Request for Proposals: Development of a website hosting an interactive data visualization
Deadline: 5pm ET, August 10, 2020, submitted to dfrlab@atlanticcouncil.org
Budget: $4k-8k

We're the Digital Forensic Research Lab, an international team of journalists, researchers and policy analysts, we seek to identify, expose and explain disinformation: who's creating it, how they're doing it, and how to stop it. Using open source tools and techniques, we take an interdisciplinary approach to create novel and informative reporting in order to combat disinformation in the ever-evolving information spaces online.

In the past year, a subset of the DFRLab endeavored to codify the disinformation documented by our researchers. What came to be known as the *Dichotomies of Disinformation* consisted of a rigorous code book, 65 coded cases, an academic proposal, and, in collaboration with Google Jigsaw, a visualization that would be featured in the inaugural publication of Jigsaw's *The Current* online magazine.

Since the *Dichotomies of Disinformation* was launched the team behind the project has grown, and with learned experience we have embarked on a new project: tracking online foreign interference attempts leading up the United States 2020 Presidential election. Since April of this year, our data collection has amassed 62 cases and counting, coded by a team of researchers against a rigorous taxonomy. For this project we aim to improve upon the format behind the *Dichotomies of Disinformation*, and create a tool that makes our analysis more accessible, functional, and informative to a more diverse audience online.

We are publishing this RFP to recruit a web developer to build an intuitive, functional, and imaginative web interface for our dataset.

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Background

Before we get to our goals for the visual aspects of the project, it is worth detailing exactly what we have set out to achieve with our Foreign Interference Attempts Tracker or FIAT, as it has come to be known.

The project has three objectives:

- To assess the evolution of digital foreign interference attempts targeting the United States, to include inauthentic digital activity that cannot be attributed solely to U.S. domestic actors.
- To evaluate the veracity of digital foreign interference attributions.
- To capture U.S. public discourse regarding alleged foreign inference.

The Foreign Interference Attempts Tracker will make it possible to monitor the methods and platforms attributed to foreign governments or proxies, seeing how they change over time. It will also be possible to track the volume of foreign interference claims that arise from particular U.S. entities and see whether certain kinds of foreign interference allegations generate more media interest than others.

A sample of our data will provided to interested parties. At this time the dataset consists of 63 cases comprised of 25 datapoints. Each case can be broken down into 3 meta fields (timestamp, 8 digit case hash, and a human readable case I.D.), 10 text fields (comprised of 26 text variables and 4 “other” text fields), 3 numerical measures, 2 URLs, 2 Geographic values (pertaining to nation), and 1 text description of the case. The codebook and dataset has been evolving for some time now, and has slowed as iterations become increasingly refined. The dataset may be subject to minor changes.

Project Goals

It is our intention to work with a web developer to help us craft and present our project in a way that will enable researchers, government officials, and concerned citizens to track possible instances of interference effectively. We hope to deliver our data visually in an intuitive and simple web interface and in a manner that provides the suitable context and framing for viewers to draw informed conclusions. It is important that visualization be approached more as tool than anything else, but remains functional, accessible, and appealing for a diverse audience.

Our requested deliverable is a web interface made available for desktop viewing on a standalone domain. Our foremost goal is to create a product that functions as a research tool, one that is stable and consistent and designed to scale with our dataset over time.

Proposed Design

We propose a web interface consisting of three ways to view the data. It is our intention to allow users to sort each of the three visualization formats listed below by several top-line parameters. At this time, we imagine these parameters to be: Disinformant, Disinformant Nation, Platform, Method, and Source, as well as a date range as specified by a slider or text field. In addition to top-line parameters, we have explored the addition of filter options that are specific to each of the three views in order to better frame or contextualize the data in ways that most benefit each specific visualization type.

A Map:

An interactive map would provide general geographic information about the origins of each case. Keeping in mind the Tracker is centered about interference directed towards the United States, we believe a heatmap would best demonstrate the volume of incidents per country. We imagine hovering over a country would reveal basic statistics about the nation and would provide valuable insight for users to browse. A more granular view of the data could be accessed once a country is selected, a panel with additional metrics (possibly as a table or list) about each instance may populate with information and cases pertaining to that nation. In the interest of providing context within the chronology of the dataset, the map view ought to include a timeline slider or option to animate the data as specified by the selected date range, visualizing cases as the map populates and time elapses.

Technical simplicity is important. It would be preferred to opt for a high resolution GeoJSON of an appropriate map projection rather than rely on a heatmap overlay on a map tiler (as some similar projects have done). Alternatively, a map tiler that could function as a heatmap could work; though a third-party map tiler is not out of the question it would be preferred to stick to free and simple options. We would like to preserve the ability to interact with the map by zooming and panning. At this time the dataset does not include country codes but can be delivered with a field denoting country codes numerically or in Alpha-3 at the outset of the project.

A Timeline:

It is our belief that a timeline will serve as the most effective method for communicating the contents of our dataset and ought to be the flagship representation among the three.

We have explored several options for a timeline view that could expand the viewable data for the otherwise one-dimensional format. We have entertained the idea of stratifying the timeline by case variables (methods, platforms, nations) and juxtaposing or overlaying the timeline with other date dependent datasets for added context. We are seeking creative approaches to the timeline that will remain functionally simple while working to optimize the user experience and information available at a glance.

The distribution of the cases has also been considered in debating the possibility or relevance of a zoomable timeline. There are some usability concerns about a responsive timeline, which may need to be worked out.

A Table:

In the interest of being comprehensive in our approach and providing the greatest possible access to our data, displaying cases in a table format would allow users access to detailed filtering and sorting options they might have in an Excel document. We would like to include the dataset in full, which regrettably may require horizontal scrolling if not for some creative solutions. The table should be highly functional and straightforward, and possibly come with the added functionality of a search bar (for parsing case text descriptions).

Functionality:

We would like to be able to preserve filter options in a unique URL, giving users the capacity to share filtered and sorted views of the data for reference or to highlight specific cases, visuals, etc.

We would like to be able to provide the functionality of a 'printable' rendered format of the three views for any given set of filtered parameters for export as a PDF or Image.

We would like to ensure that the tool is lightweight, and not contingent on a fast internet connection or substantial computing power for usability. We imagine a project done with D3, and React and/or Angular, we would like to minimize the use of animations that do not contribute to the understanding of the dataset.

Technical Details / Requirements

The vendor must ensure that the visualization works on all browsers and architectures. The vendor must design a landing page for the site that can accept basic copy that will be provided by the DFRLab. The vendor must design the project to accommodate continued growth as new cases are added to the dataset, and design the visualization to populate in kind. It is also important the visualization is not affected by minor changes to the dataset as it pertains to the addition of new fields. Though the codebook and dataset are in their final iterations, it is important to the DFRLab that the vendor remains accommodating to the possibility of small changes during the development process.

Post-launch Support:

Once the website launches, the vendor should be prepared to work on retainer for a set number of hours per week, for a minimum period of three months following the launch, in case any issues arise. After that period, the vendor and the DFRLab will determine a suitable number

of hours per month or quarter for routine updates and maintenance to the website infrastructure.

Deliverables

The DFRLab can provide the vendor with data in .CSV, .TSV, or .JSON formats and will be hosting the dataset on the DFRLab Github. We seek the vendor's guidance as it pertains to the most effective method of delivering updated versions of the data.

The DFRLab expects the following deliverables from the vendor:

- The vendor must provide mockups of each of the three views early in the development process and be willing to iterate on them and work with FIAT team in creating an effective and user-friendly tool.
- A functioning website featuring three visuals for displaying our data.
- Plan to accommodate responsiveness on multiple devices and user accessibility.
- Branding materials for the visualization

Budget

In your proposal, please provide a detailed breakdown of your proposed budget. We expect proposals to be in the range of $4k to $8k for development and completion of the website, with an additional, smaller budget for ongoing maintenance and support post-launch.

Project Timeline

The DFRLab hopes to deliver the project well before the 2020 Presidential election process ramps up. We believe the projects value add can be most realized providing foreground for the election and would like to have the project up and running as soon as possible.

August 13, 2020: Initiate work
August 18, 2020: Design Mockups Proposed
August 21, 2020: Design finalized
September 4, 2020: Deliver final product
September 7, 2020: Website launch

From the date of contract start we expect the delivered product within roughly 20 calendar days

Criteria for Selection

The DFRLab will base its selection of a vendor on several different components, including overall experience, level of technical capability, and forward-thinking design. The vendor should be experienced in data visualization and web development, demonstrate an attention to detail, and have an eye for effectively communicating through visual and interactive mediums. We

encourage vendors to share with us examples of their best and most effective work, and discuss how you've overcome challenges on past projects. Finally, we're looking for a vendor that will pitch creative solutions and demonstrate a tasteful balance of form and function in their proposal to visualize our dataset. We are seeking passionate and analytical developers who will be good shepherds of our data and represent it accurately and precisely, and we hope this passion and consideration comes through in all proposal submissions.

All of the DFRLab team is working remotely, but we are centered around the Eastern Time zone, we are willing to work with vendors outside of our time zones if working hours overlap enough to allow collaboration.

As noted above, the DFRLab will need to see examples of your previous work. The vendor should include two to three client references with contact information, as well as relevant context about those projects. They should also tell us why they would make the best partner for the DFRLab on this project, based on what they know about our project goals and expectations. The vendor should include a projected timeline with each stage of the design outlined, including both soft and hard launch deadlines as well as a follow up period, and a budget with specific line items for each stage of the process. The vendor should address the need for a responsive design in multiple browsers, screen sizes, and devices as well as an accessible design for all types of users by outlining its plans to implement responsiveness and ensure its success.

Proposal deadline and format

Proposals should be submitted to dfrlab@atlanticcouncil.org no later than 5pm EDT on Monday, August 10, 2020. We expect to initiate the project by August 14, 2020, so vendors should be prepared to make themselves available for interviews and questions immediately following the submission deadline. The vendor should list all team members, including their titles and biographies, who will be involved in this specific project on the proposal. The proposal can be submitted in a static document like MS Word or PDF, but we also welcome more interactive proposal presentations. If you have any questions, please address them to dfrlab@atlanticcouncil.org as well. Thanks for your time!