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Visualizing Library Data

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Visualizing Library Data with Tableau

Nicole Colello & Jennifer Murray
What is Tableau?

Tableau is easy-to-use business intelligence software used for data analysis, providing visual tools to help you see and understand your data.
Why Tableau?

• Started with the Discovery and Delivery Assessment team

• Have many systems that don’t talk to each other

• Numerous statistics kept by numerous staff using numerous tools

• Tool to easily connect, view and blend data elements → Tableau!

• Other libraries using Tableau:
  • University of British Columbia Library
  • UMass Amherst Libraries
  • Ohio State University Libraries

• Libraries Innovation Fund allowed us to purchase 2 desktop licenses
Benefits of using Tableau

• Informed decision making
  • Drive improvement of services
  • Create workflow efficiencies
  • Aid in direction of future services

• Connect to a wide variety of data sources (Access, Excel, MS SQL, Oracle...)

• Visualize your data - tell a story

• Interact with your data

• Easy to learn and use
Challenges of using Tableau

• Data often comes from many different sources

• Need tools to cleanup and blend the data before using Tableau
  • Time consuming
  • Determining the right tools to use isn’t always easy

• Keeping data up to date
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Tableau Report: Print Circulation Events – 5 years
Room Bookings, 2013-2014

The chart shows the number of room bookings for various libraries and buildings from July 2013 to June 2014. The libraries and buildings are differentiated by color and include Health Sciences, Dief, Room 9, and others. The table below the chart provides the exact number of bookings for each month for each location.
Data Visualization process example

Library Services Data & Institutional Data

- Extract loan data out of Aleph (Run SQL reports on server)
- Extract patron data out of Aleph (Run SQL reports on server)
- Extract Doc Del data out of ILLiad and format (Excel spreadsheets)

Format in Excel

Create tables (from Excel spreadsheets) in Access database that is connected to student data (Student data is an Oracle database accessed via Access)

Create tables and queries to combine data as needed

Combine needed queries in Excel

Connect Excel spreadsheet to Tableau

Create Tableau reports to visualize the data
Demo

• Tableau Public
  • https://public.tableausoftware.com/profile/ub.libraries#!/

• Circulation Events
  • Source: Aleph SQL report (.txt file) → Tableau

• Library Services Data & Institutional Data
  • Average GPA of students who have used Aleph and/or ILLiad
  • Who is using and not using our services (Aleph and/or ILLiad)
  • Source: Aleph SQL reports, Excel spreadsheets, Access database

• Borrowing and Doc Del for e-delivered materials
  • Source: Access database
Next Steps

• Combine data from multiple systems within the Libraries
  • How and what faculty, staff and students are using

• Combine Library data with UB systems such as InfoSource
  • Our value to the institution
  • What impact library usage has on retention and academic success

• Explore how else we might benefit from Tableau
  • Analyze operations, costs, quality, and impact of services
  • What questions are we trying to answer?

• Goal to use Tableau across the UB Library units
THANK YOU!

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