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The strategic importance of information policy for the contemporary neoliberal state: the case of Open Government Data in the United Kingdom

1. Introduction

Information policy has been claimed as a key tool in the exercise of state power that has increased in significance substantially over the last 30-40 years, resulting in the development of an “informational state” (Braman, 2006). This periodization aligns with the era of neoliberalization; the political economic model that is currently in crisis. This suggests that information policy could be a potentially important site of power and struggle in the response to current political and economic crises. In the UK, it is widely recognised that a “very active period of scrutiny within the government of the UK’s national information policy” began around 2007 (Saxby, 2011, p. 1), the same year as the first indications of economic crisis developed. Whilst this increase in information policy activity was not the direct outcome of the evolving economic crisis, the interrelations between the development of information policy and political responses to the crises during this period should be explored.

The aim of this article is to begin to analyse in what ways information policy has played a strategic role in the response of the UK’s centre-right coalition (Conservative-Liberal) government to the current political economic crisis since coming to power in 2010, and to relate these findings to Braman’s (2006) claim regarding the development of an “informational state”. Focusing specifically on the case of the Open Government Data (OGD) policy initiative in the United Kingdom, the article analyses the development of OGD policy by the UK Government during the period 2010 to 2013 as it responded to deepening crises and engaged in efforts to push ahead with a neoliberal agenda. Drawing primarily on analysis of policy documentation and interviews with UK policy makers and OGD advocates, and a theoretical framework rooted in critical political economy, the article analyses the

intersection of OGD policy with major public policy initiatives of the current government: the Transparency Agenda, the Open Public Services Agenda, the privatization of key public assets, and the economic growth strategy.

The rest of the article is structured as follows. The first section outlines the research methods used to generate the empirical data on which the arguments are based. The second section introduces the analytical framework for exploring this data, with an exploration of key trends within the development of the UK's neoliberal state relevant to the OGD policy initiative. This section also makes the case for the importance of information systems and policy to the process of neoliberalization. The third section introduces the concept of Open Government Data, and provides a brief overview of the UK's OGD initiative, including the legislative framework that it exists within. The fourth section outlines the findings of the research, presenting a thematic analysis of the political economic agenda that the UK government are developing through the opening up of government data. The article concludes by arguing the case for the strategic importance of information policy for the neoliberal state based on the UK government's response to recent political and economic crises, yet questions the framing of these observations solely in terms of the development of an "informational state" (Braman, 2006).

2. Research methods

The arguments made in this article are based on research undertaken during a larger research project on the politics of Open Government Data in the United Kingdom. Data were collected via in depth interviews with UK based civil society OGD advocates (11 interviews – 4 'core' advocates who had at some point undertaken an official role advising the UK government on Open Data or Public Sector Information; the rest 'peripheral' advocates), senior civil servants with policy responsibility for OGD (4 interviews), local government

officials working on OGD projects (5 interviews) and one interview with a representative of the corporate public sector information re-use industry. This interview data was complemented by a series of observations of 5 local, 5 national and 3 international OGD events; a content analysis of the open-government@okfn.org mailing list which has a strong presence of UK based OGD advocates; a policy analysis of all UK national government OGD related policy documentation and advice published between 2009 and 2012; and a review of published policy documentation and research on the re-use of public sector information in the UK and Europe. The data collected aimed to gain understanding of the development of the OGD initiative, including the ideas and activities of advocates, and how the state-based actors engaged with the phenomenon and responded to the ideas put forward by OGD advocates.

A thematic analysis was undertaken of the collected data and the following themes were identified from interviews, observations and mailing list content analysis:

- Developing an OGD community
- Developing an OGD technical and information infrastructure
- Building alliances between civil society, state and industry
- Ideational constructs of civil society OGD advocates
 - Social and economic ends; Democratic participation; Political crises; Public sector governance; Promoting innovation; Equality in economic production
- Ideational constructs of OGD advocates in the state and industry
 - Trust in politicians and the state; Citizen participation and engagement; Citizen-consumer choice; PSI Re-use market liberalization

The thematic analysis of OGD policy documentation also identified the following themes:

- Public services marketization (Open Public Services)
- Economic growth
- Transparency

This article reports on a subsection of this larger research project, specifically the adoption of OGD policy by the UK's centre-right coalition government during the period May 2010 - 2013. Thus, the analysis is focused thematically on the ideational constructs of OGD advocates in the UK state, and themes emerging in UK national government OGD policy documentation.

Due to the sensitive political nature of some of the discussions all interviews were carried out on the condition of interviewees' anonymity. Interview data referred to in the body of the article is therefore cited with reference to the category of interviewee (e.g., Peripheral Civil Society), rather than individual names or identifiers.

3. Neoliberalism and information policy

As leading British political economists Hay and Payne (2013) recently stressed, "political economy analysis is contentious stuff. We don't ever stand on especially firm ground. We make judgements, and then see how events unfold, adjusting our thinking as we go" (p. 5). In light of this understanding of the critical political economy approach that is adopted in this article, an analytical framework, grounded primarily in research by British political economists, will be outlined in order to explicitly underline the approach to the analysis of key themes emerging in the empirical data.

The era of neoliberalization is widely understood to have developed during the structural crisis of the Keynesian welfare state in the 1970s as interest grew in the ideas of economists such as Friedrich von Hayek and Milton Friedman. Within the space of a few years during the 1970s, the ideas of these neoliberal economists began to draw more widespread support as an answer to the perceived failings of the Keynesian model in institutions such as the OECD, World Bank, IMF, and the governments of the UK and USA (Crouch, 2011, p. 15-6). Whilst a variety of neoliberalisms have unfolded in different locales,

and definitions of neoliberalism are therefore debated, a generally agreed criteria is a preference for market forces over other, particularly state based, forms of economic organisation and management. Nevertheless, state intervention in fashioning the conditions for this market-orientated economic model has generally been a key feature of neoliberal governance in practice (Saad-Filho & Johnson, 2005, p. 4).

Crouch (2011, p. 61) argues that neoliberal economists are generally interested in increasing the overall level of wealth in an economy via market forces; however they have tended to be “explicitly uninterested in the distribution of this wealth”. If questioned on the issue of wealth distribution, the general proposition has tended to be that the resulting economic growth will enhance the general level of wellbeing in society as a whole due to ‘trickle-down’ effects. Although recent years have seen international organisations place increasing emphasis on global poverty reduction and development, the same period has also witnessed an increase in global economic inequality (Harvey, 2007, p. 17). Economic inequality has also increased at the national level in neoliberal states. This trend began during the early 1980s in the UK and USA, and in many other countries from the late 1980s, as neoliberal economic policies were implemented, resulting in the incomes of the wealthiest rising at a faster rate than the poorest (OECD, 2011). The problem of economic inequality in the UK has also become more deeply entrenched during the recent economic crisis (Wren-Lewis, 2013; Randeep, 2011).

Recent research suggests that a lack of focus on redistribution has had a significant negative impact on many apparently wealthy societies in terms of both general wellbeing (Wilkinson & Pickett, 2010) and economic growth and efficiency (Stiglitz, 2012). It is clear that for many researchers in this field deepening inequality is not simply a moral issue, but one of social and economic inefficacy. This research thus suggests serious failings in the basic factors of neoliberal economic development.

Despite these weaknesses in the basic propositions, a neoliberal logic has become dominant within economic governance in the UK (and elsewhere to a greater or lesser extent) over recent decades. This process has been actualised in a variety of ways, including, but not limited to, efforts to expand the commodification of information (May, 2006); the deregulation (and, some argue, reregulation) and subsequent growth of the financial services industry (Duménil & Lévy 2005; Major, 2012); the introduction of New Public Management practices to the public sector (Le Grand, 2007); and, a hollowing out of democratic forums and increasing political power for global economic elites (Murphy, 2000). Whilst OGD, similar to other ‘open initiatives’, can be understood as a shift away from the restrictive forms of information commodification that deepened during the neoliberal era, in order to understand better the relationship between OGD and the UK’s evolving neoliberal state it is crucial to appreciate the emergence of OGD within this broader context of neoliberalization.

The neoliberal preference for market based economies combined with competitive pressure from the US financial sector, resulted in UK government policies since the 1980s until recently to deregulate the financial markets (Hay, 2013a). As Duménil and Lévy (2005, p. 10) observe, this led to “the dramatic growth of financial institutions” and “the implementation of new relationships between the financial and non-financial sector, to the benefit of the former”. As many British political economists have argued, the UK’s growth model during this period became increasingly dependent upon the financial sector (Hay, 2013b; Gamble, 2009; Thompson, 2013), with around 8.5% of the UK’s Gross Value Added coming from the financial and insurance sector in 2011 (Berry, 2013, p. 15). Financial market innovation in the UK, and elsewhere, led to a deepening process of financialization through the development of a range of new financial products; one example being the weather derivative which will be analysed in relation to the UK Government’s Open Government Data policy below. This shift in the economic structure of the UK economy led to a

significant accumulation of political and economic power by the financial industries; a process that deepened as high levels of public spending from the late 1990s became dependent upon tax revenues being generated from the sector (Coates, 2009, p. 425).

Further market orientated developments during this era can also be seen across the UK's public sector, often resulting from the introduction of New Public Management (NPM) practices. The implementation of NPM practices have impacted significantly upon the governance of the public sector. In line with the neoliberal predisposition to enforce the market form in all contexts, NPM aims to impose the competitive logic of the private sector into the governance of the public sector. For NPM advocates, such practices should 'modernise' public services that are deemed unresponsive to and remote from users and dominated by the interests of public sector workers who are producing inefficient and sometimes unneeded services at a high cost to the tax-payer (Crouch, 2011, p. 77). It is proposed by advocates of NPM that market-orientated management will lead to higher levels of quality and efficiency in public service provision (Le Grand, 2007).

In the case of the UK, ideas about New Public Management have been realised in a number of ways, including the increased fragmentation of public service provision through outsourcing, privatization and other forms of decentralization, and the institutionalization of competitive processes both within public bodies and between a variety of providers in the public, private and third sectors. Thus, whilst public spending increased during this period, some of which was funded by increasing tax revenue from the financial sector, much of this has flowed to private interests as providers of, or investors in, public services. For example, over recent years much infrastructural investment in the UK's public services has been funded by the Private Finance Initiative (Berry, 2013, p. 6), a highly lucrative form of investment for private interests that provides substantial returns from taxpayers over the next few decades far beyond the initial investment. Further, the users of these public services

have been increasingly constructed as ‘citizen-consumers’ requiring a range of information on the quality of services in order to enhance their position in the market, and the driver of quality service provision has shifted away from the notion of professional and public service ethics to targets and financial incentives (Crouch, 2011, p. 71-96).

The empowerment of large corporate and financial interests within the broader context of neoliberal globalization has also led to concentrations of power amongst economic elites in the shaping of many regulatory and decision making processes (Bowman et al., 2013). This growing concentration of political power correlates with a long term decline in public trust for democratic institutions of state in the UK (Dalton, 2004). Since 1987, for example the British Social Attitudes survey reports a significant decline in people reporting they trust government just about always or most of the time from a high 37% in 1987 to a low of 16% in 2009 (Park et al., 2010). Whilst the 2009 Expenses Scandal in which a large number of Members of Parliament in the UK were found to be engaged in widespread, and sometimes illegal, abuse of their expenses system, will have likely impacted upon this result, similarly low figures are reported during earlier years since 2000. The survey also reports that “trends in political efficacy have been similar to those...for political trust. Levels of efficacy have tended to be lower since 1994 than they were previously” (Park et al., 2010). The survey also reports declining trust in the financial sector since before the crisis, from 90% of people in 1983 believing UK banks are well run, to 63% in 1994, to 19% in 2009; “probably the biggest change in public attitudes ever recorded by the *British Social Attitudes* series” (Park et al., 2010).

These combined factors of financialization, New Public Management, and anti-democratic concentrations of political power amongst economic elites have led many to mount a critique of neoliberalism as being a process of ‘hollowing out the state’ and its

potential for instituting democratic and values driven forms of governance, in favour of a form of governance driven by an austere market logic.

The importance of information and its governance to this process of neoliberalization at both the global and national levels has long been recognised (Webster, 2006; Harvey, 2007). Exploring the relationship between information and power further, Braman (2011, p. 2) argues that since the 1970s, we have witnessed the development of an “informational state”: a form of state in which “governments deliberately, explicitly, and consistently control information creation, processing, flows, and use to exercise power”. This “informational” form of power, she argues, interacts with other forms of power by “manipulating the informational bases of instrumental, structural and symbolic power” (Braman, 2006, p. 25). Whilst the USA, Braman argues, is the “prototypical example of the informational state” similar developments have occurred across a range of other countries, including the UK which she describes as “rife” with “experimentation with new types of information policy tools” (Braman, 2006, p. 36-7).

This body of research suggests that there is a particular form of “informational power” that has developed during the period of neoliberalization. It is therefore timely to explore the possible role that information policy is playing in neoliberal responses to the political economic crises that have unfolded in the UK over recent years. The following analysis of the case of Open Government Data policy in the United Kingdom will illustrate that there is a strong argument to be made for appreciating the “strategic importance” (Braman, 2011, p. 2) of information policy in the exercising of state power by political actors aiming to progress key components of the UK’s neoliberal project through the current crises.

4. Open Government Data

Open Government Data is an information policy which provides a particular framework for governing the *re-use* by third parties of datasets that are produced by public institutions. In the UK, datasets produced by public bodies include major datasets such as mapping, meteorological, land use, public transport, company registration data, and government spending data, as well as smaller datasets such as the geo-locations of local council services. The proposal for Open Government Data argues that non-personal data that is produced by public bodies should be opened for all to re-use, free of charge, and without discrimination.

Whilst governments' interest in the re-use of public sector information has been an on-going and important, if relatively arcane, policy domain since the 1980s, by 2009 Open Government Data was becoming a key national policy initiative in both the UK and USA. In June 2009, during a period of political and economic crisis for the UK government with the unfolding of the MPs Expenses Scandal and the financial crisis, Sir Tim Berners Lee and Professor Nigel Shadbolt both innovators in the field of Web Science and strong advocates of OGD, were appointed as Information Advisors to the UK Government. By the end of the summer, these appointments had led to a beta interface for data.gov.uk – the UK's new OGD portal – being produced and shared with developers, prior to the portal going public in January 2010.

Many civil society advocates of opening up public datasets have tended to frame the impact of OGD as a significant democratization project counter to neoliberal hegemony, which could also generate significant digital innovation and, resultantly, economic growth (Bates, 2012, 2013). This discourse is also strong in much of the popular and research literature on OGD. For example, a range of contributors make such a case for OGD in

Lathrop and Ruma's (2009) edited book on Open Government. Linders (2012, p. 446) positions OGD as part of a developing public governance framework through which the "government treats the public not as customers but as partners" via multi-faceted forms of "citizen co-production" fuelled by the development of new online communications technologies. Saxby (2011) similarly argues that OGD marks a shift in government thinking to "invite broader public participation in delivery of policy" (p. 4). This perceived value of OGD is also found in practitioner publications, for example, Huijboom and Broek's (2011) claim that OGD could contribute to "fostering innovation and strengthening democratic participation...[and] enhancing law enforcement."

However, a number of more sceptical analyses have also been published, whose authors, whilst not necessarily negating the potential of OGD in developing more open forms of governance, argue for a less idealised interpretation more grounded in the broader political and social context. For example, Yu and Robinson (2012) argue that Open Government Data based transparency initiatives may give governments a way to increase their credibility on the world stage, without actually implementing any policies to increase accountability. Longo (2011) has questioned the motivations of politicians engaging with the OGD agenda, hypothesising that "some advocates...are motivated by beliefs (both explicit and unconscious) forged in the New Public Management (NPM) reform agenda", and Bates (2013) raises similar questions in an analysis of the relationship between civil society and state-based OGD advocates in the UK.

There is much to be gained from understanding the emergence and adoption of an initiative such as OGD within its broader social context. The following section presents key research findings of the thematic analysis of the strategic benefits of OGD policy as perceived by state based actors aiming to reproduce the UK's neoliberal form of state. Key themes to be explored are trust and transparency, the marketization of public services, the

privatization of public assets, and efforts to leverage financial market growth in the exploitation of societal risks.

5. Open Government Data and the reproduction of the neoliberal state

5.1 Transparency and the construction of trust in neoliberal governance

The crisis of legitimacy, and that I think is a fundamental backdrop to all of this [OGD in the UK] from a political perspective... With government reiterating that still as a motivation ... in the last couple of weeks [February-March 2011] (Interviews: Peripheral Civil Society).

During the period of OGD policy adoption in the UK, the government was facing a significant crisis of legitimacy due to a variety of political and economic crises. As the civil society OGD advocate quoted above observes, almost a year into the new government's administration, policy makers at OGD events were still expressing concern about this crisis of legitimacy and exploring how OGD might be used to overcome it. As outlined in the methods section, civil society OGD advocates framed their support for OGD in relation to a range of social, political and economic objectives, however for some of them OGD was part of their response to this broader breakdown of legitimacy for the UK's political establishment. For many peripheral OGD advocates, significant levels of frustration with, and distrust in, the UK's political establishment were expressed.

Events during the UK's invasion of Iraq in 2003 were cited by one civil society advocate as the point when they realised they could no longer have faith in British democracy. More recently, the Parliamentary Expenses Scandal of 2009 was also cited by four peripheral advocates as an important factor in their, or others, understanding of the importance of OGD. One advocate also pre-empted the "phone-hacking" scandal (2011-12),

which implicated sections of the UK's media, political elites and the Metropolitan Police Force in a range of unethical relationships and corrupt practices, with a critique of the relationship between the media, politics and business: "The media machine, which serves the political machine, which serves the business machine, and there is no place for people there. And this is what I rebel to and find disgusting" (Interview: Peripheral Civil Society). A number of OGD advocates also articulated a sense of disquiet about the political handling of the economic crisis which began in 2008, and concerns were articulated about the current government's effort to connect OGD to their agenda of cutting public service funding.

There was, therefore, a sense from many civil society advocates that the demand for OGD was *in part* a reaction to these multiple crises of the UK's neoliberal state and a citizens' movement to wrest control from a political and economic elite that could not be trusted. OGD was presented as a partial solution to enhance democratic participation, innovation, public sector governance and economic equality in response to some of the key issues with neoliberal governance in the UK as outlined above.

However, whilst OGD was perceived by these advocates as a means of empowering citizens beyond the confines of the neoliberal state, for many of the state-based advocates a primary motivation was to (re)build trust in the neoliberal form of state. As Worthy (2010) has argued, access to some form of government information has been a cornerstone of the UK Government's attempt to reverse the fragmenting trust of citizens in government institutions for well over a decade. For these state-based advocates, some concessions to transparency and participation were deemed to be required in order to (re)build consent for the neoliberal agenda:

It's fundamentally a political initiative, driven in large part by elected politicians' view that trust in government can only be maintained these days if government is

more open and transparent, and that's why politicians are prepared to be so masochistic about it (Andrew Stott, former Director for Transparency and Digital Engagement, Cabinet Office, "Challenging Openness" session FutureEverything conference, Manchester, 2011).

Related to the desire to generate citizen trust in public authorities, a number of state based interviewees discussed efforts to increase citizen engagement and participation with public bodies. These constructions of citizen engagement fit Linders' (2012) typology of citizen co-production. In some cases the type of citizen engagement articulated related to the development of public services i.e. the execution of services by citizens via a variety of engagement models including 'citizen sourcing', 'government as platform', and 'DIY government' (Linders, 2012). In other instances, participation was constructed as citizens holding public bodies to account, for example, through scrutinising spending data; framed by Linders (2012) as citizen monitoring of government via a 'government as platform' model. To a lesser extent participation was linked to citizen (or, more specifically, "digital disrupter") engagement in policy development - in Linders' typology, 'citizen sourcing' the design and execution of services - for example, in the case of the interaction between developers and public officials in the development of the London Datastore (Coleman, 2011).

Whilst at a surface level these ideas seem to resonate with OGD advocates' demands for increased democratic and civic engagement, citizen co-production in UK centre-right political ideology is generally constructed as a form of small-state civic localism; an ideology which enjoyed a brief branding as the 'Big Society' during the first two years (2010-12) of the current government. Two critical examples of this form of co-production in practice include the significant increase in dependency on volunteer-led food banks in the UK as welfare services are cut, and an increase in volunteer-run libraries as state-funded public libraries face closure. Thus at a deeper level there appears to be divergence between citizens'

demands for OGD informed democratic and civic participation and the outcomes of the ‘Big Society’ form of co-production, which may impact uncertainly on trust development into the future.

Consistent with ideas and practices interconnecting the promotion of trust, transparency, participation and OGD, one of the first policy moves of the new government in May 2010 was an announcement by Prime Minister David Cameron that a new Public Sector Transparency Board, comprising of a number of high profile OGD advocates, was being formed. Further, he announced that a number of key transparency related datasets were to be released as open datasets, including the COINS Treasury spending database, and datasets of all government departmental spending over £25,000 and all local government spending over £500. It can be argued that this immediate focus of the new ‘Transparency Agenda’ on opening public sector spending data indicates some overlap between OGD policy and the broader government agenda of fiscal austerity, rather than a more general notion of state transparency, accountability, and citizen engagement. Again, the impact of this tension on long-term trust generation is uncertain; however, as Halonen (2012, p. 93) argues, during the early phases of the OGD initiative at least, the development of a “high level of mutual trust between authorities and [OGD] developers” was evident.

In terms of the strategic importance of information policy (Braman, 2011) to the coalition government’s response to the crises of the UK’s neoliberal state, the OGD transparency policy can be understood as the critical first-move of a new government coming to power during a deepening crisis of consent for the neoliberal form of governance. It should therefore be questioned whether the government’s “transparency” initiative is in actuality motivated by a desire to increase the legitimacy of, and trust in, sections of the political class, at the same time as turning citizens’ critical gaze upon the public services that these same political actors are in the process of subjecting to austerity and marketization policies, as will

be explored in section 5.2. As one civil society advocate observed, some contexts and types of transparency initiative might function to intensify the breakdown in trust between citizens and the broader public sector, leading to consent for neoliberal politicians to further “hollow out the state” (Interview: Peripheral Civil Society).

5.2 Public services data and the Open Public Services Agenda

The new government ... in a way they've kind of hijacked the transparency agenda to kind of....pull apart the public sector, in a way (Interviews: Peripheral Civil Society).

The political economic context that the UK government's transparency initiative is being developed within is one of public spending cuts and a deepening of the neoliberal marketization agenda. The Making Open Data Real consultation, which opened in August 2011, positioned the opening of data and transparency as possibly “the most powerful levers of 21st century public policy” (HM Government, 2011c, p. 8). The consultation framed the potential of opening government data directly within the Coalition government's controversial Open Public Services agenda. The Open Public Services White Paper (HM Government, 2011d), which is now a national government policy agenda, proposes to open the provision of all public services apart from the judiciary and the security services to competition from the private and third sectors. Within the Making Open Data Real consultation paper, OGD was framed heavily as being data about public services: “This paper proposes to cover data relating to provision of ‘public services’ (footnote: in line with the recent Open Public Services White Paper)” (HM Government, 2011c, p. 14). The consultation paper proposed that “all data relating to the provision of public services” would be opened, and this would include data on “access to services, user satisfaction, spending, performance and equality” (HM Government, 2011c, p. 13). Whilst in certain political economic contexts such a move might signal an initiative to deepen the democratic

governance of public services, the present context of these data releases in the UK is one of an increasingly market-orientated model of public service provision in which the public are framed as consumers of services.

As one local government interviewee explained, through opening up data about public services citizens can become better informed in the choices they make as consumers of public services:

Its opening up the choice for people... there's an app...where you've got all the care homes and you can go on there and you can check what was the last rating of this? And, how clean is it? And, what are your chances of getting MRSA in a particular hospital? And that coupled with - again - some of the government legislation on opening up choice to people (Interviews: Local government).

Beyond informing citizen-consumer choice in a marketized public sector, it should also be recognised that much of the data being opened, i.e. spending, quality, satisfaction, and performance, is precisely the kind of data that business intelligence analysts may find valuable when evaluating whether a firm should bid to run a public service. Such activity could therefore contribute to the practice of “cherry-picking” profitable services to take over by private providers that is already common in public service provision. For example, those medical procedures most likely to be carried out by private health providers in the UK tend to be low risk yet high value (see Department of Health, 2012, p. 168-170), meaning that firms are likely to profit, but public providers lose out by not being able to use the income generated from these procedures to subsidize more complex cases. The relationship between OGD and such trends therefore merits further exploration.

In order to push forward the agenda of opening up public service data the Prime Minister announced a significant data release in July 2011. This announcement included the

release of some National Health Service (NHS) data including General Practitioner (family doctor) clinical outcomes, prescriptions, hospital complaints, clinical audit, and staff satisfaction. The release of National Health Service data indicates the strategic importance of OGD to the government's restructuring of health provision in the UK in line with proposals articulated in the Equity and Excellence: Liberating the NHS White Paper (HM Government, 2010) and the controversial Health and Social Care Act 2012 which came into force on 1st April 2013. This government intervention, similar to the more general Open Public Services agenda, aims to develop competitive markets within the UK's health service (which has been publicly funded and provided since the NHS was founded in 1948). The advent of such markets would mean public providers competing with the private and third sector to provide health services in a data informed market (HM Government, 2010). Furthermore, data regarding the prescribing practices *by brand* of NHS General Practitioners (family doctors) has been opened, without public comment that in an effort to curb the influence of pharmaceutical companies' marketing strategies on prescribing practices, some jurisdictions in the United States have tried (and failed, following a 2011 US Supreme Court decision - Sorrell v. IMS Health) to prohibit the "selling, licensing... exchanging [of similar data]...[or, its] use for drug promotion" (Mello & Messing, 2011).

Whilst Dunleavy and Margetts (2010) argue that a new era of Digital Era Governance has superseded practices of New Public Management, others are more sceptical about the relationship between emerging digital agendas such as OGD and NPM (Longo, 2011). It is evident from the analysis above that OGD has a significant enabling role in the government's broader agenda of marketizing public service provision in the UK; a policy that overlaps with the neoliberal New Public Management framework outlined in section 3, and which provides more evidence in support of Braman's argument regarding the strategic importance of information policy in the leveraging of contemporary state power.

5.3 Trading Fund data and the potential for privatization

Beyond the marketization of public services, the privatization of major public assets is also on the government's agenda. In the UK, Trading Funds are a form of public sector commercial organisation, some of which are responsible for critical data collection and information production activities. Whilst the rules around each Trading Fund differ, they all must make a substantial part of their income from commercial activities, rather than depending solely on direct public funding. They include public organizations such as Ordnance Survey (the national mapping authority) and The Met Office (meteorology).

The rules around third party re-use of the basic data that these Trading Funds collect has been an issue on the agenda of some corporate lobbies and government policy makers for a number of years. The 2013 amendments to the European Union's (EU) 2003 Directive on the Re-use of Public Sector Information make a demand on public bodies to allow marginal cost (often zero for digital data) re-use of their data with limited exceptions. At the time of writing, The National Archives (TNA), the public body responsible for regulating the re-use of public sector information in the UK and transposing the EU Directive, were negotiating on behalf of the UK for exclusions on marginal cost charging for Trading Funds (The National Archives, 2013, p. 2). Whilst it is claimed by TNA that this exclusion "keeps within the spirit of the open data and transparency agenda", in fact it avoids a legislative demand to "open" the data that is produced by Trading Funds as part of their "public task", in favour of a commercialised form of data production and distribution for many "core reference" datasets.

At the same time as this exclusion is being negotiated, however, major data releases of "core reference data" from Trading Funds, licenced for re-use under the Open Government Licence, have taken place, which appear to be aimed at unleashing market forces in key sectors of the economy. These include substantial volumes of weather data from the Met

Office; “price paid” data for residential property sales and transactional data that can indicate potential housing market movements from the Land Registry; the CodePoint postcode database and a range of core mapping datasets from Ordnance Survey; and, a bulk download dataset of company names, numbers, registered addresses and further basic information from Companies House (HM Government, 2011b, p. 10-11).

The UK government’s position of negotiating for Trading Funds to be able to charge for the re-use of data they produce has changed little since the original discussions about the EU Directive on the Re-use of Public Sector Information in the early 2000s (Interviews: Civil Service). However, current policy makers also seemingly perceive possible market benefits in strategically opening specific datasets such as weather forecasting and house price data; datasets which undoubtedly have significant value for specific types of commercial actors as will be explored in section 5.4 for the case of weather data.

Beyond avoiding an impact on the revenue streams and governance of the commercial Trading Funds by retaining the charge option in the amended Directive, the reluctance to move towards a fully open model for non-value added datasets produced by Trading Funds also needs to be contextualised within possible moves to privatise a number of these public bodies. In 2011 there was an attempt to draw a number of the high profile Trading Funds into a single Public Data Corporation, a process that aimed to meet the objective of “creating a vehicle that can attract private investment” (HM Government, 2011a, p. 6), and which one senior civil servant interviewee perceived as unexplainable other than as a precursor to privatization. Yet, whilst the Public Data Corporation plans were abandoned in 2012, the Guardian newspaper reported in April 2013 that “Ministers believe several [public] assets are ripe for sale now stock markets have returned to their pre-crash peaks, and investors are ready to make long-term commitments”. Of those assets being considered for privatization, it

reports, are Companies House, the Land Registry, the Met Office and Ordnance Survey (Inman & Harvey, 2013).

It is clear that applying Open Licences to all non-value added Trading Fund datasets would make these public bodies significantly less valuable assets during any privatization. As in the case of the recent privatization of Royal Mail, the inclusion of the Postcode Address File database in the sell-off has been estimated to be worth between £500-900 million (Hope, 2013). The government's seeming desire to privatise key Trading Funds, whilst also opening up datasets of value to powerful sectors of the UK economy, provides further evidence of a broadly neoliberal agenda shaping policy decisions in the UK. In relation to the strategic importance of information policy, key decisions appear to be being taken by policy makers to balance the opening of Trading Fund data to boost key economic sectors, such as finance and housing, that the UK's neoliberal growth model is dependent upon, whilst not damaging the potential short term financial value for the Treasury that could be generated through the privatization of valuable information assets.

5.4 Financial market expansion: weather data and the exploitation of risk

Since it is the intention of the UK government not to have a general policy of opening all Trading Fund data, it is therefore important to consider the strategic importance of opening specific datasets, and the benefits for various political and economic actors. In order to illustrate some of the potential issues at play in these decisions, the case of opening weather data produced by the Met Office will be used.

The 2011 Autumn Statement by the Chancellor of the Exchequer, George Osborne, announced that the Met Office would be releasing “the largest volume of high quality weather data and information made available by a national meteorological organisation anywhere in the world” under an Open Government Licence (HM Government, 2011b). The

release of such data will be exploitable by a range of interests including commercial weather forecasting services. More significant in relation to the continuation of the neoliberal state, however, is the potential for re-use of this weather data within the financial services industry, in particular by firms engaged in the weather derivatives markets.

Weather derivatives were developed within the US energy industry by Enron, Koch Industries and Aquila in the mid-1990s when Enron found insurance companies unwilling to insure the company against non-extreme weather events (WRMA, n.d. (a); Dischel, 2002). Whilst weather derivative contracts are traded across all forms of weather event, by far the most popular contracts are based on temperature and the divergence of the average daily temperature from 18⁰C (WRMA, n.d. (b)).

The weather derivatives market saw massive growth in the mid-2000s, experiencing both the hedge fund boom of 2005-6, when the total notional value of trades reached a high of \$45 billion/annum, and the pre-crash boom of 2007-8 (\$32 billion/annum) (PwC, 2006; WRMA, 2008; Randalls, 2010). As with other forms of financial product, however, the vulnerability of the weather derivatives market was highlighted when the market crashed during 2008-9 (\$15 billion/annum) and 2009-10 (\$10 billion/annum), with only slow signs of growth by 2011 (\$12 billion/annum) (McCallion, 2011; WRMA, 2009; WRMA, 2011). However, the Weather Risk Management Association is hopeful for weather derivatives, pointing to continuing growth outside the US markets throughout the downturn, growing interest in non-temperature-related weather derivatives, and increasing interest from outside the energy industry (WRMA, 2009; WRMA, 2011).

Until recently, UK based traders had to purchase their weather data from the Met Office in order to conduct forecast analyses and price weather derivatives contracts. Weiss (2002) argues that by 2002 the limited access to weather data in the EU had resulted in a

weather risk management industry 13.5 times smaller than the then embryonic US industry which had built up \$9.7 billion dollars of contract value over 5 years, based on data freely available from US public bodies. The UK financial services sector has long complained that the weather risk and derivatives markets in the UK have been restrained by the lack of freely available weather data, and accordingly have lobbied for a data access and re-use policy similar to the USA (BERR, 2008; Interviews: Civil Service). The decision of the UK government to ‘open’ large volumes of meteorological data is therefore significant, and is further suggestive of OGD policy being used to enable a broader government strategy, in this case as a means of deepening the neoliberal financialization agenda.

Whilst the claim is often made that weather derivatives and similar products balance out the financial impact of weather instabilities on affected businesses, thus smoothing adaptation to climate change, serious questions do arise about who actually benefits from these financial products. During a time of instability in global weather systems, there is a lot of potential profit to be generated from such financial products. This developing data-driven weather derivatives market is one that exploits common threats in order to generate private wealth, and could reduce the incentive for those profiting in these markets to engage in action to mitigate climate change.

The ‘opening’ of weather data to fuel the UK weather derivatives market therefore points to the continuing, even deepening, political and economic power of the UK’s financial sector post-crash, and the importance of information policy in strengthening the role of the sector through promoting financialization strategies as a response to common threats such as climate change. Indeed, in the Open Data White Paper, the UK government stressed that its interest in OGD was also about stimulating growth in the broader risk industry including in the areas of “homeland security... disaster management, energy and food security” (HM Government, 2011c, p. 53).

6. Information policy and the neoliberal state

The re-use of public sector information has, until recently, been a relatively obscure policy domain. Whilst the growing interest in Open Government Data has drawn more attention to the topic, beyond the surface level it remains clouded by technicalities and the interrelations with other policy areas are not fully explored in the literature, particularly from critical perspectives. As Braman (2006, p. 7) argues, it can be illuminating to “look where the light don’t shine” in order to get a better appreciation for the influence of information policy on broader policy and societal developments. This article, therefore, aimed to begin to analyse how one form of information policy (OGD) has played an important strategic role in the UK coalition government’s formulation of a more general public policy framework.

The opening up of government data can be interpreted as an amelioration of the trend towards proprietization and commercialization of information during the neoliberal era, and a shift towards a more co-productive relationship between citizens and the state. However, the broader analysis presented here suggests that the Open Government Data agenda is also being used strategically, and often insidiously, by the UK government to fuel a range of broader and more controversial policies, which are aimed at the continuation of the neoliberal form of state through the current crisis. In particular, the article examined the relationship between Open Government Data policy and the market-orientated neoliberal objectives of the marketization of public services and potential privatization of public assets, the leveraging of financial markets and pharmaceutical industries through selective release of particular datasets, and the embedding of OGD into a broader agenda aimed at (re)building trust in political elites.

These findings therefore evidence some accuracy in Braman’s (2006) observation that “governments deliberately, explicitly, and consistently control information creation,

processing, flows, and use to exercise power” (p. 1) by “manipulating the informational bases of instrumental, structural and symbolic power” (p. 25). However, whether this and similar observations indicate the development of an “informational state” is more contentious, since such a framework diverts analytical attention away from the forms of production and social relations that these information policy processes aim to reproduce or generate. In other words, the notion of an “informational state” might usefully indicate important trends in the process of governing by states, but it provides no indication of the ends to which these decisions are directed. Whilst such a focus is not necessarily problematic in itself, to define the state and frame the analysis only in relation to these political processes might limit a deeper understanding of the role of information policy in broader political *economic* developments. In the case of the UK’s OGD initiative, for example, the overall ends of the coalition government can be understood as the continuation of a neoliberal capitalist form of state through a period of crisis. Braman’s “informational state” framework, with its emphasis on political power, does not introduce this layer to the analysis, however, it is a crucial aspect of attempting to understand better the strategic role that information policy is playing in the UK government’s response to the crisis of the neoliberal state. Without this layer of analysis it is difficult to make the connections between marketization, privatization, financial market activity, corporate welfare, political governance and trust, *and* developments in information policy around the re-use of public sector data as advanced by the UK government.

In light of these findings and arguments, a number of recommendations for further research are made. There has so far been little critical research into the OGD agenda; further such research on these initiatives in both national and international contexts would be beneficial. Specific areas for development include the intersection of OGD policies with a range of political and economic agendas, how opened government data is being used in a range of industry contexts (some of which are suggested in the above discussion) and under

what regulatory frameworks, the decision making processes around the opening (or, not) of specific datasets deemed to be of political, economic and social value, and comparative research on the broader strategic use of OGD policies in different political economic contexts.

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