Pull.

powered by the engine room

Project Document

the engine room

in partnership with

ToolBox Initiative

get in touch with pull [at] theengineroom [dot] org if you have questions or ideas for collaboration

GLOSSARY OF TERMS

Data Supplier
Organizations or individuals with databases that are relevant to the Pull project

Pull Partners
Data aggregators that have designed databases adhering to Pull standards and included in the Pull Library

Pull Library
A collection of data sets that conform to Pull Standards and are queried by the Pull search interface

Pull Standards
A set of guidelines for taxonomies and database structuring that guarantee interoperability and must be met by a database for it to be included in the Pull Library

Pull Search Interface
A search interface for accessing all data in the Pull library. The search interface will be available in its central location on the Toolbox website, and also downloadable as web add-ons.

Web add-ons
Downloadable iterations of the search interface that can be easily added onto existing third party sites. Web add-ons will be released in the form of Drupal modules, Wordpress plugins and html widgets.

Pull API
API released by the project in order to allow 3rd party developers to produce alternative search interfaces and functionalities

BACKGROUND

Increasing interest in the potential of new technologies for social change has led to a proliferation of support initiatives, including efforts to collect and publish online resources for digital advocacy. Often, such initiatives produce an online database to provide users with free and easy access to knowledge products or other resources. Such databases tend to focus exclusively on specific types of resources (case studies, training materials, tool profiles) and tend to be stored on the websites of producing institutions.

CHALLENGE

The resources collected and published by support organizations provide essential information for advocates and researchers. However, not all databases are equally well known. There are no automated mechanisms for the cross comparison of data housed in individual databases, and it is not possible to simultaneously query multiple databases. The siloing of resources is natural in a burgeoning field, but this tendency poses obstacles to end users and data suppliers alike.

For those seeking information, the scattered nature of resources significantly raises transaction costs of seeking that information, and decrease the likelihood of successfully finding relevant information. In the long run, this inhibits the safe and effective use of technology in advocacy.

For those producing or providing access to information, lack of coordination represents a significant opportunity cost, as each data set seeks exposure to the largest number of potential users, and there aren't incentives or mechanisms to send users to other relevant data sets. This introduces a competitive dynamic, which is exacerbated by a relatively small constituency and strong semantic variation across data sets.

An informal survey conducted by the engine room indicates that most relevant databases are not well known by their intended end-users, and are unlikely to be found through the issue-focused searches advocates are likely to employ. The engine room's preliminary mapping has identified 8 databases/data sources that provide essential information for strategizing the use of technology in advocacy. A select group will be approached for developing Pull's initial specifications.

PROPOSED SOLUTION

The Pull project will engage with data producers, support organizations and technologists, to develop mechanisms and standards for interoperability, and will produce various tools for accessing relevant databases.

Outcome 1

Interoperable functionality between resource and information databases for digital technology in advocacy. Interlinking even 3-4 key databases of tools, strategies and/or case studies will provide a powerful resource for end users [and increase efficiency in finding the right information for the right query].

Outcome 2

Increased prominence and accessibility of resources and information. Hosting a central and common search interface on the website of The Toolbox project, disseminating modules, plugins and widgets with the same functionality, and conducting targeted outreach will significantly increase the visibility of participating data sets and raise awareness on the breadth of data and resources available to end users.

Outcome 3

Community of data producers participating in the Pull project will improve the quality and consistency of data collected and produced for the common good. This community will also provide a platform from which to advocate and collaborate on related open access issues.

Outcome 4

Best (and open) practice in data interoperability will be an important normative move in the field. By establishing standards for open database production, the Pull project will establish itself as the rallying point for open data and research initiatives in the area of digital technology in advocacy. The project will also disseminate its standards and practice as a template for interoperability initiatives conducted by advocates, seeking to increase access to information at the local or regional register.

ENVISIONED USER EXPERIENCE

Pull will provide a series of outputs to facilitate the access and aggregation of resources for a number of different types of end users.

1. **Individuals or organizations seeking strategic resources (search interface users)**

   Individuals or organizations using digital or mobile technologies in their advocacy will be able to use the Pull search interface to access various types of information and resources. Entering a series of criteria to describe their particular needs and context (such as geographical focus, issue area, or types of advocacy/programming) will return results from all partner databases. Users will then be able to filter these results for specific content types/databases, in order to see only strategies, tools, softwares, etc.

   Individual results will include links for additional information, including contact information if relevant.

2. **International researchers or campaigners (search interface users)**

   International researchers or campaigners will also be interested in quickly identifying the information and resources available for technology in advocacy in specific issue areas or geographies. In addition to the information and links provided for specific results, users will also be able to view results at a meta-level, noting tallies and trends in content types and meta-data, according to specific search criteria. This will provide contextual overview to better understand the role of technology in advocacy in specific geographies or issue areas.

3. **Data producers seeking to promote their data set (standards users)**

Support organizations or researchers who collect or aggregate data sets relevant to the Pull project will be able to develop those data sets according to the Pull Standards, enabling interoperability with the Pull partner data sets. These data suppliers may then apply to the engine room to be included in the Pull library, from which the official search interface site and add-ons will query information. Alternatively, data suppliers can have their data included in alternative, 3rd party searches, using the Pull API to mix their data with any other data sets that adhere to the Pull Standards.

4. **Info-mediaries to specific communities (web add-ons users)**

Info-mediaries that service specific communities, such as local campaigners, bloggers, or community media organizations will be able to provide access to Pull data by posting web add-ons to their websites.

Info-mediaries will be able to access versions of the central search interface in the form of Drupal Modules, Wordpress plugins or html widgets through the Toolbox website, for easy additions to existing websites. Alternatively, info-mediaries can use the Pull API to develop alternative search interfaces, either to enable functionality or language of particular relevance to their target communities, or in order to access specific data of interest to their communities.

The end users of infomediaries' sites will then be able to search and retrieve relevant information directly through the familiar and trusted websites of info-mediaries.

IMPLEMENTATION

The Pull project will be implemented in **5 key phases**, each focusing on distinct outputs.

Phase 1: Developing specifications

Specifications for Pull outputs will be developed incrementally and with input from an increasing number of partners. In the initial phase, 2-4 data suppliers and 1-2 technologists will inform the development of background materials, such as mappings and wireframes. Additional partners will be brought on board as the project approaches a full set of specifications.

Partners will engage with the project in the interest of promoting their individual data sets, but also in the service of their general mandates. Active partners at the time of development will provide access to their data, as well as strategic and outreach support for the development of Pull outputs, such as the API, standards and search interface.

The project lead will manage correspondence and relationships with individual partners to ensure their active contribution to the development of Pull specifications, and other strategic support.

Phase 2: Interoperability

On the basis of input from Pull partners, the project will produce two main outputs for interoperability:

a) Database Standards for Interoperability Across Databases

A common standard will be developed for public information databases on the use of technology in digital advocacy. These standards will be informed by input from data suppliers and technologists, as well as a mapping of participating data sets' taxonomic structure and other characteristics. The open standards are intended to inform the development and production of future data sets in the field.

b) Open API for Interoperability Across Databases

APIs are the bridges between databases and those who want to access them. An open API will be produced to query participating databases (and all future databases that adhere to the Pull standards), and to allow the development of 3rd party applications to do the same.

Phase 3: Search Interface

The development of open standards and a common API will correspond with developing a common search interface for all participating databases. This interface will facilitate end user access to a wide variety of information and resources, to support the safe and efficient use of new technologies in advocacy.

The interface will be constructed for integration into the Toolbox website, which will serve as the primary "location" for the Pull project. The code for the interface will be open source and stored on GitHub to allow for replication and adaptation by third parties.

Phase 4: Web Add-ons

Development of standards, API and a central interface will support the production a Wordpress plugin, Drupal module, and raw code for multi-platform widgets. These web add-ons will be disseminated so that they can be repurposed for a variety of use cases, with minimal technical expertise. Anticipated users include regional and country-level civil society organizations already managing web platforms and portals for information to advocates in specific issue areas.

Phase 5: Outreach and Dissemination

Pull partners will actively support the promotion and dissemination of the project outputs. This will include both the tools and interfaces for querying participating databases, as well as the promotion of the Pull standards for data sets under production. The engine room will manage an ongoing dialogue with partners to address strategic development of the standards and the initiative.

PRELIMINARY TIMELINE

Month 1
- Coordinate to identify and prioritize partners
- Project manager recruited
- Initial partners secured

Month 2-3
- Produce background information
  - mapping of participating database characteristics
  - mapping of existing code and standards for adaptation
  - proposed criteria for inclusion in main search interface
  - recommendations on standards
- Preliminary user research conducted
- Wireframes
- Pull partners review mapping and recommendations
- Lead developer recruited

Month 4-5
- Additional partners secured
- Contract developer(s) and designer(s)
- Full specifications produced
- Work on Open API begins

Month 6
- Draft of standards produced and reviewed by Pull partners
- API produced and reviewed by partners

Month 7
- Interface developed
- Initial outreach to promote standards and API
- Beta release and testing of Toolbox search interface

Month 8
- Outreach and dissemination