Visualizing Library Data

Nicole Colello & Jennifer Murray
University at Buffalo
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...)
- Easy to learn and use
- Use drag and drop tools to visualize data and create interactive dashboards → tell a story
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
# Aleph Report: Print Circulation Events

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Tableau Report: Print Circulation Events – 5 years

Delivery started in August 2012
Borrowed Materials started in 2010

Event Types:
- Borrowed Material Loans
- Delivery Requests
- Lending Requests
- Loans
- Recalls
- Renewals
- Returns
- Selfchecks
Data Visualization process example

1. Extract loan data out of Aleph (Run SQL reports on server)
2. Extract patron data out of Aleph (Run SQL reports on server)
3. Extract Doc Del data out of ILLiad and format (Excel spreadsheets)
4. Format in Excel
5. Create tables (from Excel spreadsheets) in Access database that is connected to student data (Student data is an Oracle database accessed via Access)
6. Create tables and queries to combine data as needed
7. Combine needed queries in Excel
8. Connect Excel spreadsheet to Tableau
9. Create Tableau reports to visualize the data
Tableau Reports

- Library Services Data & Institutional Data
  - Average GPA of students who have used and not used Aleph/ILLiad
  - Who is using and not using Aleph/ILLiad
    - Helps us see what impact library services have on student success
    - Helps us identify who isn’t using our services - increase promoting libraries to these students, investigate why they are not using our services
    - Source: Aleph SQL reports, Excel spreadsheets, Access database

- Circulation Events
  - Shows activity by time and peak times when most work is occurring for all libraries and by each library. Helpful in determining staffing needs.
  - Source: Aleph SQL report (.txt file) → Tableau
Tableau Reports continued...

• ILLiad Delivery Services analysis
  • Shows trends in Borrowing, Document Delivery and Lending services
    • Are services improving, declining or consistent?
    • Are requests being processed in accordance to policies?
    • Are there ways to improve services/processes?
  • Source: ILLiad (via Access/ODBC link)

• Delivery+ (Borrowing and Document Delivery) Services - Trends Analysis
  • Shows requests by UB Patron Status, Faculty Departments, and Processing Units
    • Are services being used? By whom?
    • Which Processing Units have the highest workload for Document Delivery?
  • Source: ILLiad (via Access/ODBC link) and Excel
Tableau Reports - Demo

- Staffweb (UB library staff access only)

- Tableau Public

Next Steps

- Continue to combine data from multiple systems within the Libraries
  - How and what faculty, staff and students are using
- Continue to 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!

Nicole Colello (ncolello@buffalo.edu)
Jennifer Murray (jlmurray@buffalo.edu)