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Developing ethical approaches to data and civil society: from availability to accessibility

Evan Easton-Calabria^a & William L. Allen^b

^a Wolfson College, University of Oxford, Oxford, UK

^b Centre on Migration, Policy, and Society, University of Oxford, Oxford, UK

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Developing ethical approaches to data and civil society: from availability to accessibility

Evan Easton-Calabria^a and William L. Allen^{b*}

^a*Wolfson College, University of Oxford, Oxford, UK;* ^b*Centre on Migration, Policy, and Society, University of Oxford, Oxford, UK*

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This research note reflects on the gaps and limitations confronting the development of ethical principles regarding the accessibility of large-scale data for civil society organizations (CSOs). Drawing upon a systematic scoping study on the use of data in the United Kingdom (UK) civil society, it finds that there are twin needs to conceptualize accessibility as more than mere availability of data, as well as examine the use of data among CSOs more generally. In order to deal with the apparent “digital divide” in UK civil society – where, despite extensive government rhetoric about data openness, organizations face not only the barriers of limited time, funds, and expertise to harness data but also the lack of representation within existing data – we present a working model in which ethical concerns accompanying data utilization by civil society may be better accounted. This suggests there is a need for further research into the nexus of civil society and data upon which interdisciplinary discussion about the ethical dimensions of engagement with data, particularly informed by insight from the social sciences, can be predicated.

Keywords: Big Data; civil society; ethics; United Kingdom; digital divide

Introduction: doing the best with tons of information

This is a world where massive amounts of data and applied mathematics replace every other tool that might be brought to bear. Out with every theory of human behaviour, from linguistics to sociology. Who knows why people do what they do? The point is they do it ... With enough data, the numbers speak for themselves. (Chris Anderson, “The End of Theory: The Data Deluge Makes the Scientific Method Obsolete,” *Wired Magazine* [2008])

Bertrand Russell declared that, in case he met God, he would say to Him, “Sir, you did not give us enough information.” I would add to that, “all the same, Sir, I’m not persuaded that we did the best we could with the information we had. Toward the end there, anyway, we had tons of information.” (Kurt Vonnegut, “Religion,” *Palm Sunday: An Autobiographical Collage* [1981])

Given rapid digital transformations, the words of Chris Anderson in 2008 can read as an unapologetic statement of the promises of “Big Data.” However, multiple scholars (Graham 2011; Mossberger 2003; Norris 2001) have critically pointed out that processes of creating and using data are actually enmeshed within complex systems of values, social networks, and human decision-making. Crucially, marveling only at the “velocity,

*Corresponding author. Email: william.allen@compas.ox.ac.uk

volume, and variety” (Laney 2001) of Big Data obscures deeper questions: not only what is being done with data but who is able to access it? What are the societal effects of this accessibility – or lack thereof? Vonnegut, an American author who often expressed concern about humans squandering ecological, intellectual, and technological resources, captured the significance of questions like these over 25 years earlier. His call to “[do] the best with the information at hand” can be applied to contemporary critical politics of data and data-driven research. Despite having “tons of information,” what does it mean to “do the best” with data in a world where inequalities of capacity, resources, and access threaten to create further divisions (Graham, Hale, and Stephens 2012; Graham and Shelton 2013; Sciadas 2003)?

Uprichard (2013, 5) echoes these concerns from a social scientific perspective when she argues that “we cannot afford to let big data run away without good social theories about what to do with the masses of data we are producing.” Indeed, vast amounts of data including personal information are collected in real time, along with an increased capability to collate and analyze them. These data subsequently “require new forms of processing to enable enhanced decision making, insight discovery and process optimi[s]ation” (Asquer 2013, 9). “Bigness” refers not only to the absolute size of data-sets but also to the idea that accessing and analyzing vast amounts of information about social and economic interactions can provide novel, macro-level perspectives on complex issues. Accompanying the potential benefits of documenting and illuminating dynamic aspects of sociality are the needs for tools, knowledge, and time in order to engage with data. Ethical dimensions include loss of confidentiality, manipulation or corruption of data, and widening divisions generated by restricted data access (Cavoukian 2012, O’Hara 2012). A so-called digital divide has opened between organizations, businesses, and individuals, referring both to a lack of funding, time, and expertise to make use of large existing data-sets and to a lack of representation *within* such data-sets themselves (Graham 2011). Clearly, there exists a need to develop ethical normative frameworks, or sets of principles, to guide relevant actors as they navigate the challenges and opportunities presented by large-scale data.

This research note aims to contribute to this literature by reflecting on the gaps and limitations which confront development of interdisciplinary ethical frameworks regarding data availability. Who is participating in data collection through access and analysis? Who is represented within Big Data and who is not? What implications does this have for an “ethical” society? We argue that these are important questions to consider when examining the impacts of data use on society, as well as when developing ethical frameworks for the use of data in different sectors. Although recent efforts have endeavored to advance ethical approaches to data and technological change, notably the UNESCO’s Ordinary Session of the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST; UNESCO 2014) less work exists which examines how such approaches can be adapted and implemented within specific sectors – as well as how these approaches reflect changes in attitudes and values toward the use of large-scale data in social science. This is particularly salient in the case of the United Kingdom (UK), where recent government policy toward making data more open and available has not yet addressed the accessibility of these data by various sectors.

We draw upon a scoping study on the use of data in UK civil society, which forms the foundation of an ongoing project investigating to what extent certain values underpin preferences for data and data-driven research in civil society activities. Civil society organizations (CSOs) are defined here as lying outside the purview of profit-making businesses and public sector organizations (Bastow, Dunleavy, and Tinkler 2014). These

include nongovernmental or third sector voluntary organizations; policy influencing bodies including think tanks; philanthropic organizations; campaigning charities; recreational, cultural, environmental charities; and entities such as finance mutual and cooperatives (NCVO 2014; Evers and Laville 2004). As entities engage with people and address current issues within society, they have a significant stake in marshaling data and data-driven research to achieve their agendas (Bastow, Dunleavy, and Tinkler 2014). Yet, we argue that digital divisions heavily affect UK civil society: despite a government rhetoric promoting the salience of civil society as well as the importance of making large-scale data available, the sector largely finds itself without access to data and under-represented within it.

In the following sections, we overview the UK political and civil society context in which discussions about the importance of data are occurring. Then, we turn attention to two main concerns which have implications for developing ethical frameworks with respect to the uptake of data and data-driven research in society: (1) little is actually known about how UK CSOs negotiate access to and utilize Big Data in the first place; and (2) more work remains to be done in conceptualizing “accessibility” beyond merely making data and data-driven research open and available to CSOs. Finally, we present a conceptual model of the ways that CSOs and data intersect which may help inform future research and normative debates.

Methods and data

Following Arksey and O’Malley (2005), this study employed a scoping study methodology to map the literature underpinning the concepts of Big Data and civil society in the UK context. Often part of a longer process of systematic review, scoping studies are useful when there is an undefined amount of evidence at hand (Levac, Colquhoun, and O’Brien 2010). Identification of relevant studies occurred in a series of iterative waves from January to March 2014 using Social Science Citation Index (SSCI), Social Science Research Network, Applied Social Sciences Index & Abstracts (ASSIA), Cochrane Library, and the Campbell Library, supplemented by Google Scholar searches.¹ Initially retrieved studies prompted further searches of bibliographies, which in turn generated more relevant literature. Each piece of literature was initially screened on keywords, title, and, if available, an abstract. Relevant studies were then obtained, charted, tagged with keywords, and stored in an electronic database. A total of 202 items were collected in the course of this study. Table 1 breaks down these items into different categories by type.

Table 1. Overview of referenced literature in the review.

Source type	Number
Working papers and presentations	49
Books	14
Blogs	3
Newspaper articles	8
Peer-reviewed journal articles	77
Reports	40
Websites	11
Total number of items reviewed	202

The UK context: “Big Society,” Big Data, and CSOs

The UK features a large number of CSOs: as of 2010, there were an estimated 900,000 registered (NCVO 2010). Civil society has gained a particular focus on Britain since 2010 and the rise of Prime Minister David Cameron’s “Big Society,” which focuses on decentralizing government power in England and Wales while empowering citizens and civil society to participate in “building” society (Conservative Party 2010). Although a range of policy initiatives were introduced under the auspices of this rhetoric, including government making it easier to establish and run CSOs, many are critical of the aim to “build” CSOs to undertake activities such as resource allocation previously tasked to the public sector (Alcock 2010; McCabe 2010; Tonybee 2010). Since then, the Prime Minister has had to address criticism that the Big Society emphasis on volunteerism is a “cover for cuts” (Butler 2013) and, more recently, assertions that it has quite simply failed (Helm 2014; Twivy 2012). Overall reactions to Big Society by civil society have been mixed. A recent study of third sector organizations overwhelmingly found a high level of skepticism regarding its concept and agenda combined with awareness of the opportunities that also reside within it (Macmillan 2013). These mixed reactions extend from a main paradox of the Big Society discourse that the proposed empowerment of civil society exists alongside budget cuts to the sector (Cabinet Office 2010).

One important facet of Big Society initiatives that has actually seen further government investment, however, is efforts to make large data-sets accessible – and in particular Open Government Data (OGD). These data-sets are “accessible (e.g. online), in standard and re-useable formats, and under licenses that allow for data to be re-used in different contexts” (Davies 2010, 2). An example of how OGD is used by civil society involves the work of the UK Citizens Online Democracy (UKCOD), a registered charity in England and Wales which has used OGD to initiate and maintain citizens’ interaction with government, such as creating theyworkforyou.com. This website invites citizens to monitor their MPs through emphasizing transparent data about voting as well as posting speeches, meeting minutes, and budgets (MySociety 2014).

Although European Union (EU) countries have traditionally had restrictive data policies, the EU Commission recently broadened laws governing open data (EU Commission 2013). The UK, as a founder of the Open Government Partnership (OGP) which aims to support “domestic reformers” (OGP 2014) globally to make their governments more open, has become an important voice in promoting transparency with respect to data. Recent Big Society initiatives such as the Open Data Institute, the Data Strategy Board, and the Public Data Group, have produced further partnerships as the UK Government promotes the benefits of providing data for multiple uses (Hammell et al. 2011, 5). Francis Maude, Minister for the Cabinet Office, recently characterized open data as “a raw material for economic growth, supporting the creation of new markets, business and jobs and helping us compete in the global race” (Cabinet Office 2014). The government’s rhetoric of transparency was further demonstrated when it signed the G8 Open Data Charter in July 2013, which set a number of principles for the release of and access to data by G8 Governments (G8 2013). Finally, in February 2014, the UK Government announced £1.5 million in funding through the Release of Data fund to open up public data for improving transparency and accountability (Cabinet Office 2014). This additional funding is aimed to both support projects that make local public data available and provide training to senior civil servants.

Although the UK Government has taken important steps toward opening large data-sets to public scrutiny and reuse, this must also be examined alongside critical questions

about what ultimately is or normatively should be achieved through progressive data policies. Indeed, transparency and open data are important components of more just and ethical decision-making. Yet, the availability of data does not equate to the accessibility of data – particularly in the case of CSOs. Indeed, identifying barriers to accessing data is a key component of understanding the digital divide, as well as recognizing where there is or could be a lack of representation within data (Graham and Shelton 2013). Our scoping study reveals two main challenges in this respect: the lack of research on how data are linked to civil society activities, and how such data can actually be conceptualized as “accessible.”

Lack of research on – and representation of – civil society and data

Despite open recognition of the power and potential of data, as well as the government’s emphasis on utilizing civil society in place of public services, there has been surprisingly little overlap between the two. A tenet of Big Society is to bestow more responsibility upon the public and civil society to build Britain (HM Government 2010, 11), yet a range of political, academic, and civil society actors themselves question the evidence base claiming that civil society is capable of fulfilling this task. Despite a more recent attempt to reaffirm the role of civil society within Big Society (Woodhouse 2013), there are inadequate levels of funding and an ongoing lack of government emphasis on undertaking research on civil society (Alcock 2010, McCabe, Phillimore, and Mayblin 2010). Existing literature on data use by CSOs is largely technical, coming from data analysts or organizations such as the Nominet Trust, the UK’s largest social technology funder. While potentially helpful for organizations seeking to utilize data more successfully, this research remains largely uncontextualized by leaving out information and critical analysis about why civil society lacks the tools necessary to harness data in the first place. Therefore, despite the obvious merit of this body of literature, deeper ethical issues integral to the discussion of the digital divide in UK civil society remain unaddressed.

One such issue is that of representation and inclusion in data. Kennedy et al. (2014) argue that inclusion is an integral element in data collection, stating that digital analytics in the public “are meant to represent and serve the public as a whole, rather than any particular social group, and so inclusion is a central normative principle.” Graham and Shelton (2013) aptly state that:

[P]resences and absences in data matter not simply because they are evidence of material inequalities manifesting themselves in digital contexts but also because digital data in turn have real, material effects in the world ... the potential gaps in such data, as well as their policy implications, remain unclear. (Graham and Shelton 2013, 258–259)

These observations illustrate a key component of the digital divide, namely lack of representation of civil society within Big Data. Toepler suggests that “one of the few remaining big mysteries in nonprofit sector research is the question of what we are missing by excluding those organisations from empirical investigations that are not easily captured in standard data sources” (2004, 236). This existing data gap has been echoed by others such as the Third Sector Research Centre (TSRC) regarding the “below the radar” community sector, defined as “small voluntary organisations, community groups and more informal or semi-formal activities in the third sector” (McCabe 2010, 3), believed to be the largest part of civil society. Many of these CSOs are so small that they largely do

not “fit” in the Big Data accumulated on civil society. It is therefore that much harder to discover how and if they make use of it, as well. One result is a lack of comprehensive knowledge surrounding if and how UK civil society utilizes data – upon which more normative questions of how the intersection of Big Data and UK civil society can be ethically promoted and enhanced.

Drowning in data: making data accessible as well as available

A joint report of software firm Blackbaud and the consultancy nfpSynergy (2014) shows that charities, the most common element of UK civil society, struggle to use data, especially in regard to fund-raising. Lack of knowledge and funds were two major barriers to making better use of data, corroborating a previous broader study on nonprofits (NTEN/Idealware 2012). Out of the 338 charity professionals surveyed by Blackbaud and nfpSynergy, only 30% stated that they were able to make good use of data for fund-raising and marketing. Correspondingly, 70% of UK charities stated that untapped potential existed in their private data, but many felt overwhelmed at how to access it. Azadi Sheridan, product manager at Blackbaud Europe, explained that:

The sheer volume of data generated in modern fundraising means some not-for-profits feel as if they are drowning in data and struggling to make sense of the information they hold on donors and supporters. Data can be invaluable for fundraising and marketing, but not-for-profits must be able to analyse that data to get the maximum value from it. Not utilising social media data [used by only 15% of respondents] is a major missed opportunity to better understand supporters. (Blackbaud & nfpSynergy 2014)

This is echoed by Gyateng, Pritchard, and de Las Casas (2013), who discuss three main benefits of private data for charities: better understanding of issues and needs, improving service delivery or support functions such as fund-raising, and increasing understanding of outcomes and impact. Yet, despite these potential benefits, they found few charities actually harnessing data in such ways. Two major barriers included both the supply of and access to data. Whilst larger data collection is posited to increase the effectiveness of NGOs (Kanter and Paine 2012), not everyone in the sector finds them worthwhile. Debra Allcock Tyler, chief executive of the UK charity Directory of Social Change, colorfully captured the increasing pressure felt by charities to provide what she terms “evidence of the bleedin’ obvious” (Tyler 2014):

Charities do know whether or not the work they’re engaged in is any good. The real problem is not that they don’t know, or even that they don’t measure it, it’s that they don’t measure it using the same metrics, or language, as those people exhorting them to “demonstrate” their impact. (Tyler 2014)

This concern is echoed by others in the field who also see recent support for public contracts and regulatory and accountability frameworks as threats to both independence and unreasonable expectations to measure impact (Smerdon 2009).

Learning from data usage by UK CSOs

Despite the challenges outlined above, several positive and important themes emerge from this scoping study. First, UK civil society is utilizing data in often innovative and surprising ways. These range from the employment of geodata to enable real-time trip

planning (Hammell et al. 2011), to the creation of evidence-based research databases on effective child interventions (Barnardo’s 2014), to the opening of council data to enable public–private Big Data “Hackathons” where data experts, citizens, and CSOs converge to tackle specific social issues (Sousa 2013). A number of organizations also exist to support civil society in harnessing data such as DataKind UK and Operational Research Pro Bono, and there is a growing interest in “data labs” to increase nonprofits’ ability to measure impact (Gyateng, Pritchard, and de Las Casas 2013). Such knowledge of the current utilization of data by UK CSOs enables us to better envisage the benefits that the sector could offer through better harnessing of data.

There is, however, not yet a framework in place with which scholars can coherently analyze the various ethical dimensions inherent within CSOs’ employment of data, including identifying barriers to accessing it – although some have made compelling cases for such an enterprise (Richards and King 2013). Figure 1 outlines three main uses of data for CSOs emerging from the scoping study and invites consideration of the risks and opportunities present in the employment of data by CSOs.

Intra-organizational data usage

Funds allocated for intra-organizational data usage can be limited, particularly in smaller CSOs, adding to the burden of expectations to present such findings by donors and other relevant bodies. This also introduces the risk of presenting any collected data without consideration of the limitations of those data, which in turn may affect the decision-making abilities of these organizations. Conversely, recognition by funders of the time and funds needed for thorough engagement with data could enable clarity about previous outcomes or existing gaps in practice, thus improving an organization’s functioning.

Public engagement and interfacing

Whilst this scoping study did find evidence of data used for public engagement, it was generally limited to organizations either dedicated to marketing or large enough to have departments focusing primarily on publicity and communication. This necessarily means that many organizations are unable to target potential donors or reach potential

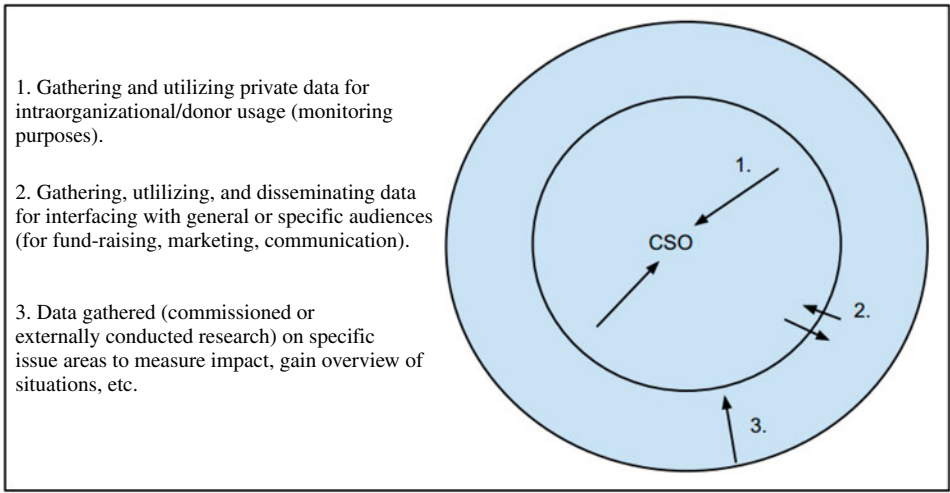


Figure 1. Purposes of data for UK CSOs.

beneficiaries – and due to their virtual anonymity are often left out of research on civil society.

Targeted research and data collection

Increasingly, the research undertaken by CSOs on past initiatives or their organizational issue areas draws upon publicly available data-sets like the Office for National Statistics Census or Labour Force Surveys. However, it is important to consider which data-sets differently sized CSOs are accessing or able to access. Large organizations like the Overseas Development Institute (ODI) often engage with complex, national data-sets due in part to the resources they have to do so. The same cannot always be said of smaller CSOs. This illustrates one kind of a digital divide in civil society: available tools and expertise employed for data collection and analysis differ among organizations despite similar interests in generating knowledge through data.

Conclusion: moving from data availability to data accessibility

This research has found important opportunities as well as limitations for civil society to utilize data, and Big Data in particular. A lack of capacity or knowledge is especially important to consider in the current UK political context where the concept of Big Society underlies many government commitments and policies and creates growing pressure for CSOs to demonstrate impact and provide evidence as forms of justification for programs and “value.” Gyateng, Pritchard, and de Las Casas (2013) state that, “ideally, the supply of data for understanding outcomes should also offer some kind of analytical service, enabling those charities without the necessary skills to participate and understand the impact of their work.” A paradox of the government is its supposed commitment to data-driven evidence and its lack of in-depth examination of civil society itself. Combined with budget cuts to the sector and a general era of fiscal austerity, it seems unclear if the government is truly aware of CSOs’ needs and interests (Alcock 2010; McCabe 2010). However, it is apparent that UK civil society is deeply affected by the digital divide, largely left without access to data due to restricted time, funds, and expertise, and also not represented within data in the first place.

How can data become accessible and not merely available for UK civil society? As revealed by this study, providing means for organizations to truly access the available data through further education or wider collaboration with higher educational or technical experts, supported by policy and targeted funding, is one important avenue. With this, however, comes the practical element of also providing the level of expertise needed to enable critical engagement with data-sets, where awareness of their potential limitations enables organizations to navigate them properly. There is grassroots evidence of collaboration among CSOs and individuals working to close digital divides. The rise in data Hackathons, for example, demonstrates the existence of opportunities for sharing and creating knowledge that lies outside of the state. Further linking of academic experts on Big Data as well as citizens around specific issue areas provides another way of overcoming digital barriers to access.

Currently, it seems that the possibilities for UK civil society to utilize data are expanding in some ways (institutional openness and availability) while contracting in others (expertise, time, and funding). Despite government rhetoric and policy development in the arena of data “openness,” barriers to accessing data faced by civil society are manifold with effects that extend beyond the sector. This research note revealed that promoting a process of enhancing data availability requires both better understanding of

precisely what civil society is confronted with as it engages with data and critical discussion about the aims of that engagement in the first place. Interdisciplinary debate about these issues must inform development of ethical principles that guide future policy as well as practical norms surrounding civil society uptake of data. In Vonnegut's language, there are two questions for scholars and those concerned with developing ethical approaches for data: how do we "do the best" with the tons of information at hand, and for whom and for what purposes does this "best" look like? Further social scientific research on the use of data in underrepresented sectors such as civil society seems a fitting place to start.

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Note

1. Keyword search terms (United Kingdom OR UK OR Brit* OR Engl*) AND (Civil Society OR Third Sector OR Volunt* OR NGO OR Nongovern* OR Charity) AND (Big Data OR Data OR Large Data-sets OR Evidence-Based OR Evidence-Based Research OR Data-Driven OR Data-Driven Research OR Data-informed OR Data-informed Research OR Research).

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