Collection Analysis with Tableau

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UNIVERSITY LIBRARIES
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COLORADO ALLIANCE OF RESEARCH LIBRARIES
LIBRARY ASSESSMENT WORKSHOP
NOVEMBER 17, 2016
Collection Analysis-Challenges

• Collecting and combining various data sources
  ◦ Integrated Library System (ILS) (.txt, .xls API, SQL)
    ◦ Circulation statistics
    ◦ Expenditures
    ◦ Fund codes
    ◦ COUNTER usage reports (.xls)
    ◦ Impact Factors (.xlsx)
      ◦ Journal Citation Reports, Scimago (.txt, .xls)
    ◦ Collections Budget (.xls)
    ◦ INN-Reach data
    ◦ Interlibrary Loan Data

• Presenting quantitative data in a format that is easily understood

• Publishing data and findings; making data and analyses more accessible
<table>
<thead>
<tr>
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<th>FORMAT</th>
<th>Rec NO.</th>
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<th>Sub. per</th>
<th>Paid FY13</th>
<th>Sub. per</th>
<th>Last Paid</th>
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</table>
What is Data **Visualization**?

- Visual representation of abstract data to help:
  - Explore: Identify trends and patterns in data
  - Explain: Understand complex data more easily
Tableau
Software-Data Visualization
## Excel v. Tableau?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Excel</th>
<th>Tableau</th>
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</thead>
<tbody>
<tr>
<td>Combine multiple data sets</td>
<td>Manually or using a formula like VLOOKUP</td>
<td>Link and create relationships between data sources</td>
</tr>
<tr>
<td>Updating data</td>
<td>New version needs to be manually uploaded</td>
<td>Data sources can be refreshed</td>
</tr>
<tr>
<td>Filters, Slicers, Sort</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Graphs, charts</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Publishing/Distribution</td>
<td>Static, interactive spreadsheets</td>
<td>Dynamic, interactive online dashboards</td>
</tr>
</tbody>
</table>
Tableau Software — Connecting Data

Integrate and analyze various data sources:

- Excel spreadsheets from Elements (faculty publication data)
- Excel spreadsheets containing library holdings (ILS data)
- Better yet, connect directly to ILS data using PostgreSQL database (Sierra DNA)
- Excel spreadsheets exported from citation databases such as Web of Science or Scopus
Tableau Dashboards for Collection Analysis

- Most Cited Journals by Journal Title
- Most Cited Journals by Department
- Journals with most articles by CU authors
- Top Publishers for books and journals
- Books by CU authors
  - Group by academic department
  - Group by subject librarian
- Journals with high use, zero use
- Circulation of approval v. firm ordered books
Tableau Dashboards for Collection Analysis

• Collections Budget
  • Track expenditures by fund, subject, format, resource type

• Collection Statistics
  • Track collection growth
  • Analyze usage statistics
    • Rate the performance of books within LC ranges, by publisher, age
    • EXZ Proxy and COUNTER reports for e-resource usage

• INN-Reach and Interlibrary Loan Data
  • What are we borrowing?
  • In which areas are we borrowing more than we are purchasing?
  • Does this indicate a gap in our collection?
Next Steps - Measuring our Impact

• Combining collections data with different types of library data
  • Reference Questions
  • Gate Counts

Partnering and sharing data with others on campus:
  ◦ Faculty Affairs
    ◦ access to faculty information system and Elements gives us a list of all of our faculty’s publications, courses taught
  ◦ Institutional Research
    ◦ Connect to demographic data about our users, particularly students to connect student success with use of library resources
Questions?

Thank you!

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