal of President Bashar Assad.

Yet virtual reality experiences may be based on fact or fiction, reality or narrative. The Russian MFA could also virtually transport British publics to Syria while exposing them to a false reality in which the Assad regime is fighting Islamic terrorists rather than its own people. Subsequently, British publics may soon come to regard Russia's involvement in Syria as legitimate harming British attempts to broker a negotiated solution to the War that sees the removal of President Assad. Importantly, digital publics may be susceptible to visual manipulation as images play an evidentiary purpose in modern societies. They are used in courts of law and history books to prove that certain events did in-fact take place. As "seeing is believing", virtual reality could substantially disrupt the two-level game as MFAs promote false realities.

The same is also true of AI (artificial intelligence). In 2018 American scientists created an AI program that surveyed dozens of videos of former President Barack Obama. After studying the President's facial movements, intonation and speech patterns, the program can now create fictious videos of Obama while scientists can place any words in the former President's mouth[17]. Doctored videos could also be used to disrupt negotiations. One can only imagine the impact of a fake video depicting Iran's Ayatollah promising to secretly enrich uranium even after the Iran Agreement had been signed.

Algorithms may also influence diplomatic negotiations as they enable the creation of digital content that increasingly resonates with the biases of certain populations. Big data and sentiment analysis can be used to classify conversations taking place in various digital forums. Once biased groups have been identified, digital propaganda may be disseminated among members so as to strengthen their bias and harden their political stance thus impacting a government's ability to negotiate an agreement with another. During the Crimean Crisis, disinformation was used to promote fake stories in Ukraine alleging that Ukrainian extremists had raped Russian women or established concentration camps in Eastern Ukraine[18]. These were used in an attempt to sway public opinion against a possible agreement between Ukraine and the EU. As algorithms grow more sophisticated, their ability to sway public opinion in a foreign country against an agreement may also grow.

Yet algorithmic technologies may also facilitate the two-level game of diplomacy. The Israeli MFA currently uses algorithms to map social media filter bubbles that promote either

[16] See Frost and Sullivan, 'The Global Future of Workplace Technology, forecast to 2015', Accessed 7, July, 2018, http://www.frost.com/sublib/display-report.do?id=NFE7-01-00-00-00

[17] BBC News, 17 July, 2017

[18] See NATO Stratcom, 'Analysis of Russia's Information Campaign Against Ukraine', (2015). Accessed 7, July, 2018 file:///C:/Users/odid-user/Downloads/russian_information_campaign_public_12012016fin.pdf

positive or negative narratives about Jewish communities. Once these have been mapped, the MFA attempts to engage with members of negative filter bubbles by providing factual information, countering racial stereotypes and conversing with those members who are willing to do so.[19] This, in turn, helps the MFA build relationships with hostile online publics which may then come to support Israeli policy stance such as Israel's insistence that any negotiated settlement with the Palestinians include the continued military presence of Israeli forces along the border with Jordan.

Finally, it is estimated that by 2025 tele-presence will replace applications such as Skype as a medium for remote communications[20]. Tele-presence is a holographic conferencing communication technology that enables people to interact with holographic images of their counterparts. Tele-presence could also substantially complicate the two-level game. As a tool for domestic digital diplomacy, holographic imagery could enable a diplomat to hold town-hall meetings throughout his country to raise domestic support for diplomatic treaties without ever leaving their office. As a tool for traditional public diplomacy, tele-presence may impact the diplomatic capabilities of relatively poor countries who maintain small embassies abroad. Rather than have a physical diplomat rally support for, or against, a diplomatic accord, diplomats will be able to holographically engage with foreign opinion makers and elites so as to facilitate or impede the domestic ratification of an international agreement.

In summary, the next wave of digital disruption will continue to blur the boundary between the domestic and the foreign and the real and the fictitious. Reaping the benefits, and contending with the limitations, of innovative technologies will demand that MFAs adopt a proactive approach to digitisation and begin to acquire today the skills necessary to practice digital domestic diplomacy as a key new component of the public diplomacy of tomorrow.

Post-Westphalian diplomacy: from state to tech-based representation

As digital technologies grow in their agency and impact, it seems justified to pose two pertinent questions to the reader: *who are the diplomats* and *who needs public diplomacy* in the Digital Age? In seeking to answer these questions, we can highlight two distinct future trends when it comes to evaluating the evolution of diplomatic representation and in particular its impact on public diplomacy in the digital age: the tendency to see diplomats in terms of the skills they possess and the jobs they do, rather than whom they represent, and the ever increasing institutionalized multilateralism aimed at a stronger international order, either by improving digital cooperation between states or transcending the need for it. From a social informatics perspective, the first tendency speaks to the digital transformation of the context in which diplomacy operates (the rise of new powerful actors with diplomatic capacity and aspirations), while the second highlights the implications these new actors may have on new methods and forms of public diplomatic engagement.

Shining a spotlight on the latter trend first, it seems justified to state that the progressive inclusion of non-state actors in the realm of foreign policy making, is playing a seismic role in shaping the current, and undoubtedly the future, evolution of diplomatic representation. In particular, the inclusion of technological giants within the borders of the Silicon Valley. Indeed, this ever-intertwining relationship between these actors and a nation state's foreign

[19] Interview with Director of Algorithmic Diplomacy at the Israeli MFA
[20] Frost and Sullivan, 'The Global Future of Workplace Technology, forecast to 2015'

policy construction, is being publicly and actively addressed by the actors themselves, signalling to the world at large, that the international political order has indeed changed. Ferdinando 'Nani' Beccalli-Falco, the Chief Executive Officer (CEO) of GE Europe for example, goes as far as to call himself 'the Foreign Minister of GE' due to the nature of his work. Eric Schmidt, Google's Chairman and former CEO, have made visits to North Korea and Cuba with the public aim of meeting with state officials to promote a 'free and open internet'. Schmidt himself, is regularly called Google's 'Ambassador to the World' for his work in representing the firm on global trips in an attempt to expand Googles operations worldwide. Thus, for the student and the practitioner of diplomacy, the trend concerning diplomatic actors and their evolving representation seems clear; corporations are growing in their capacity to engage in public diplomacy efforts, a domain which once remained almost exclusively in the domain of sovereign states.

Indeed, a host of the aforementioned actors now have resources exceeding those of some sovereign states and can bypass the formal structures of their home nation's diplomatic bureaucracy. They are also increasingly being shown to constrain the role of contemporary MFAs in setting and implementing policy, both at home and abroad. When viewed through the lens of the evolving nature of diplomatic representation, this constraint represents one of the growing challenges that has emerged within the framework of what we can now label a 'Silicon Valley' Foreign Policy. Non-state actors, specifically technological based non state actors (TBNSA), are directly challenging our historic notions of power and influence in the realm of foreign policy making and are shaping with considerable force the context in which MFAs now choose to conduct their public diplomacy efforts. This reshaping of the diplomatic domain by TBNSA has been done, and it seems justified to predict that it will continue to be done, by a) disrupting the historic structural order of diplomatic institutions (in this case, that of diplomatic representation), and b) the heightened influence and reach that these new actors now hold over the public domain. A degree of influence and reach that MFAs could once only dream of, and one which many are now, rightly seeking to emulate and integrate in their future conduct of public diplomacy.

However, as with any change to the make-up of diplomatic practice, be this in regard to public diplomacy objectives or otherwise, serious challenges arise. As the Head of the UN Independent International Commission of Inquiry on Syria, Mr Paulo Sérgio Pinheiro, acknowledged, one serious challenge for the future of diplomacy stems "*not* from the rapid increase in the number and types of international organisations, but from diplomacy's (representative actors and institutions) inability to adapt to them[21]. As noted, TBNSA are continuously demonstrating their capacity to take centre stage even when facing traditional powerful state actors. In contrast, MFAs at large, are continuously demonstrating their incapacity to react to the power, influence and motive of these new non – state actors. With that said, when seeking to predict and analyse the future aims and practices of public diplomacy, and with that, how best an individual MFA can adapt the historic component of diplomatic representation to meet the changing demands and needs of the new international

[21] UN News. UN rights expert deplores 'profound failure of diplomacy' as Syria conflict escalates, *United Nations News. Retrieved from https://news.un.org/en/story/2015/06/502402-un-rights-expert-deplores-profound-failure*-diplomacy-syria-conflict-escalates. Last accessed 4th April 2018.

order, we do require some sort of blueprint, a benchmark, in which to base our predictions and recommendations on.

For us, this blueprint comes in the case of Denmark. A nation which not only acknowledged the changing landscape of diplomatic representation, but acted upon it, and swiftly. Recognising that the intensity of growth of international actors arose nearly exclusively from technological actors based in Silicon Valley, and that few issues today lie completely outside their purview, Denmark made the pioneering move to appoint veteran diplomat Casper Klynge as the world's first 'Tech Ambassador' to Silicon Valley. The spark, or the catalyst for this appointment came in 2016, when Denmark noted that their national GDP for 2016, was smaller than Facebook's entire market capitalisation. When publicly announcing this decision, the Danish Minister for Foreign Affairs Anders Samuelsen stated: 'Companies such as Google, IBM, Apple and Microsoft are now so large that their economic strength and impact on our everyday lives exceeds that of many of the countries where we have more traditional embassies'.[22]

With that said, one should note, that Ambassador Klynges appointment did not emerge in a vacuum. Priya Guha, who held the title of the United Kingdom's consul general to San Francisco for five years, worked extensively to convince tech start-ups to expand to Britain. The Republic of Ireland also has a presence in Northern California, with its office directing a large proportion of their attention to the technological sector, alongside other sectors like biopharmaceuticals and financial services. However, Denmark's decision was unique. Formally creating the first ambassadorial posting to Silicon Valley, captured the attention of people around the globe, and sent a strong signal to the international community at large; that the global power game was changing. This appointment demonstrated clearly, what many MFAs have yet to even acknowledge, that many aspects of the historic roles and responsibilities of the nation state Ambassador and Embassy have changed, chief among them, the multitude of actors who now hold power in the international system, and who thereby influence both foreign and domestic policies. As a result, MFAs are being forced to re-examine *who* represents them in the global sphere, *where* and *how*.

Regarding the direct implications for the public diplomacy efforts of the Danish MFA, they emerge as distinct and novel when viewed in the lineage of diplomatic history. This is primarily done by leveraging the heightened influence and reach these technological giants possess, and the increasing power they now hold over the global public domain at large. Denmark may be a relatively small country compared to, say, Germany, but those metrics no longer weigh up in the same way. States and the governments they appoint have ceased to dominate people's existence in the same way they did a century ago. Instead, it's a new era dominated by cross-national identity politics, (mis)information and data. Denmark's prioritisation of techplomacy – is in itself a public diplomacy tool for the state. It is an area where according to Klynge "we punch above our weight" among the 28 EU member states.[23]

[22] Baugh, P. (2017). 'Techplomacy': Denmark's ambassador to Silicon Valley, *Politico,* Retrieved from https://www.politico.eu/article/denmark-silicon-valley-tech-ambassador-casper-klynge/. Last accessed 4th April 2018.

[23] Nikoloay Nikolov, There's now an ambassador representing his country in Silicon Valley — and we should've had them all along, *Mashable*, Retrieved 15 July 2018, https://mashable.com/2018/04/10/casper-klynge-tech-ambassador-silicon-valley-denmark/?europe=true#PhEdUhQgNaqr

Klynge himself acknowledges that public diplomacy is now being conducted in a new era where material forces or wealth are not the most important trump card, but data and information. Technology in all its guises, he states "will define the winners and losers of tomorrow and whether countries, including developing economies, will be able to reap the benefits of the digital age".[24]

Another key benefit of the growing inclusion of non-state actors at the 'table of power', and the increasing power of multilateral diplomacy, and has been for those MFAs who lack the resources to establish resident embassies in all countries and can look to the virtual world as a strategic alternative. Virtual reality may give rise, for instance, to a new generation of virtual embassies. Traditionally, virtual Embassies were used to overcome the limitations of traditional diplomacy such as lack of bi-lateral ties. America's virtual Embassy to Teheran, for instance, was meant to facilitate dialogue between American diplomats and Iranian society. Studies suggest, however, that virtual Embassies have failed thus far to elicit dialogue or create relationships between diplomats and foreign populations[25]. Yet that may change in the future as virtual reality may create a more realistic, and intimate experience in which diplomats meet face-to-virtual-face with foreign populations, converse with them in real time and even engage in joint cultural or sports activities. Therefore, far from being in danger of becoming an endangered activity—rendered increasingly irrelevant by technological progress—diplomatic representation in the digital age, can be harnessed to increase diplomatic power and become a critical instrument in an age of complex interdependence and of globalisation.

Concluding, we can see that future technologies and the actors that represent them, are likely to continue to digitally disrupt diplomatic representation, first in terms of the growing incorporation of non-state entities into global affairs; which has been illustrated clearly with the proliferation and intensification of digital power houses, such as Google, Facebook and Twitter, a proliferation of influence which shows no signs of slowing down, and second, in how MFAs choose to response (strategically or otherwise) to their increasing inclusion in the international realm at large. It is therefore more important than ever that the diplomatic arena and all those reside within it, recognise this increasing evolution, and the power and influence both entities can hold to ensure the relevance and viability of the diplomatic craft in the 21st century, particularly in how it shape and push forth the aims and objectives of a MFAs public diplomacy strategy. Technological companies too should seek to learn the tools and apply their resources towards diplomacy to engage with countries on a national level, rather than just through global mechanisms as they currently do.

Conclusion

As digital technologies continue to re-shape the context in which public diplomacy operates, we should expect the medium of public communication to be increasingly dominated by the use of machine learning and intelligent assistants, the fading boundary between foreign and domestic affairs to make room for digital domestic diplomacy and the rise of technological

[24] Baugh, P. (2017). 'Techplomacy': Denmark's ambassador to Silicon Valley, *Politico,* Retrieved from https://www.politico.eu/article/denmark-silicon-valley-tech-ambassador-casper-klynge/. Last accessed 4th April 2018.

[25] Emily Metzgar,'Is it the Medium of the Message? Social Media, American Public Relations & Iran', *Global Media Journal*, (2012), pp. 1-16.

based non-state actors to challenge notions of power and influence in the realm of foreign policy making. Despite these inevitable challenges, the future of public diplomacy in the Digital Age remains bright as long as MFAs, embassies and TBNSA will continue to creatively and positively engage with digital technologies and stay committed to the mission of building bridges between offline and online communities. As data is turning into the "new oil", the opportunities for public diplomacy to grow as a field of practice are real and game-changing as they can play an influential role in how individuals, communities and societies not only interact with each other but also how they re-define themselves as social and political actors in the Digital Age.