



Open Data

Six Stories About Impact in the UK

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Summary

2013 saw the UK Government concurrently host the **Open Government Partnership (OGP)** summit and hold the presidency of the G8. Prime Minister David Cameron used this joint platform to launch a positive commitment to **beneficial ownership transparency** (identifying the real owners of corporate entities—a key tool in eliminating the ability of anonymous shell companies to mask financial corruption) that has the potential to drive global norms on the issue. Behind the scenes, a coalition of civil society groups focussed on corruption, fraud, overseas development, and tax justice were driving the agenda, aided by open corporate data pioneer OpenCorporates.

This case study shows how OpenCorporates was able to leverage its expertise in order to play a critical, if minor, role in the success of the campaign for **beneficial ownership transparency**. It also discusses two issues in open data impact as a driver for social change: the continuing role of traditional advocacy and the limits of so-called **exhaust PSI**.



► Key takeaways

- **Moving the needle on complex issues like corruption and governance reform requires much more than opening government data: The success of just this one chapter in the campaign for beneficial ownership transparency relied upon a concurrence of factors including political mood, external events, and focussed, concerted efforts from traditional advocacy organisations.**
- **OpenCorporates' expertise, gained from years of handling government data (open and not open) about companies, had a critical, if minor, role to play in this success. OpenCorporates could not have gained this success on its own.**
- **The role of the open data community should not just be to use the government data it is given, but to demand the government data it needs.**

► Background

In 2010 the World Bank published a report showing that of 213 grand corruption investigations across 80 countries, 150 involved corporate vehicles that shielded the true beneficiaries of financial transactions. In these 150 cases, the total proceeds of corruption amounted to approximately \$56.4 billion. The report, *The Puppet Masters: How the corrupt use legal structures to hide stolen assets and what to do about it*, opens with the example of a tender put out by the Kenyan government to replace its passport system:

Despite receiving a bid for €6 million from a French firm, the Kenyan government signed a contract for five times that amount (€31.89 million) with Anglo-Leasing and Finance Ltd, an unknown UK shell company, whose registered address was a post office box in Liverpool. The Kenyan government's decision was taken despite the fact that Anglo-Leasing proposed to subcontract the actual work to the French company. Material leaked to the press by whistle-blowers suggested that corrupt



Total proceeds of corruption across 150 grand investigations involving corporate vehicles that shielded the true beneficiaries of financial transaction: **\$56.4 billion**

Jurisdictions covered by OpenCorporates' database of company information: **105**

Companies listed in the OpenCorporates database: **85 million**

Number of Goldman Sachs subsidiaries registered in the Cayman Islands: **739**

*senior politicians planned to pocket the excess funds from the deal. Attempts to investigate these allegations were frustrated, however, when it proved impossible to find out who really controlled Anglo-Leasing.*¹¹⁹

One of the report's key recommendations was that information available at company registries should be improved and made more easily available. The recommendation echoed that made by a similar report published by the OECD in 2001, *Behind the Corporate Veil: Using Corporate Entities for Illicit Purposes*, which called on governments "to

ensure they are able to obtain information on the beneficial ownership and control of corporate entities"¹²⁰.

OpenCorporates is the largest open database of companies in the world. Founded by "open data veterans"¹²¹ Chris Taggart and Rob McKinnon, it launched at the end of 2010 covering 3.8 million UK past and present companies. As Chris Taggart told the **Open Data Institute** in 2012:

*We take messy data from government websites, company registers, official filings and data released under the Freedom of Information Act, clean it up and using clever code make it available to people.*¹²²

The launch of OpenCorporates predates the decision by **Companies House** to release all the data it holds as open data. But **Companies House** has made more basic datasets available for several years, and it was this data, combined with other government data sources (for example government spending data and **Health and Safety notices**) that fuelled OpenCorporates in the beginning. Taking the same mixed input approach, OpenCorporates has now expanded its coverage to over 105 jurisdictions and 85 million companies today.

► The path to impact

In 2012, Global Witness, a civil society group that investigates and exposes the links between natural resources, corruption, and conflict, began dedicating more resources to moving the needle on the beneficial ownership issue. Though their original advocacy target was EU Money-Laundering Regulations, which were about to be updated, Global Witness soon became aware that political forces in the UK were aligning to make the UK's hosting of the G8 summit at **Lough Erne** a favourable venue for pushing reform. If they could get the G8 leaders to commit to **beneficial ownership transparency**, they could begin establishing a global norm.

The UK government was under pressure to respond to several financial scandals, including angry press coverage of the tax avoidance in the UK of major US firms Amazon, Starbucks, and Google, and the 2012 US Senate investigations into British bank HSBC's involvement in money-laundering for Mexican drug cartels. Speaking at the World Economic Forum in Davos in January 2013, David Cameron called on the G8 to get its own house in order on corporate transparency, citing the "long and tragic history of some African countries being stripped of their minerals behind a veil of secrecy", and outlining a three-pronged agenda for his presidency of the G8: Trade, Tax, and Transparency.¹²³

Robert Palmer, head of Global Witness' banks and corruption campaign, calls the speech "a real moment in the campaign, where ... the direction of travel of the UK agenda [became clear]"¹²⁴. In it, Cameron cites the work of the economist Paul Collier, Professor of Economics and Public Policy at the University of Oxford, and sources at the **Cabinet Office** confirm

that Collier's work had a big influence on the Prime Minister. Also influencing the Prime Minister according to these sources was the fact that G8 leaders "were unlikely to turn up to the meeting with their cheque books open"¹²⁵. A coup like the one accomplished by Tony Blair at the Gleneagles summit in 2005, where G8 leaders committed significant funds in aid to Africa, was unlikely. A "new way of thinking"¹²⁶ was therefore needed.

Also looking to repeat the successes of the UK's last G8 presidency were a group of civil society organisations involved in the original Make Poverty History campaign that targeted Gleneagles. The Enough Food for Everyone IF campaign was a coalition of major development NGOs, including Save the Children, Oxfam, Christian Aid, and CAFOD. A subset of this group, chaired by David McNair (then at Save the Children and now at the ONE Campaign), and including Robert Palmer (though Global Witness were never formally part of the IF campaign), began holding weekly calls on the beneficial ownership issue in the lead-up to the G8. Robert Palmer remembers:

It was one of the most impressive group of campaigners I have ever been around The G8 campaign was a real collaborative effort between groups like Global Witness who could bring our policy knowledge ... and groups like Christian Aid, and the ONE Campaign, who had political access and campaigners and supporters they could mobilise.¹²⁷

At **Lough Erne** in June 2013, the G8 leaders committed to a core set of principles "to prevent the misuse of companies and legal arrangements" that included measures on beneficial ownership¹²⁸, and David Cameron committed the UK to a central registry of company beneficial ownership information^W. He said he would consult on whether to make the registry public. Reporting on the results of the G8 summit to **Parliament**, Cameron stated that there were "strong arguments for public registers of beneficial ownership all over the world"¹²⁹. Ensuring that the registry was open to all became the new focus of the civil society campaign.

► The data

Chris Taggart, the CEO of OpenCorporates, was in touch with the NGOs working on **beneficial ownership transparency**, but he wasn't on the weekly calls that led up to the G8. Thanks to a small grant from the Alfred P. Sloan Foundation, OpenCorporates had been delving into the corporate structure issue separately to Global Witness and the NGOs involved in the IF campaign.

OpenCorporates was investigating a generalised approach to how complex corporate structures could be modelled and constructed using diverse official and regulatory data, and represented within the OpenCorporates dataset. The project kicked off with three separate datasets: shareholder data from New Zealand's company registry, to which OpenCorporates already had access through an **API key**;

and two datasets from US regulators^X. At the heart of the project was the idea that in the age of the internet, "you can have corporate structure set ups appear that can be as complex as the computers that can cope with them"¹³⁰, and that society could only combat the proliferation of complex corporate structures through better data.

To make this case, OpenCorporates worked with data visualisation studio Kiln on a series of visualisations to underscore the complexity of the structures behind a handful of the world's more recognisable global companies, mainly in the financial sector. One of the visualisations—representing Goldman Sachs—is shown in Figure 6.

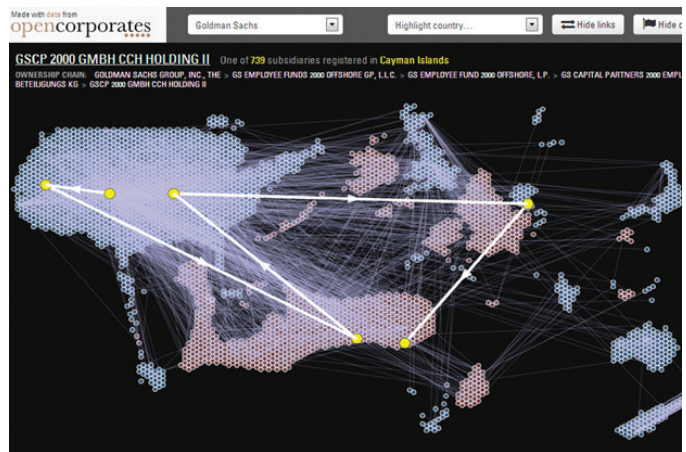


Figure 6: Detail from OpenCorporates and Kiln's visualisation of complex corporate structures. Copyright OpenCorporates. Reproduced with permission.

Displaying the country of incorporation in a map-based way required "some significantly difficult maths," says Taggart. But it lends the message a visual power: The landmass shown below the United States in Figure 6 is the Cayman Islands, an offshore tax haven in which Goldman Sachs has 739 registered subsidiaries^Y.

► Outcome

The OpenCorporates briefing was published after the G8 announcement, in July 2013. Robert Palmer remembers it well:

I think it was one of the things that was really powerful about what Chris could do. He had company data, he had the raw data that he could use to demonstrate the ridiculousness of some of these sorts of situations.¹³¹

The visualisation was reported extensively but almost exclusively by the technology press^Z. Yet although it may not have enjoyed mainstream impact in and of itself, the work OpenCorporates had put in behind the scenes had a key role to

X For details of the datasets used, see (Taggart 2013). Chris Taggart gives more detail of these datasets and the work that went into obtaining them: "[They were] the [US Securities and Exchange Commission's] EDGAR website (specifically the Exhibit 21 subsidiary filings) and the Federal Reserve's Bank database of Bank Holding Company corporate structures. Both were problematic: in the case of the Exhibit 21 filings, these are more-or-less unstructured filings, of a wide variety of forms and formats; in the Fed data, it meant reengineering data from complex PDFs of hundreds of pages long." (personal communication)

Y For a discussion of the design element of the OpenCorporates visualization, see (Kiln n.d.)

Z Articles were published in GigaOm (Meyer 2013), Wired (Solon 2013), Tech President (McKenzie 2013), The Verge (Kastrenakes 2013), Computer Weekly (Computer Weekly 2013), and Gizmodo (Campbell-Dollaghan 2013).

W The author notes that the G8 Open Data Charter, which commits G8 governments to an "open by default" policy, was also launched at Lough Erne. The campaign for beneficial ownership transparency is treated as separate from the campaign for the open data charter for the purposes of this report.

OpenCorporates: Open data as one small part of the picture

play in the period between the G8 announcement and the UK's hosting of the **OGP** Summit in October 2013.

"If it was just OpenCorporates, of course it wouldn't have happened. But the example they were showing and the technical understanding that they had as a result of that, was really critical."

David McNair, Save The Children/ONE

Devising the generalised data structure for corporate relationships as part of the Sloan work was "one of the hardest things I've ever done in my life," says Taggart. But a by-product of this sort of handling of open government data is the ability to speak the language of internal government bureaucracies. This turned out to be a key advocacy tool. The labour put into establishing, for example, how to represent the multiplicity

of different structures, how to define what a subsidiary was in the face of different national interpretations, how to represent changes in a structure over time, paid off once OpenCorporates became more deeply involved in the campaign for a public beneficial ownership registry in the UK post-G8^{AA}:

*Going down to that sort of level is really important It's not just the fact that there should be a public beneficial ownership register, nor even that there should be a public beneficial ownership register that is open data. How is the data stored? What's being done on it? How is that being recorded? What level of granularity? What should we do here? What should we do there? Understanding the problem is a nontrivial part of the puzzle here.*¹³²

David McNair agrees:

*The added value that I saw OpenCorporates bring was that very, very detailed knowledge of how this database would work If it was just OpenCorporates of course it wouldn't have happened. But the example they were showing in terms of demonstrating that it's possible to build a database, and the technical understanding that they had as a result of that, was really critical for making the standard robust.*¹³³

Robert Palmer echoes this sentiment, calling what OpenCorporates did "data-based advocacy". He recalls a moment when the Department for Business were consulting on whether directors' and shareholders' full dates of birth should be published on the register: OpenCorporates were able to demonstrate using real data that were dates of birth to be partially redacted, investigators would be unable to identify individual directors and shareholders robustly in cases numbering in the tens of thousands.

Palmer also argues that OpenCorporates was instrumental in pushing NGOs to demand the registry be made publicly available:

*One of the biggest impacts that OpenCorporates had on the campaign was to insist that the new beneficial ownership information be provided as open data and this was a key part of the eventual NGO position and the final government announcement.*¹³⁴

► Impact

In October 2013, David Cameron announced at the **OGP** summit that the UK's registry of beneficial owners would indeed be public. It was a major success for the campaign.

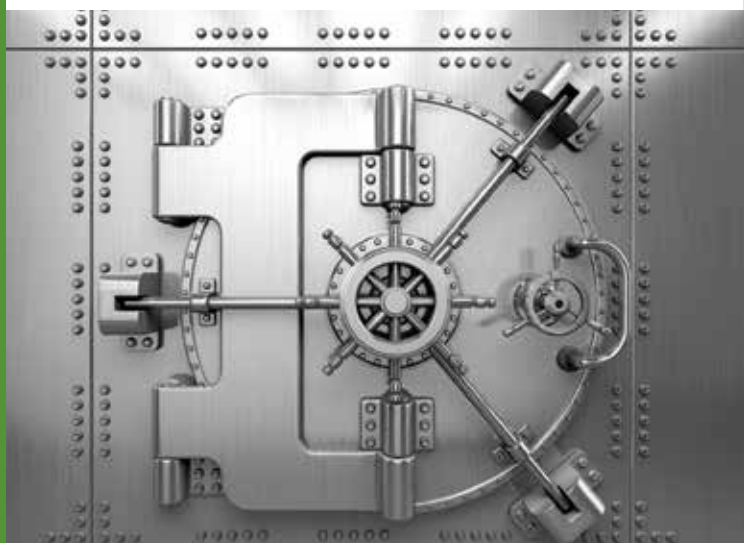
Commitments to **beneficial ownership transparency** are now spreading as a global norm, just as Robert Palmer and his fellow campaigners had hoped. But the campaign is by no means won. Indeed, when the G20 announced its commitment to **beneficial ownership transparency** in November 2014, language around making national registries public was very much missing¹³⁵, to the disappointment of transparency NGOs.

In the UK, Chris Taggart will be watching for the impact of the new rules:

*What's going to be interesting is the number of companies that dissolve and remove themselves from the register before the beneficial ownership requirements come in.*¹³⁶

► Discussion

The expertise OpenCorporates has gained across years of handling government data about companies, and especially the work it did on complex corporate structures, played a critical, if minor, role in achieving the overall impact discussed in this study: the Prime Minister's commitment to a public register of beneficial owners in the UK.



^{AA} It's important to note that OpenCorporates was also involved – as were many others in the open data community—in more general campaigning around the UK's OGP Action Plan during this period. (Martin Tisné, Director of Policy at Omidyar Network, private communication)



The success of this chapter in the campaign for **beneficial ownership transparency** relied upon a rare concurrence of factors including political mood, external events, and focussed, concerted efforts from traditional advocacy organisations. The combination of the UK hosting the G8 as well as chairing the **Open Government Partnership** was also a lucky break. Open data expertise had some role to play in this success, but it could not have gained it in isolation. This last point is perhaps the point of this study: Moving the needle on complex issues like corruption and governance reform requires much more than opening government data. Chris Taggart says he has “so much respect for the other actors involved”, and the lobbying work they did:

That stuff's really hard. I mean, the stuff I do, the data, the coding stuff, that's way easier than that sort of stuff.

Could the G8/OGP summit campaign have succeeded without OpenCorporates? The G20 commitment contained no language on beneficial ownership registers being public, and it's tempting to speculate that this could be because no equivalent organisation to OpenCorporates was involved in the campaign running up to the G20. However, it's likely that individual and entrenched political cultures in the G20 group played a larger role: Insiders say China was the major block in making beneficial ownership registries public.

The story of OpenCorporates' role in the campaign for **beneficial ownership transparency** has been picked up by Jonathan Gray and Tim Davies in their arguments for **participatory data infrastructures**¹³⁷:

*We think the case of campaigning for a public registry of beneficial ownership in the UK is an interesting example of where calling for the disclosure of existing datasets was not enough—as the information needed was not routinely collected by the public sector. Civil society organisations had to undertake a more creative, sustained and holistic engagement with shaping and influencing the development of data infrastructures as socio-technical systems.*¹³⁸

Their argument, that most government open data is an administrative by-product and may not therefore capture aspects of its subject needed by data re-users such as advocates, is radical and relevant.

*We contend that a politics of public information fit for the digital age should go beyond the question of what datasets are disclosed when and to whom, and should additionally ask what information should be collected and generated in the first place.*¹³⁹

► Calls to action

FOR OPEN DATA ADVOCATES

- The next phase of open data advocacy involves influencing the data the government collects.

The role of the open data community should not just be to use the government data it is given, but to demand the government data it needs.

- Traditional advocacy organisations, with their political experience, strategic thinking and networks of influence, make powerful allies in campaigns to open up government data.

FOR OPEN DATA PRACTITIONERS

- A by-product of daily handling of open government data is the ability to speak the language of internal government bureaucracies. That ability can be a powerful tool in advocacy.

FOR FUNDERS

- Traditional advocacy efforts can be complemented and enhanced by open data approaches. This might mean a new presentation of the facts based on open data sources, or simply the inclusion in civil society coalitions of open data practitioners able to speak the language of internal government bureaucracies thanks to their daily handling of government data.

“[Political lobbying] is really hard. I mean, the stuff I do, the data, the coding stuff, that's way easier than that sort of stuff.”

Chris Taggart, OpenCorporates

- 1 (Hogge 2011)
- 2 (Gray and Davies, Fighting Phantom Firms in the UK: From Opening Up Datasets to Reshaping Data Infrastructures? 2015)
- 3 (Prime Minister's Office 2010)
- 4 (Hogge 2011)
- 5 (Atz, Heath and Fawcett 2015)
- 6 (Robinson, et al. 2009)
- 7 (World Wide Web Foundation 2015)
- 8 (Open Knowledge Foundation n.d.)
- 9 (Royal Mail n.d.) "Postcode Address File"
- 10 (Hope 2013)
- 11 (BBC News 2014)
- 12 (Jee 2015)
- 13 (Caplan, et al. 2014)
- 14 (Craveiro, et al. 2014) as cited in (Davies, Open Data in Developing Countries: Emerging Insights from Phase I 2014)
- 15 (Caplan, et al. 2014)
- 16 (Thwaites 2012)
- 17 (Williams 2015)
- 18 (McGee and Gaventia 2010)
- 19 (Keserü 2015)
- 20 Rebecca Rumbul, personal communication
- 21 (Atz, Heath and Fawcett 2015)
- 22 (Deloitte 2013)
- 23 (Lateral Economics 2014)
- 24 (Lateral Economics 2014)
- 25 (BBC News 2015)
- 26 (Transport for London n.d.) "What we do"
- 27 (Transport for London n.d.) "What we do"
- 28 Interview: Vernon Everitt
- 29 (Transport for London n.d., Transport for London 2015) "How we are funded"
- 30 (Topham 2014)
- 31 (Reed 2015).
- 32 (Transport for London n.d.) "Transport Data Service terms and conditions"
- 33 Interview, Phil Young
- 34 (Siddle 2014)
- 35 (Mirani 2014)
- 36 Interview, Phil Young
- 37 Interview, Vernon Everitt
- 38 Private correspondence, Phil Young and Vernon Everitt
- 39 Interview, Vernon Everitt
- 40 Interview, Paul Clarke
- 41 Interview, Emer Coleman
- 42 Interview Phil Young
- 43 Interview, Emer Coleman
- 44 (Everitt 2014)
- 45 (Reed 2015)
- 46 (Reed 2015)
- 47 (Deloitte 2013)
- 48 Interview, Vernon Everitt
- 49 (Transport for London 2015)
- 50 (Baxevis 2015)
- 51 Interview, Vernon Everitt
- 52 Interview, Vernon Everitt
- 53 Interview, Phil Young
- 54 (Deloitte 2013)
- 55 (Reed 2015)
- 56 Interview, Phil Young
- 57 Interview, Vernon Everitt
- 58 Interview, Vernon Everitt
- 59 Interview, Paul Clarke
- 60 Interview, Phil Young
- 61 Interview, Vernon Everitt
- 62 Interview, Vernon Everitt
- 63 (Land Registry 2006)
- 64 (Land Registry 2006)
- 65 (KPMG 2011)
- 66 (Hogge 2011)
- 67 (Arthur, Met Office and Ordnance Survey to be part of 'public data corporation' 2010)
- 68 (Department for Business, Innovation & Skills and Cabinet Office 2011)
- 69 (Cabinet Office 2011)
- 70 (Department for Business, Innovation & Skills and Cabinet Office 2011)
- 71 (Syal, Land Registry privatisation plans abandoned by ministers 2014)
- 72 (Quinn 2015)
- 73 (We Own It n.d.)
- 74 (Public Data Group n.d.)
- 75 Interview, Lynne Nicholson
- 76 (Land Registry 2012)
- 77 (Land Registry 2013)
- 78 <http://archive.is/pFEzX#selection-1665.0-1665.251>
- 79 (Private Eye 2015)
- 80 (Land Registry 2014)
- 81 (legislation.gov.uk n.d.) "Copyright, Designs and Patents Act 1988"
- 82 (Department for Business, Innovation & Skills and Cabinet Office 2011)(22 of the 116 respondent were identified by the government as "market participants")
- 83 Interview, Lynne Nicholson
- 84 (Department for Communities and Local Government 2010) "Property sales based on Land Registry data"
- 85 (Department for Communities and Local Government 2010) "Median house price"
- 86 (HM Treasury 2012)
- 87 Interview, Lynne Nicholson
- 88 Interview, Lynne Nicholson
- 89 (Cabinet Office 2011)
- 90 Interview, Lynne Nicholson
- 91 (Land Registry 2013)
- 92 (Mapping London 2015)
- 93 (Ramsay 2014)
- 94 (Timita 2014)
- 95 (Ramsay 2014)
- 96 Interview, Adrian Black
- 97 Interview, Adrian Black
- 98 Interview, Adrian Black
- 99 Interview, Henry Pryor
- 100 (Assetti 2015)
- 101 (Fowler 2015)
- 102 Interview, Peter Thum-Bonanno
- 103 Interview, Peter Thum Bonanno
- 104 <http://developer.zoopa.com/>
- 105 Interview, Vasanth Subrahmanian
- 106 Interview, Vasanth Subrahmanian
- 107 Interview, Henry Pryor
- 108 (HMRC 2015)
- 109 (OECD n.d.)
- 110 (HMRC 2015)
- 111 Interview, Lynne Nicholson
- 112 (Land Registry 2013)
- 113 Interview, Lynne Nicholson
- 114 Interview, Peter Thum-Bonanno
- 115 Interview, Claudia Arney
- 116 (Aston 2015)
- 117 (Hope 2013)
- 118 (Arthur, MPs and open-data advocates slam postcode selloff 2014)
- 119 (van de Does de Willebois, et al. 2011)
- 120 (OECD 2001)
- 121 (OpenCorporates 2010)
- 122 (ODI n.d.) "Case study: OpenCorporates"
- 123 (Cabinet Office 2013)
- 124 Interview, Robert Palmer
- 125 Confidential source, Cabinet Office
- 126 Confidential source, Cabinet Office
- 127 Interview, Robert Palmer
- 128 (G8 2013)
- 129 (Cameron 2013) (my emphasis)
- 130 Interview, Chris Taggart
- 131 Interview, Robert Palmer
- 132 Interview, Chris Taggart
- 133 Interview, David McNair
- 134 Private communication, Robert Palmer
- 135 (Transparency International 2014)
- 136 Interview, Chris Taggart
- 137 (Gray and Davies, Fighting Phantom Firms in the UK: From Opening Up Datasets to Reshaping Data Infrastructures? 2015)
- 138 (Gray and Davies, Fighting Phantom Firms in the UK: From Opening Up Datasets to Reshaping Data Infrastructures? 2015)
- 139 (Gray and Davies, Fighting Phantom Firms in the UK: From Opening Up Datasets to Reshaping Data Infrastructures? 2015)
- 140 (Prime Minister's Office 2010)
- 141 (digitalhealth.net 2007)
- 142 (Open Public Services Network 2013)
- 143 (Open Public Services Network 2013)
- 144 (Open Public Services Network 2015)
- 145 (Department for Education 2013)
- 146 (Department for Education 2013)
- 147 (Open Public Services Network 2013)
- 148 Interview, Charlotte Alldritt
- 149 (Hansen, Joshi and Dex 2010)
- 150 Interview, Charlotte Alldritt
- 151 (Adams 2013)
- 152 (Open Public Services Network 2015)
- 153 (Cabinet Office 2013)
- 154 (World Bank n.d.)
- 155 (Coughlan 2015)
- 156 (Times Educational Supplement 2015)
- 157 (Nottingham Post 2015)
- 158 (Bradford Telegraph and Argus 2015)
- 159 (Sampson 2015)
- 160 (Harding 2015)
- 161 (Skidmore 2015)
- 162 (Gray, Bounegru and Chambers, The Data Journalism Handbook: How Journalists Can Use Data to Improve the News 2012)
- 163 Interview, Roger Taylor
- 164 (Prime Minister's Office 2010)
- 165 (Thwaites 2012)
- 166 (Wheeler 2012)
- 167 (Freeguard, Munro and Andrews 2015)
- 168 Interview, Roger Taylor
- 169 Interview, Roger Taylor
- 170 Interview, Roger Taylor
- 171 Interview, Roger Taylor
- 172 Interview, Roger Taylor
- 173 Interview, Roger Taylor
- 174 (TheyWorkForYou.com n.d.) "About TheyWorkForYou"
- 175 (mySociety n.d.)
- 176 (Hogge 2011)
- 177 Email-based interview, Matthew Somerville
- 178 Email-based interview, Matthew Somerville
- 179 (Nixon 2014)
- 180 (Hadi 2014)
- 181 Interview, Tom Steinberg
- 182 Email interview, Matthew Somerville
- 183 (BBC News 2013)
- 184 (Escher 2011)
- 185 Interview, Tom Steinberg
- 186 (Hurst 2006)
- 187 (Prentice 2008)
- 188 (The Economist 2012)
- 189 (TheyWorkForYou.com n.d.) "Frequently Asked Questions"
- 190 Private communication, Myf Nixon, mySociety marketing and communications manager
- 191 (Escher 2011)
- 192 Interview, Matthew Somerville
- 193 Email interview, Matthew Somerville
- 194 (Prime Minister's Office 2010)
- 195 (Coeliac UK n.d.)
- 196 (Wikipedia n.d.)
- 197 (Howdle 2010)
- 198 (Brandbank 2015); (Mills & Reeve 2015)
- 199 (Coeliac UK 2014)
- 200 Interview, Beau Archer
- 201 Interview, Beau Archer
- 202 (Brandbank n.d.) "FAQs" (See question "Why do I have to pay an annual fee?")
- 203 Interview, Beau Archer
- 204 (Shopper Goggles n.d.)
- 205 Interview, Beau Archer
- 206 (Coeliac UK n.d.) "History of Coeliac UK"
- 207 Interview, Beau Archer
- 208 (TalkTalk Digital Heroes n.d.)
- 209 Private communication, Kathryn Miller
- 210 (Coeliac UK 2014)(see comment stream underneath post)
- 211 (Hall, Rubin and Charnock 2013)
- 212 (Hall, Rubin and Charnock 2013)
- 213 Private communication, Kathryn Miller
- 214 Interview, Kathryn Miller
- 215 (Booth 2014)
- 216 (ODI n.d.) "How to make a business case for open data"
- 217 (Land Registry 2014)
- 218 (Gray and Davies, Fighting Phantom Firms in the UK: From Opening Up Datasets to Reshaping Data Infrastructures? 2015)
- 219 (Deloitte 2013)
- 220 (Open Public Services Network 2013)
- 221 (Triggle 2014)
- 222 (Prime Minister's Office 2010)
- 223 Interview, Chris Taggart
- 224 Interview, Vernon Everitt
- 225 (Wu 2010)
- 226 (Hogge 2011)
- 227 Interview, Tom Steinberg
- 228 Interview, Chris Taggart