We Started a Library Analytics Program. You'll Never Believe What Happens Next.

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We Started a Library Analytics Program. You’ll Never Believe What Happens Next.

Ken Varnum
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University of Michigan Library
Overview

1. Campus Context
2. Privacy Policy
3. Implications and Initiatives
4. Next Steps
University of Michigan Campus Context

68 Initiatives

Learning Experiences should be
Personalized, Engaged and Lifelong

5,162,883 Learners

Academic Innovation partnerships are
Individualized, Creative and Collaborative

Shape the Future, Innovate Now
Library’s Previous Statement on Privacy

• Prevented collection of nearly all data

• Required the deletion of any transaction data once the transaction was complete

• Made it hard for us to...
  • Provide good service in a virtual environment
  • Know how changes we made, or planned to make, effected usage
  • Understand our users well
Updated Privacy Statement

• Policy

The University of Michigan Library may collect some data about your library use in order to improve services and to integrate with broader University teaching and learning initiatives.

• Commitment to Privacy and Confidentiality

We are committed to protecting the privacy and confidentiality of all patron data in compliance with federal and state laws, university policy, and professional standards (e.g. American Library Association).

Library data is considered an institutional asset and may be accessed and used only by authorized university entities according to procedures identified by the University. No person or entity may access library data, except through strict policy and processes established by the University and in compliance with Michigan law.
Understanding the Library’s Needs

https://static.pexels.com/photos/5106/forest-trees-fog-foggy.jpg
Next Steps (A Work in Progress)

- Infrastructure
- Data pipelines
- Baseline Data
- Collaboration with Librarians & Campus Researchers
## Proposed Core Data Elements

<table>
<thead>
<tr>
<th>Data Sources</th>
<th>Web Site Server Logs</th>
<th>Mirlyn Server Logs</th>
<th>Proxy Server Logs</th>
<th>Circulation History and Related Data</th>
<th>Campus status &amp; affiliation data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Attributes</strong></td>
<td>timestamp</td>
<td>timestamp</td>
<td>timestamp</td>
<td>timestamp</td>
<td>uniqname</td>
</tr>
<tr>
<td><strong>uniqname</strong></td>
<td>uniqname</td>
<td>uniqname</td>
<td>uniqname</td>
<td>uniqname</td>
<td>uniqname</td>
</tr>
<tr>
<td><strong>event/action type</strong></td>
<td>(search, display details, external link, etc.)</td>
<td>(search, display details, get this, external link, etc.)</td>
<td>event/action type</td>
<td>event/action type (charge, discharge, renew, hold, recall, overdue sent, library-to-library delivery, etc.)</td>
<td>user category (undergrad, grad, faculty, staff, sponsored, etc.)</td>
</tr>
<tr>
<td><strong>Database/Packag...</strong></td>
<td>Aleph resource IDs (barcode, bibliographic record number, etc.)</td>
<td>Resource identifier</td>
<td>Aleph resource IDs (barcode, bibliographic record number, etc.)</td>
<td>user department</td>
<td></td>
</tr>
<tr>
<td><strong>Search string (...</strong></td>
<td>Search string (when event is a search)</td>
<td>Search results</td>
<td>Result (success or dead end?)</td>
<td>additional user demographics</td>
<td></td>
</tr>
<tr>
<td><strong>Search results</strong></td>
<td>Search results</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Referrer string</strong></td>
<td>Referrer string</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Target</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Colors represent potential linking points to connect data from different sources. Note that some connections (e.g., uniqname) are relatively strong and unambiguous while other (e.g., timestamp, referrer, and target strings) may be circumstantially related, but we rely on inference when postulating a relationship as a user session or path between multiple systems.
Initial Work

- Infrastructure in place
  - ElasticSearch
  - Kibana
- Practicing on a range of System Admin data
  - Uptime, reports, logged items
  - Moving to web-based interfaces soon
New link resolver launched in October 2016

User Information
- Uniqname
- Access location
  - On/Off campus
  - Proxied
- State/Country
- Academic status
- School / College
- User Agent (browser, OS)

Document Information
- OpenURL or IEDL
- Raw OpenURL
- OpenURL SID
- ISSN / eISBN
- Link(s) on the Umlaut screen the user clicks
- Bounces
- Was there full text
- Target vendor/platform
- Referring URL
Next Steps

- Continuing pilot this fall
- Assess pilot
- Share with the library & campus
- Assess data collection & identify changes
- Repeat
Thank You!

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