To paraphrase Donella Meadows, we can’t impose our will on Internet. We can listen to what Internet tells us, and discover how its properties and our values can work together to bring forth something much better than could ever be produced by our will alone.

The Observatory Tool
Dashboard Guide
(Vers. 02 - June 2016)
Index

Introduction
Dashboard Controls
Dashboard Components
Configuring panels
  Map Panel ④
  Histogram Panel ⑤
  Full Text Search Panel ⑥
  Terms Panel ⑦
  Heatmap Panel ⑧
Adding new panels
Saving a Dashboard
Loading a Dashboard
Accessibility
  Color Blind
  Keyboard Shortcuts
  Navigating with a Keyboard
Reporting Bugs and Requesting Enhancements
The Dashboard

Introduction

GIPO Tool Dashboard is an easy to read single page showing a graphical presentation of the current status and historical trends of key indicators (issues, tags, locations, etc.) in Internet governance topics (expressed as search queries).

Dashboards contain one or more controls for search query inputs and one or more displays over the results for that query.

A dashboard works as a web page that fetches data from GIPO’s Tool engine and displays them nicely with charts, graphs, tables, and maps (for geospatial data). It aggregates quantitative data about items so that users can get some meaning out of it. Dashboards also have tabular displays for drilling down to the individual items in a results set.

Dashboards run as a client-side application in a web browser, using JavaScript components for HTML5. The underlying browser application is an open-source visualization tool based on a Kibana 3 fork that was modified to work with Solr (because Kibana works only with Elasticsearch as data source).

Dashboard Controls

Here’s how to interact with the Dashboard interface.

The left side of the top menu bar displays the Dashboard title.

The right side of the top menu contains a set of controls:

- The home icon is the "Goto Default Dashboard" control. The initial pre-configured dashboard is the "GIPO Tool’s" dashboard.
- The sheet of paper icon opens the "Create Dashboard" dialog.
- The folder icon opens the "Load Dashboard" dialog.
- The diskette icon opens the "Save Dashboard" dialog.
- The gear icon opens the "Configure Dashboard" dialog for the current dashboard.

Dashboard Components

A Dashboard is a named layout which consists of:

- input panels which compose and submit the query
- display panels which provide information and visualizations of the results set.

Each time the input controls are updated, a new query is sent to GIPO Tool's which then re-populates the dashboard with the results set, causing all displays to update automatically.
The initial display is a pre-configured default dashboard with a series of input and display panels:

This pre-configured dashboard contains the following input panels:

1. Time Picker - used to specify the time range over which to search
2. Query: provides a search box to allow real-time filtering of data. With this panel, you can add, remove, label, pin and color queries.
3. Filter* - controls to the resulting query (by combination, limitation, etc.)
   *(the filter panel is hidden by default)
4. Full text search (only left side the panel) - used to limit the search by facets
And the following **display panels**:

4. **Map** - shows the amount of items that are tagged with the same country (most mentioned)

5. **Histogram** - shows the distribution of items over the time range (as specified in the timepicker panel)

6. **Full text search** (only right side of the panel) - shows the list of items returned by combined queries (as specified in the search panel). It provides a more traditional search interface to view textual data.

7. **Terms** - shows the scale of issues tied to search results

8. **Heat map** - shows the distribution of tags per issue

**Configuring panels**

Dashboards are organized into rows of panels. The default panel has five rows, each row showing up to two panels. All the panels in a row can be hid by clicking on the little up arrow placed just before the row, or can be showed by clicking on the name of its row.

Many of the panels of the pre-configured dashboard can be customized by clicking on the gear icon associated with that panel. Here we will highlight some of their most useful parameters.

**Map Panel**

This panel contains a choropleth map that displays quantitative data as a shadow of color. It shows the quantity of items in the search results within a geographic area. You can click on any country in order to restrict your query to that territory.

You can **select** (configure) the **map** to display only a preferred continent.

You can also **make the map zoomable**, and in that case you can zoom in and out by using your mouse's scroll wheel, and move the map by clicking on it and dragging the map in the direction you would like the map to move.

**Histogram Panel**

Underlyingly, server facets provide the counts displayed by the Histogram.

The facet parameters are derived from the Time Picker selection and the controls on the Histogram display panel.

These controls are used to select the type of count display and the time interval over which counts are aggregated.
**Time correction** setting specifies how time is calculated: browser displays values in local (client) time whereas utc keeps time as is.

**Full Text Search Panel**

The “fulltextsearch” panel displays the documents in the results set, 1 per row. The default display shows only the title embedding the link to the URL of the original item in its source.

The "Limit your search" control is used to limit the search results by any of the available facets (issues, tags, and world regions). When selecting terms in facets, all the panels update their information accordingly.

**Terms Panel**

The terms panel displays by default a bar graph that is a graphical display of data using bars of different heights. This is a good way to show relative sizes of data categories, in our case the Internet governance issues. You can click on any bar in order to restrict your query to that issue.

You can select a different style of graph such as pie graph or just display a table with the terms and their count. You can also specify the color palette, the display of legends and their position or the sorting and ordering of the terms.

**Heatmap Panel**

The heatmap panel displays a heatmap, which is a table that has colors in place of numbers.

By using tags and issues for x and y dimensions, and showing the count of data elements in each range as color intensity (darker for more), the resulting heat map shows the distribution of the tags over issues.

You can configure a different mix of information crossing by changing the row and column fields.

You can also select a different base color for the cells of the heatmap.

**Adding new panels**

Dashboards are organized into rows. In order to add a new panel to a dashboard, you choose the row you want to add that panel to. This opens the Row Settings panel, which allows you to rearrange and add to the panels on that row.
To add a new display panel click on the “Add panel” tab and then choose a panel type. Depending on the panel selected, different configuration options will appear.

**Saving a Dashboard**

The configuration changes you make to a dashboard is all work that has been done client-side. In order to save the dashboard for future sessions, it must be saved.

The top menu bar diskette icon opens the Save dialog. The layout, not data, of the dashboard can be saved locally, whether in a file or in the browser’s local storage, or even externally in an anonymous cloud service (Gist).

Dashboard saved files are text files in JSON format whose contents can be viewed and edited with a simple text editor.

**Loading a Dashboard**

The top menu bar folder icon opens the Load dialog. From this controls you can either reload or delete a saved dashboard configuration.

When the dashboard configuration is reloaded, the configured query or queries will be rerun and the panel displays will be populated with the results.

**Accessibility**

One of our primary concerns is to make GIPO’s Tool accessible to as many people as possible. Unfortunately, there are limitations to what we can do. Data visualization is by definition, a practice for sighted people.

**Color Blind**

Color blindness is a widespread phenomenon. If you are having trouble seeing the dashboard, there are a number of free browser apps that can help with color adjustments.

If you use a Mac (and Safari as your browser), you have built-in accessibility tools to help you adjust color contrast.

**Keyboard Shortcuts**

The following table contains the keyboard shortcuts for the application.

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1 Gist is a useful service offered by Github, but Gist is not just for coders. Anyone can utilize the Gist service to write text anonymously without having to create an account at Github.

2 Color Enhancer for Google Chrome: [https://chrome.google.com/webstore/detail/color-enhancer/ipkjmjaedkapifldiqkgfmpekfnkhi](https://chrome.google.com/webstore/detail/color-enhancer/ipkjmjaedkapifldiqkgfmpekfnkhi)

Colorblind Design for Mozilla Firefox: [https://addons.mozilla.org/EN-us/firefox/addon/colorblind-design/](https://addons.mozilla.org/EN-us/firefox/addon/colorblind-design/)
<table>
<thead>
<tr>
<th>Action</th>
<th>Keyboard Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom in.</td>
<td>Ctrl/cmd + plus sign</td>
</tr>
<tr>
<td>Zoom out.</td>
<td>Ctrl/cmd + minus sign</td>
</tr>
<tr>
<td>Reset the zoom state.</td>
<td>Ctrl/cmd + 0</td>
</tr>
</tbody>
</table>

Navigating with a Keyboard

You can interact with panel controls using keystrokes on your keyboard. For example, use the TAB key to navigate to an edit field on a panel configuration tab and then use the alphanumeric keys to enter in your information. Once you have completed entering in your information, use the TAB key to leave the control.

Reporting Bugs and Requesting Enhancements

To report a bug you can send us a message with as exhaustive detail as possible to reproduce your problem. Please use our contact form (http://observatory.giponet.org/contact) but make sure that what you’re filing is a material issue with the platform.

The procedure for making an enhancement request (to add a missing feature) is nearly the same as the procedure for reporting a bug. Just mark your message as an “enhancement” in some part of it.