

Technologies of Civic Participation

Civic technologies and They Work for You

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Abstract

An investigation of civic technologies focused upon They Work for You, and including descriptions of civic hacking and open data, along with taxonomies of civil tech.

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Introduction

A civic technology is one that aids civic society, where civic society is considered to mediate between commerce, government and the individual. There is a broad range of civic technology (or civic tech) projects, both commercial and charitable, from XXX to YYY. From the perspective of the UK, arguably one of the most well known (and, indeed, one of the most established) civic tech projects is They Work for You, which provides automated, accessible data about government. Many civic tech developments, including They Work for You, encompass elements of hacking or open data culture. Consequently, an overview of those cultures will be provided before They Work for You is examined in greater detail.

Civic hacking

It might be suggested that the stereotype of (not for profit) hackers is of an individual (usually a man) or a group (usually men) of programmers extracting information from (and, thereby, breaking into) a government or corporate computer system. In this gloss, hacking is akin to a high tech heist movie. Another way of understanding hacking might be to consider what it would appear to involve, namely , to hack iteratively at a large problem. And it is this conception of hacking that when applied to social problems gives rise to the term civic hacker. Thus the pre-existing outsider status of hackers is combined with commercial software engineering practices to address civil problems and to do so, for the most part, in a not for profit manner.

Open data

It is suggested that there are two key tendencies within the open data movement. On the one hand, individual organizations within it aim to ensure the availability of open and common data standards, as exemplified by the work of XXX and YYYY. On the other hand, and with particular regard to politics, the movement might be considered as aiming to empower civil society with the ability to hold governmental administrations to account. An obvious example of the latter tendency is Wikileaks.

From an American perspective one of the primary antecedents of the current open data movement is the Freedom of Information Act, which was signed into law by LBJ in 1963. Though more limited in scope than the initial draft legislation proposed by Senator Cross, and though (at least initially) only directly affecting the federal government, the act nevertheless represented a significant

addition to the rights of ordinary American citizens. Consequently, the FOIA might be considered to represent an enlargement of the potential of civic society to hold an administration to account, and to that end between xxx and yyy xxxx citizens made FAOI requests.

From a sociological perspective, moreover, one of the reasons for such requests might relate to Giddens conception of trust in modern societies. That is, he suggests that the technological advances which (in part) give rise to such societies nevertheless ensure that many aspects of daily life can not be fully understood and must instead be taken on trust. The corollary of such trust based interactions - or, indeed, relationships - might well be a desire to uncover (as far as possible) the truth underlying the trust.

That being said, and as noted by XXXX, negative perceptions of bureaucracy and big government would appear to have remained stable for around 60 years.

In addition, YYYY noted that some aspects of open data culture may represent the bureaucratisation of civil society and / or the monetisation of data in relation to civil society.

They Work for You

Overview

They Work for You is a civic technology that was founded by Tom Steinberg in XXXX. It provides information about political representatives, such as MPs and MSP) across all four legislative assemblies in the UK. The site is data driven, in so much as it provides an accessible interface over data drawn, automatically, from secondary sources. Originally, the data shown within the site was ‘scraped’ (using a web robot tool) from the Hansard website. This led to a discussion in the House of Commons that the site was performing an illegal act. Whilst no prosecution took place, and whilst the site went on to become one of the most well known civic technologies in the UK, it no longer scrapes data from the Hansard site. In fact, since the Open Data initiative (XXXX), the site draws its data directly from a government API.

Aims

Quoting directly from the website, the aim of makers of the site is that it should ”make it much easier for anyone to understand exactly what is going on in Parliament”. I suggest that that aim has been implemented through three aspects of the site: (i) a front-end design that engenders accessibility; (ii) the

curation of permanent URLs; and (iii) the provision of open source and freely available code.

Implementation

Accessible design: search box

The screen shot within Figure 1 depicts the home page of the site, and prominently displayed within the home page is a search box, which, amongst other types of entries, accepts postcode [1] values. When a user enters a postcode within the search box the site will subsequently display information about the MP associated with the entered post code.

This clear and simple process is a good example of how the design of the site engenders accessibility, particularly for those users who do not know the name of their MP.

Accessible design: text only

A second way in which the design of the site engenders accessibility can be seen from the screen shot within Figure 2. The screen shot depicts a terminal (or console) based text only browser, and it is displaying the information from the They Work for You site for the current UK Labour Party leader Jeremy Corbyn. The text only browser displayed is called Lynx [2], which was created at the University of Kansas in 1992, and which was successor to the first browser (known as 'WorldWideWeb' [3]) developed by Tim Berners Lee [4].

Relatively few modern web sites fully support text only browsing, due to the inclusion of client side JavaScript DOM manipulation. However, text browsers are frequently the basis for text to speech browsing (or transformations) as used by those with disabilities, such as blindness. As such, the fact that the site can be viewed via a text only browser is another demonstration of how its design engenders accessibility, and, hence, contributes to civil society.

Permanent URLs

The second aspect of the site that enables it to contribute to civil society is the construction of permanent URLs (or web addresses).

The screen shot within Figure 3 shows a summary page (from within the They Work for You) for a debate between two MPs in the House of Commons. The

debate, itself, is published by They Work for You with a permanent and unique URL. In addition, each speech (or interjection) within the debate can be viewed (and references) separately; such that, the They Work for You site also allocated permanent and unique URLs to each interjection, as can be seen from the screen shot within Figure 4.

Such URLs curate all interjections and their parent debates, enabling references to them to be used accurately across the web.

Open source

The third aspect of the implementation of the site that enables it to contribute to civil society is through the provision of open source, freely available code.

To that end, the They Work for You site was redeveloped into a tool called Pombola. The screen shot within Figure 5 depicts information about Pombola showing that it is currently being used to provide information about the parliaments in both Kenya and South Africa.

The Pombola code [5] is freely accessible from the GitHub [6] open source, online code repository, as seen within Figure 6. It is worth noting that the development of Pombola was financed by the Omidyar Network [7], which is a philanthropic investment organisation, and which was launched by the founder of the auction based e-commerce site eBay [8] Pierre Omidyar [9]. Furthermore, and highlighting the sometimes complex interplay between civic technologies, the tools that they use, and commercial technologies, GitHub was recently bought by Microsoft [10].

Summary

Taken together, They Work for You contributes to civil society through its implementation, whose key aspects are: (i) accessible design; (ii) the construction of permanent URLs; and (iii) open source and freely available code, which, additionally (and through Pombola) aids the development of civil society in secondary countries.

Values

It is suggested that the values inscribed within They Work for You are the civic virtues of cooperation and data sharing. On the one hand, the site enables data about parliament to be more accessible, as exemplified by the design of the search box and the ability of the site to be viewed via text only browser, such as Lynx.

On the other, the code has been packaged and is freely available, with a open source XXX license.

Challenges

Finance

A second challenge facing They Work for You, and one that they may well share with many charitable organisations, is a lack of finance. To that end, Figure 7 depicts the home page of the site with an apparently permanent banner advert for donations. That being said, and according to a Guardian article in 2008 [11] They Work For you via parent organisation MySociety undertook paid work for the government to produce the UK e-petition site.

A screen shot of the e-petition site can be found within Figure 8. In addition, the They Work for You now offer a paid for Application Programming Interface (or API) enabling secondary groups of individuals to access data (once an appropriate licence) has been bought.

Users

One of the primary challenge faced by They Work for You in fulfilling such contributions to civil society concerns the type of users accessing the site. Although They Work for You do not publish user statistics, the site has an Alexa rank of approximately 125,000 [12], suggesting, at least anecdotally, that the site receives around 20,000 user visits per month. Whilst the contributors to the development of the site should be proud of such user engagement, it is suggested, however, that there may be an element of self selection amongst those using the site; that is, they are already interested in politics. Moreover, such self selection may ameliorate the strength of the contribution of the site as a whole to the general public and, thereby, civil society.

Data object

One example of the dochotomy between an MPs voting patterns and their community work concerns former University of Edinburgh student Ian Murray [13], who has been the MP for the Edinburgh South constituency since the UK 2010 general election. In 2015, Hearts of Midlothian football club, which was founded in XXX, and which is one of the two football professional clubs in Edinburgh, faced closure following the bankruptcy of its Russian owner, XXXX. As a consequence of his role as the local MP, Ian Murray was asked by supporters of

the club to liaise with the club's official receivers. Over several years, his work led to a supporters buyout the club, which is now the only football club in the Scottish (or, indeed, the English) Premier League to be owned by the supporters. Ian Murray was subsequently interviewed [14] on the BBC Parliamentary channel [15] with regard to a book he wrote, *This is our story* [16], describing his work helping the supporters of the football club.

However, while Ian Murray's involvement came about because of his role as an MP, it did not involve any specific questions in the commons. Consequently, is not described by the aggregated data on his They Work for You page, as can be seen from the screen shot within Figure 10.

Data object: response

That being said, They Work for You are aware of the problem. Within the page associated with each MP, they have added a section called Numerology, as can be seen from the screen shot within Figure 11, which highlights some of the problem around a data driven and potentially data object perspective.

Summary

In short, two of the challenges faced by They Work for You in fulfilling its aims towards civic society are: (i) how to promote an understanding of politics beyond those already interested in the subject, which is an issue that can be further addressed via web analytics; and (ii) they may face financial pressures, though as mentioned the overall picture of their finances may be more complex than it at first seems.

Taxonomies of civic technology

Overview

In XXX Micah Sifry presented a visual depiction of a cartesian taxonomy of civic tech, as shown within Figure fig:taxonomy-sifry. The vertical axis of the taxonomy represented a scale of participatory engagement from thin to click, with 'thin' representing simply clicking a like button, and 'thick' representing activities more involved. The horizontal axis of the taxonomy depicts a scale of the aggregated outcome of such engagement, from purely symbolic to those that promote lasting impactful change.

Groups

Micah Sifry's taxonomy offers a powerful means of discriminating between and identifying different types of civic technologies. However, it is suggested that it does not offer a comprehensive means of describing individual projects. For instance, the taxonomy does not (directly) incorporate the nuanced conception of group membership outlined by Noveck. Nor does it address the political, social and engineering decisions underlying the technologies involved in such projects.

Infrastructure

A second issue not directly addressed by Micah Sifry's taxonomy concerns the technologies underlying a civic tech project. This issue is of particular importance when such projects are undertaken in regions of the world without freely accessible web networks. In addition, and with particular regard to the open data movement, mentioned above, it is worth noting that much of the UK government's open data is hosted on Microsoft Azure cloud based systems. That is, and as noted by XXXX, there may be elements within the broader open data movement that are as concerned with profit as open knowledge.

Pipeline taxonomy

Overview

The diagram within Figure fig:taxonomy-pipeline represents an alternative, 'pipeline', taxonomy of civic technology projects. On the far left hand side of the diagram, can be found low Level technologies, such as servers or the accessibility of open web networks - important when considering civic technologies in countries with restrictive web practices. Moving forward to the right, the taxonomy addresses the design of individual civic tech projects, including the type of content that they offer. The taxonomy then encompasses the types of engagement such projects offer, particularly with regard to group membership. Lastly, it finishes with a phrase coined by Tom Steinberg (the founder of My Society), namely, civic power. That is, what types of civic power does a project engender.

Wikipedia

Despite the limitation mentioned, the Pipeline taxonomy will be used to compare They Work for You with another civic technology, which, in this case, will be Wikipedia. Wikipedia was founded by James XXXX in YYYY and has grown since then to become one of the largest user maintained repositories of knowledge, with approximately XXXX volunteers writing and maintaining articles.

From a low level perspective, both They Work for You and Wikipedia are (or were) written in the open source, interpretive PHP scripting language. In terms of design and content, Wikipedia (as mentioned) is user maintained by a large group of volunteers. In contrast, the content within They Work for You is automatically generated from API data feeds. Moreover, the code handling and displaying the data represented by such feeds would appear to be maintained by a relatively small team of volunteers. Consequently, it is suggested that the different forms of content generation give rise to differing volunteer groups. Wikipedia volunteers may have a sense of ownerships or involvement with a relatively small part of the overall encyclopedia. That being said, they are directly concerned with what is displayed on the web. In contrast, the volunteers working for They Work for You may be considered to operate in a more detached manner.

It is also worth noting that civic technologies may give rise to secondary groups, blurring the distinction between end users and volunteers. Earlier iterations of the They Work for You site contained a ranking of MPs by (in one case) the number of written questions that they had submitted to ministers. As the site became more well known, anecdotal evidence suggested that a small number of MPs were attempting to game the system by asking their advisors to make additional requests. This is an interesting circular example, where (if true) the behaviour of MPs was modified by the presence of the ranking indicator within the site. Please note that They Work for You have since removed such rankings.

Lastly, whilst both They Work for You and Wikipedia promote the civic power of open knowledge, Wikipedia does so (directly) by enabling end users to become volunteers.

Further research

Further analysis of They Work for You could be undertaken by extending the research methodology outlined by Richard Rogers within The Datafied Society. His work was concerned with examining the biases that result from personalisation when conducting web search using major search engines. His methodology could be extended with regard to They Work for You to examine the relation-

ship between personalisation and web searches for specific MPs' pages on They Work for You.

Summary

I would suggest that this pipeline taxonomy offer strong descriptive power (per individual civic tech project) but, unfortunately, lacks the discriminative clarity of the taxonomy proposed by Micah Sifry.

Conclusion

Appendix

References

- [1] “Uk postcodes.” https://en.wikipedia.org/wiki/Postcodes_in_the_United_Kingdom.
- [2] “Lynx browser.” [https://en.wikipedia.org/wiki/Lynx_\(web_browser\)](https://en.wikipedia.org/wiki/Lynx_(web_browser)).
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- [17] “Google analytics.” https://en.wikipedia.org/wiki/Google_Analytics.

Web analytics

Figure 9 depicts a screen shot of network traffic generated by the They Work for You site when viewed using the Chrome browser. The five entries towards the bottom of the screenshot show that the site is sending information about user activity to Google Analytics [17] on an approximately second by second basis. That is, the client browser that the author of this essay used to view the site is sending information to Google Analytics. This finding suggests that They Work For You as an organisation do have access to statistics about user activity on their site. However, given that They Work for You is a small charitable organisation, it may well be the case that make use of the free version of Google Analytics. If that is the case, then the rights to the aggregated analytics data are held by Google, and that may explain why they don't publish data about usage of the site.

Figures



Figure 1: Search box

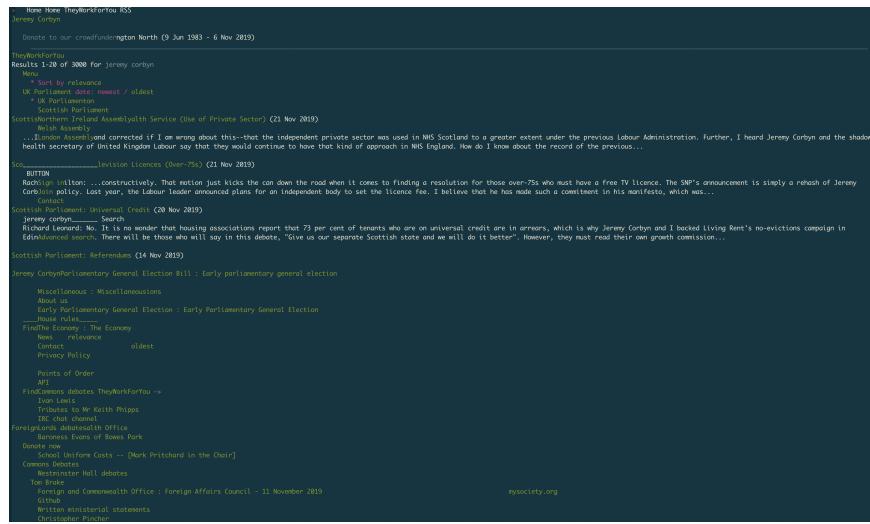


Figure 2: Text only browsing

« Previous answer All Written Answers on 5 Nov 2019 Next answer »



Sarah Jones
Shadow Minister (Housing, Communities and Local Government) (Housing)

To ask the [Secretary of State](#) for Housing, Communities and Local Government, what discussions he has had with the expert advisory panel on building safety on revising Advice Note 14 following the increase in unsalable properties in tower blocks.

[Tweet](#) [Share](#)
[Hansard source](#)
(Citation: HC Deb, 5 November 2019, cW)



Esther McVey Minister of State (Housing, Communities and Local Government)
[Holding answer](#) received on 21 October 2019
It has not proved possible to respond to the hon. Member in the time available before Dissolution.

[Tweet](#) [Share](#)
(Citation: HC Deb, 5 November 2019, cW)

Figure 3: They Work for You: permanent page for a debate



Nick Brown Opposition Chief Whip (Commons) ○ 2:07 pm, 31st October 2019

I am replying for the [Opposition](#), [Mr Speaker](#). Before I do so, however, may I say to you, Sir, that I want to identify myself with absolutely everything my right hon. Friend the [shadow Leader of the House](#) said in tribute to you. You have been an outstanding Speaker, and you deserve the gratitude of us all. I know that to be praised by the Opposition [Chief Whip](#) will probably not help your standing with your colleagues, but let us face it—just between the two of us—it is probably too late to make amends. I can truthfully say, [Mr Speaker](#), that nobody is going to miss you more than I am.

[See this speech in context](#)

[Tweet](#) [Share](#)

(Citation: HC Deb, 31 October 2019, c553)

Figure 4: They Work for You: permanent page for a single speech

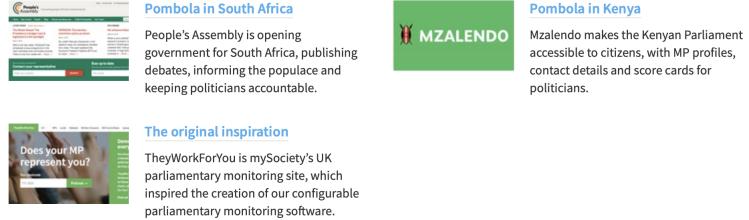


Figure 5: They Work for You: Pombola

No description, website, or topics provided.

5,890 commits 121 branches 0 packages 0 releases 31 contributors AGPL-3.0

Branch: master New pull request Create new file Upload files Find file Clone or download

chrismyton Merge branch 'update-pdftohtml-requirement' × Latest commit cb0f4a7 10 days ago

File	Description	Time Ago
bin	Use the new za_hansard source command in cron	3 months ago
conf	Merge branch 'remove-unused-files'	6 months ago
data	Make location Merge branch 'remove-unused-files' a directories configurable	6 months ago
docs	Update BACKGROUND.md to reflect za_hansard move	4 months ago
pombola	Merge branch 'update-pdftohtml-requirement'	10 days ago
pombola_sayit	pombola_sayit: also create Identifier objects with Pombola slugs	3 years ago

Figure 6: They Work for You: GitHub

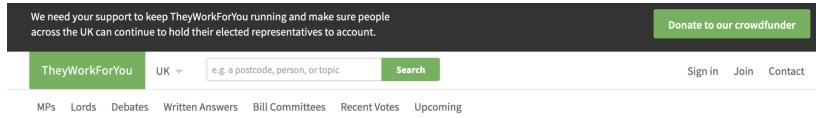


Figure 7: They Work for You: banner advert for donations



Figure 8: UK Government: E-Petition web site

DevTools - www.theyworkforyou.com/					
		Elements	Console	Sources	Network
		Preserve log	Disable cache	Online	
Filter		Hide data URLs	All	XHR JS CSS Img Media Font Doc WS Manifest Other	
500 ms	1000 ms	1500 ms	2000 ms	2500 ms	3000 ms
3500 ms	4000 ms	4500 ms	5000 ms	5500 ms	6000 ms
6500 ms	7000 ms				
Name	Request	Status	Type	Initiator	
collect?v=1&_v=j79&aip=1&a=1714457237&t=event&s=5...-660910-1&_gid=16545460...	200	gif	analytics.js:16		
collect?v=1&_v=j79&aip=1&a=1714457237&t=event&n=1...-660910-1&_gid=16545460...	200	gif	analytics.js:16		
collect?v=1&_v=j79&aip=1&a=1714457237&t=event&n=1...A-660910-1&_gid=1654546...	200	gif	analytics.js:16		
collect?v=1&_v=j79&aip=1&a=1714457237&t=event&n=1...-660910-1&_gid=16545460...	200	gif	analytics.js:16		
collect?v=1&_v=j79&aip=1&a=1714457237&t=event&n=1...-660910-1&_gid=16545460...	200	gif	analytics.js:16		

Figure 9: They Work for You: Google analytics

The screenshot shows the TheyWorkForYou website interface. At the top, there is a navigation bar with links for 'UK' (dropdown), a search bar ('e.g. a postcode, person, or topic'), and 'Search' button. To the right are links for 'Sign in', 'Join', and 'Contact'. Below the navigation is a horizontal menu with links for 'MPs', 'Lords', 'Debates', 'Written Answers', 'Bill Committees', 'Recent Votes', and 'Upcoming'. The main content area features a profile card for 'Ian Murray' (Former Labour MP for Edinburgh South). It includes a small portrait photo, his title, and social media links (@ianMurrayMP on Twitter and https://facebook.com/ianMurrayMP on Facebook). Below the profile card is a search bar for 'Search this person's speeches' and a 'Search' button. The main content area has tabs for 'Overview', 'Voting Record', and 'Recent Votes'. On the left, there is a sidebar with links for 'Votes', 'Appearances', 'Profile', 'Numerology', and 'Register of Interests'. The central content area displays a section titled 'A selection of Ian Murray's votes' with two examples: 'Almost always voted against a reduction in spending on welfare benefits' (2 votes for, 42 votes against, 10 absences, between 2014-2016) and 'Almost always voted against reducing housing benefit for social tenants deemed to have excess bedrooms (which Labour describe as the "bedroom tax")' (0 votes for, 16 votes against, 2 absences, between 2011-2018). Each example has a 'Show votes' link.

Figure 10: They Work for You page for MP Ian Murray

Numerology

Please note that numbers do not measure quality. Also, representatives may do other things not currently covered by this site. [More about this](#)

Has spoken in **80 debates** in the last year — well above average amongst MPs. [See all Jeremy Corbyn's speeches](#)

Has received answers to **0 written questions** in the last year — well below average amongst MPs.

Replied within 2 or 3 weeks to [a very low](#) number of messages sent via WriteToThem.com during 2015, according to constituents.

Has voted in [73.43% of votes](#) in this Parliament with this affiliation — below average amongst MPs. (From Public Whip)

This MP's speeches, in Hansard, are readable by an average **18-19** year old, going by the [Flesch-Kincaid Grade Level](#) score.

492 people are tracking this MP

Has used three-word alliterative phrases (e.g. "she sells seashells") **2332 times** in debates — well above average amongst MPs. ([Why is this here?](#))

Figure 11: They Work for You: numerology section

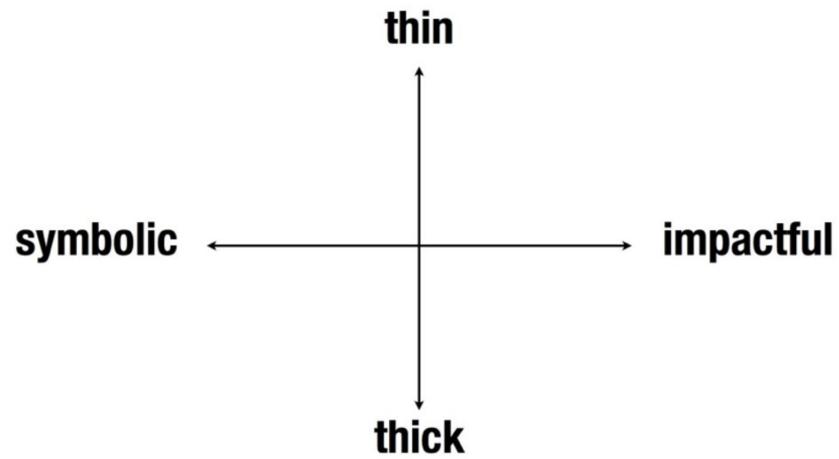


Figure 12: Taxonomies of civic technology: Sifry

Definition

Low level technology → civic tech design → civic group engagement → civic power

Figure 13: Pipeline taxonomy