Scoping out the macroscopes: Defining and measuring success for a digital interactive
Lisel Record, Places & Spaces Exhibit, CNS, SOIC, Indiana University

Using Google Analytics to observe visitor behavior

Our goal was to look beyond how long visitors were spending at the kiosk, to see if they were engaging with the content and increasing their data visualization literacy.

Since the exhibit travels without staff, we have few opportunities to observe or interact with our visitors directly, but by setting the kiosk up as a website, we were able to use Google Analytics to observe visitor behavior anonymously. Many of the basic questions we had about how visitors use the kiosk could be answered through Google Analytics.

Event tracking

Event tracking helped us understand how users interact with the kiosk. We tagged particular events in order to track how often visitors performed certain actions:

<table>
<thead>
<tr>
<th>Event Category</th>
<th>Behavior Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macroscopes launched</td>
<td>how many times each individual macroscope is launched</td>
</tr>
<tr>
<td>Extended_info (selected the MORE INFO button)</td>
<td>how often additional information about a macroscope is accessed</td>
</tr>
<tr>
<td>Iteration selected</td>
<td>whether users navigate through an overview screen or go directly to individual macroscopes</td>
</tr>
<tr>
<td>Idle (screen activated)</td>
<td>how often the kiosk reverts to idle mode</td>
</tr>
</tbody>
</table>

Sankey diagram

How do visitors flow through the site?

It can be instructive to see how users flow through your site. We were glad to see that visitors are visiting multiple macroscopes and that they generally enter and exit at the home page. This helps us create more accurate visitor journey maps or use cases for future versions of the kiosk.

Segmenting the data

| Location (found under Audience > Geo > Location) and browser type (found under Audience > Technology > Browser & OS) | help us separate visitor behavior by demo behavior and testing behavior. Since we know where the kiosk is and what browser it uses, we can identify site traffic from a particular exhibit installation and filter out other use.

Data range and location help us identify specific installations of a traveling exhibit so we can compare how visitors behaved at different sites.

Refining the kiosk

Using data-driven decision making to build a better exhibit

We use quick visitor surveys to help us refine the kiosk interface and help us better understand the behavior we see in Google Analytics. Collecting data to do so our decision-making process keeps us focused on the needs of the visitor and helps our diverse exhibit team come to consensus more quickly.

Surveying a proxy audience

Question: Which tagline to use?

The exhibit team came to an impasse choosing taglines for each macroscope. We had multiple options, strong opinions, and no consensus.

Solution: We asked our target audience.

Everyone on the exhibit team suggested one tagline for each macroscope, with the requirement that the taglines accurately conveyed the content. Then we asked college students at Indiana University’s main library to pick their favorite version of each tagline. We used the taglines with the highest votes.

Using paper mockups to prototype changes

Observation from Google Analytics: During a 3 month installation, visitors selected the MORE INFO button on the kiosk only 50% of the time.

Question: Are they not interested or are they unable to find it?

We created paper mockups of two versions of the interface: one showing a pop-up window with the additional information and one without the extra information. We asked people which version they would prefer to see when they selected a macroscope and why. We also used a paper mockup to ask people where they would look for more information on the old interface. To see if they could find the MORE INFO button.

Results: Users wanted additional information, but couldn’t find it.

Event tracking with a redesigned MORE INFO button shows that users are now clicking the MORE INFO button 53% of the time.

We know what we are doing, but what are they thinking?

Question: Are visitors getting the main idea that data visualization helps people make sense of data?

We conducted a small self-administered survey with visitors after they interacted with the kiosk during a user testing session at a nearby science center. The sample size was too small to draw conclusions, but preliminary results suggest that people view each macroscope as an individual experience, rather than viewing the experience of the kiosk as a whole. We look forward to conducting this survey with more visitors in the future.

References


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