

# Technologies of Civic Participation

They Work for You, trust and taxonomies of civic technology.

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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.

# Contents

<b>List of figures</b>	<b>5</b>
<b>Introduction</b>	<b>6</b>
<b>Open data</b>	<b>6</b>
<b>They Work for You</b>	<b>6</b>
Overview . . . . .	7
Aims . . . . .	7
Implementation . . . . .	7
Accessible design: search box . . . . .	7
Accessible design: text only . . . . .	8
Permanent URLs . . . . .	8
Open source . . . . .	8
Summary . . . . .	8
Values . . . . .	9
Challenges . . . . .	9
Data object . . . . .	9
Data object: response . . . . .	9
Summary . . . . .	10
<b>Taxonomies of civic technology</b>	<b>10</b>
Overview . . . . .	10
Groups . . . . .	10
Infrastructure . . . . .	11

<b>Pipeline taxonomy</b>	<b>11</b>
Overview . . . . .	11
Wikipedia . . . . .	11
Further research . . . . .	12
<b>Conclusion</b>	<b>12</b>
<b>References</b>	<b>13</b>
<b>Appendix</b>	<b>16</b>
A. FOIA . . . . .	16
B. Lynx browser . . . . .	17
C. Pombola . . . . .	18
D. Analytics . . . . .	19
E. Finance . . . . .	20
F. Users . . . . .	21
7. Figures . . . . .	22

## List of Figures

1	Search box . . . . .	22
2	Text only browsing . . . . .	23
3	They Work for You: permanent page for a debate . . . . .	24
4	They Work for You: permanent page for a single speech . . . . .	25
5	They Work for You: Pombola . . . . .	26
6	They Work for You: GitHub . . . . .	27
7	They Work for You: banner advert for donations . . . . .	28
8	UK Government: E-Petition web site . . . . .	29
9	They Work for You: Google analytics . . . . .	30
10	They Work for You page for MP Ian Murray . . . . .	31
11	They Work for You: numerology section . . . . .	32
12	Taxonomies of civic technology: Sifry . . . . .	33
13	Pipeline taxonomy . . . . .	34

## Introduction

A civic technology is one that aids civic society, where civic society, in this conception, is considered to be the *commons* mediating between commerce and government. There are a broad range of civic technology (or “civic tech” for short) projects, both commercial and charitable, from social networks such as Facebook [1] to election monitoring applications such as Ushahidi [2]. 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. An overview of They Work for You will be presented, along with a discussion of its aims and values. The challenges faced by the site will also be addressed, before it is compared with another project, Wikipedia [3], with regard to taxonomies of civic tech. Many civic tech projects, moreover, including They Work for You, encompass elements from the open data movement, and an overview of the movement will be presented directly below.

## Open data

It is suggested that there are two key tendencies within the broader open data movement. The first tendency aims to ensure the availability of open and common data licences and standards, as exemplified by the work of Creative Commons [4] and the World Wide Web Consortium [5] (W3C), from a wide range of related organisations. The second tendency, and with particular regard to politics, attempts to empower civic society with greater levels of knowledge, than would have been the case otherwise, in order to hold governments to account. A well known example of this tendency is Wikileaks [6].

From an American perspective one of the primary antecedents of the current open data movement is the Freedom of Information Act [7] (FOIA). Further information about the FOIA can be found within Appendix A. From a socio-logical perspective, however, one of the reasons why FOIA requests are made might relate to Anthony Giddens’ conception of trust [8] (as a consequence of modernity). He suggests that organisational and technological advances mean that many aspects of daily life can not be fully understood (from an individual perspective) and must, instead, be taken on trust. A corollary might well be a desire to uncover (as far as possible) the truth beneath such trust.

# They Work for You

## Overview

They Work for You is a civic technology that was founded by Tom Steinberg [9] in 2003. It provides information about political representatives, such as Members of Parliament (MPs) and Members of the Scottish Parliament (MSPs), across all four legislative assemblies in the UK. The site is data driven. That is, it provides an accessible user interface over data drawn, automatically, from secondary sources. Originally, the data shown within the site was scraped (using a WGET [10] based script) from the website of Hansard [11], which is the official record of all UK parliamentary debates. This led to a threat of legal action being taken against They Work for You by the government, because, at the time, no licence existed for the secondary use of Hansard data [12]. Whilst no prosecution took place, and whilst Tom Steinberg subsequently co-wrote a governmental review called *The Power of Information* [13], They Work for You no longer scrapes data from the Hansard site, at all. In fact, since the unveiling of the UK Government's Open Data Licence [14] (2010), as overseen by Tim Berners Lee [15], They Work for You has drawn data directly from a government Application Programming Interface [16] (or API).

## Aims

Quoting directly from the They Work for You site, its aim is to “make it much easier for anyone to understand exactly what is going on in Parliament”. It is suggested that that aim has been most fully realised with regard to the following three aspects of the site’s implementation: (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 screenshot within Figure 1 depicts the home page of the site, and prominently displayed within the home page is a search box, which, amongst other entry types, accepts postcode [17] values. When a user enters a postcode within the search box the site will subsequently display information about the MP associated with the entered postcode. This clear and simple process is a good example of how the design of the site engenders accessibility, and the postcode based search may be especially useful 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 screenshot within Figure 2. It 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 [18]. Further information about text only browsing can be found within Appendix B.

Relatively few modern web sites fully support text only browsing, due to the inclusion of “Web 2.0” client side JavaScript [19]. However, text browsers are frequently the basis for text to speech browsing as used by those with disabilities, such as blindness [20]. 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, ultimately, contributes to civil society.

### **Permanent URLs**

The second aspect of the implementation that enables the site to address its aims is the construction of permanent Uniform Resource Locators (URLs or web addresses). The screenshot within Figure 3 shows a summary page (from within the They Work for You) for an exchange between two MPs in the House of Commons. The exchange, itself, is published by They Work for You with a permanent and unique URL. The construction of such URLs therefore provides a means of sharing (across the web) uniquely referenced debates and interjections.

### **Open source**

The last aspect of the implementation of the site that enables it to address its aims 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 screenshot 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 [21] is freely accessible from the GitHub [22] open source, online code repository, as be seen within Figure 6. Additional information about the development of Pombola and its hosting on GitHub can be found within Appendix C.

## **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. **MOREOVER - OPEN DATA**

## **Challenges**

### **Data object**

#### **CHALLENGES: FINANCE, USER TYPES - Appendix D, E, F**

One example of the dichotomy between an MPs voting patterns and their community work concerns former University of Edinburgh student Ian Murray [23], 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 1874, and which is one of the two football professional clubs in Edinburgh, faced closure following the bankruptcy of its Russian owner, Vladimir Romanov. 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 [24] on the BBC Parliamentary channel [25] with regard to a book he wrote, This is our story [26], 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 2014 Micah Sifry [27] presented a visual depiction of a *cartesian* taxonomy of civic tech, as shown within Figure 12. The vertical axis of the taxonomy represented a scale of participatory engagement from thin to click, with “thin” representing a simple act, such as clicking a *like* button within Facebook, and “thick” representing more involved activities, such as, for example, developing Wikipedia entries. The horizontal axis of the taxonomy depicts a scale of the aggregated outcomes 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 [28].

In addition, it is also worth noting that civic technologies may give rise to *secondary* groups, which blur 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 the MPs has submitted to ministers. As the site become more well known, anecdotal evidence suggested that a small number of MPs had attempting to *game* the system by asking their advisors to make additional written requests (using the MPs name), and, thereby, improve their ranking on the site. 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. They Work for You have since removed such rankings.

## 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 in the UK, much of the UK government's open data is hosted using Microsoft Azure cloud based systems.

## Pipeline taxonomy

### Overview

The diagram within Figure 13 represents an alternative *pipeline* taxonomy of civic tech 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 practicies. Moving horizontally forward to the right, the taxonomy addresses the design of individual civic tech projects, including the types of content that they contain. The taxonomy then encompasses the types of engagement such projects offer, with particular regard to group membership. Lastly, it finishes with a phrase coined by Tom Steinberg [9], namely, "civic power" [29]. That is, what types of "civic power" does a project engender.

## Wikipedia

The *pipeline* taxonomy will be used to compare They Work for You with another civic technology, Wikipedia. Wikipedia was co-founded by Jimmy Wales [30] and Larry Sanger [31] in 2001 and has grown since then to become one of the world's largest user maintained repositories of knowledge, with approximately 30 million registered volunteers (or *Wikipedians*) writing and maintaining articles.

From a low level perspective, both They Work for You and Wikipedia are (or were) written in the open source PHP scripting language [32]. 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 ownership 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. 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 relationship between personalisation and web searches for specific MPs' pages on They Work for You.

## Conclusion

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.

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## A. FOIA

From an American perspective one of the primary antecedents of the current open data movement is the Freedom of Information Act [7] (FOIA), which was signed into law by President Lyndon B Johnson [33] in 1967. Though more limited in scope than the initial draft legislation championed by Congressman John E Moss [34], and though (at least initially) only concerning the federal government - and with restrictions on classified material - the act nevertheless represented a significant addition to the rights of ordinary American citizens. Consequently, the introduction of the FOIA might be considered to have increased of the potential of civic society to understand an administration and it hold it to account. To that end, over eight hundred thousands FOIA requests were made in 2017 [35] (the most recent year for which figures are available).

## B. Lynx Browser

The text only browser used as a the basis for the screenshot is called Lynx [36]. It was created at the Univesity of Kanas in 1992, and was successor to the first browser (known as 'WorldWideWeb' [37]) developed by Tim Bernes Lee [15].

## C. Pombola

The text only browser used as a the basis for the screenshot is called Lynx [36]. It was created at the Univesity of Kanas in 1992, and was successor to the first browser (known as 'WorldWideWeb' [37]) developed by Tim Bernes Lee [15].

## D. 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 [38] 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.

## E. Finance

One challenge facing They Work for You, and one that they may well share with many charitable organisations, is a possible lack of finance, which might hinder ongoing developments to the site. To that end, Figure 7 depicts the home page of the site with an apparently permanent banner advert for donations. However, and according to a Guardian article in 2008 [39] 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, They Work for You now offer a paid for API enabling secondary groups or individuals to access their data (once an appropriate licence has been bought).

## **6. Users**

A second challenge faced by They Work for You concerns the type of users accessing the site. Although They Work for You do not publish user statistics, and though further information about the site's potential use of statistics can be found within Appendix 3, the site has an Alexa rank of approximately 125,000 [40]. This suggests, at least anecdotally, that it 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, 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.

## 7. Figures



Figure 1: Search box

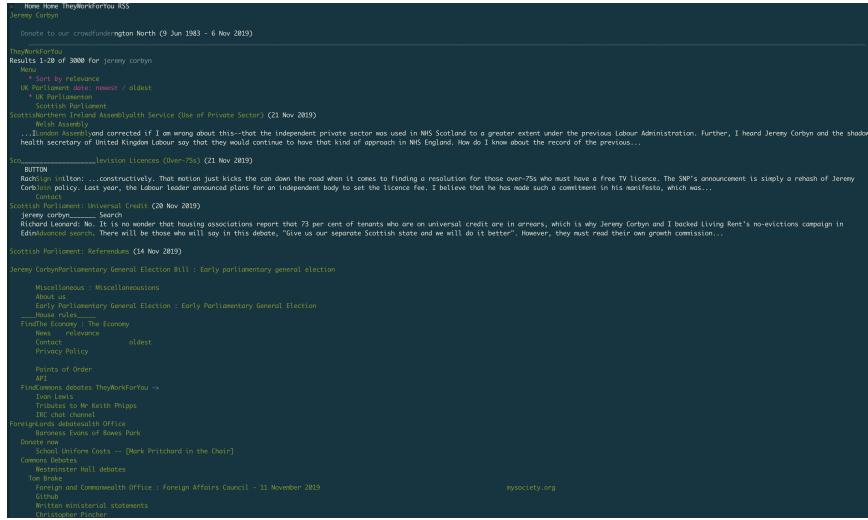


Figure 2: Text only browsing

« 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

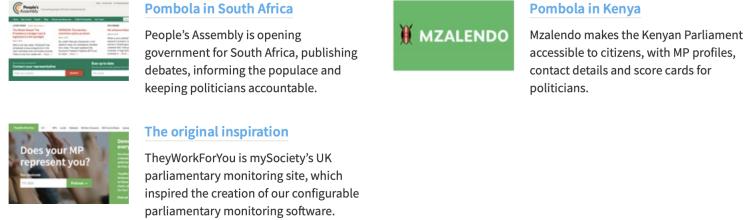


Figure 5: They Work for You: Pombola

The screenshot shows the GitHub repository page for `mysociety / pombola`. At the top, there are buttons for Watch (19), Star (63), Fork (48), and Insights. Below the header, it says "No description, website, or topics provided." A summary bar shows 5,890 commits, 121 branches, 0 packages, 0 releases, 31 contributors, and AGPL-3.0 license. A dropdown menu shows "Branch: master". There are buttons for "New pull request", "Create new file", "Upload files", "Find file", and "Clone or download". A list of recent commits is shown, all made by `chrismyton`:

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

Figure 6: They Work for You: GitHub

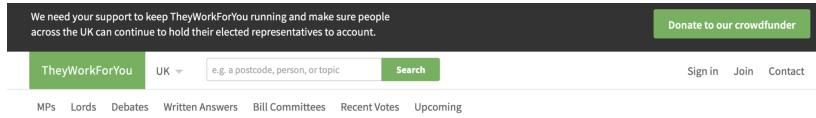


Figure 7: They Work for You: banner advert for donations



Figure 8: UK Government: E-Petition web site

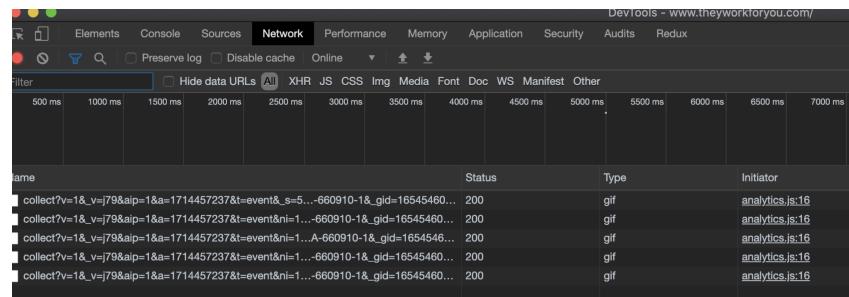


Figure 9: They Work for You: Google analytics

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 'Sign in', 'Join', and 'Contact' buttons. Below the navigation is a horizontal menu with links: 'MPs', 'Lords', 'Debates', 'Written Answers', 'Bill Committees', 'Recent Votes', and 'Upcoming'. The main content area features a profile 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). Below this is a search bar for 'Search this person's speeches' and a 'Search' button. The page is divided into sections: 'Overview' (selected), 'Voting Record', and 'Recent Votes'. On the left, a sidebar lists links: 'Votes', 'Appearances', 'Profile', 'Numerology', and 'Register of Interests'. The central section is titled 'A selection of Ian Murray's votes' and contains 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' button.

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

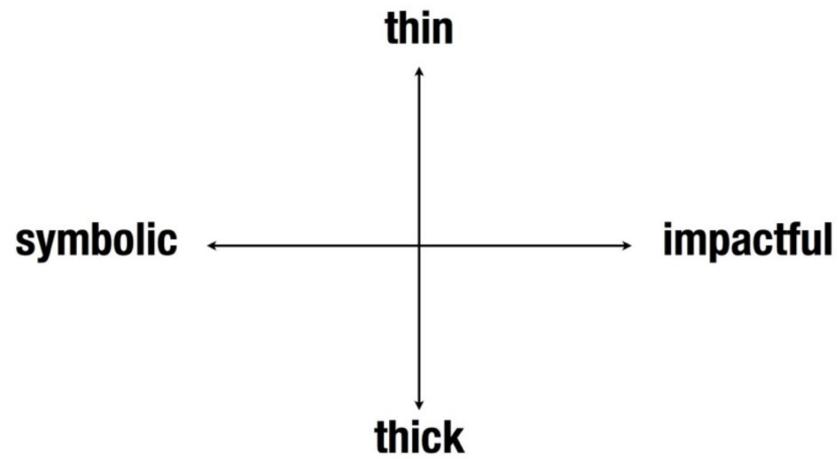


Figure 12: Taxonomies of civic technology: Sifry

### Definition

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

Figure 13: Pipeline taxonomy