VISUALIZING LIBRARY DATA

SLA Division of Pharmaceutical and Health Technology Spring Meeting

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North Carolina State University Libraries

April 12, 2011
LIBRARIES MEASURE A LOT OF THINGS
Why do we measure these things?

- Value for money or time
- Use of collections and services
- Demonstrate worth and fit
- Support decision-making
- Better user experiences
- Align with organizational goals
GOALS FOR PRESENTING LIBRARY DATA

- Impactful
- Drive home our point quickly
- Lingering impact
- Easy to digest
Quick Poll

What is your primary spreadsheet and graph/chart making tool?

Flickr: ganzalo_ar
Minimize "Non-Data" Ink

What do you find distracting?

What makes it harder to interpret?
SEQUENCE THE DATA

Before

FY2009 - 10 Expenses

- Salaries & benefits: 37%
- Building related costs: 13%
- Non-capitalized Equipment & Collections: 22%
- Depreciation: 12%
- Other expenses: 9%
- Library development: 2%
- Postage & supplies: 1%
- Computer expenses: 3%
- Printing & copying: 1%

Salaries & Benefits: $3,569,344
Building Related Costs: $1,241,020
Printing & Copying: $45,158
Computer Expenses: $315,203
Postage & Supplies: $77,644
Library Development: $172,289
Other Expenses: $877,199
Non-Capitalized Equipment & Collections: $2,104,687
Depreciation: $1,171,766
Total: $9,574,310
2009-2010 Expenditures

- Salaries & Benefits: $3,569,344
- Collections: $2,104,687
- Building Costs: $1,241,020
- Depreciation: $1,171,766
- Other: $877,199
- Computer Equipment: $315,203
- Library Development: $172,289
- Postage & Supplies: $77,644
- Printing & Copying: $45,158
What makes it hard to read these charts?

What time period does this data cover?

What are the units of measure?
BE STRAIGHTFORWARD

Before

Ownership of Handheld Mobile Device

Mobile Device Survey for Yale School of Medicine 2011 (n=52)
Ownership of Handheld Medical Devices
Yale School of Medicine (2011)

- iPod Touch: 25
- iPhone: 11
- Palm: 7
- Android: 4
- No Device: 3
- Blackberry: 3

Number of devices owned
DE-CLUTTER EXCEL

- Remove those grid lines
- No 3-D bars
- Throw away the pie chart
- Label your axes
- Remember the units
- Order the data
- What’s your point?
- Don’t overwhelm
- Choose the best graph/table for your data
- Excel Chart Templates

Flickr: smemon87
DATA VISUALIZATION TOOLS

- Microsoft Excel
- Google Gadgets
- ManyEyes
- Tableau Public
- Swivel – defunct
- Information Dashboards

Flickr: JanneM
# Google Gadgets

## Charts

<table>
<thead>
<tr>
<th>Chart Type</th>
<th>Description</th>
<th>Add to spreadsheet</th>
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<td>Bar Chart</td>
<td>By Google, Bar Chart using Google Charts API</td>
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<td>Area Chart</td>
<td>By Google, Area chart using Google Charts API</td>
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<tr>
<td>Line Chart</td>
<td>By Google, Interactive line chart, each numeric column is a line.</td>
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<td>Pie Chart</td>
<td>By Google, Interactive pie chart, each value is displayed as a slice.</td>
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## Google Docs

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GOOGLE GADGETS
Earthquakes in Japan Since 1900

Peter Aldhous takes us back in time with this viz of Japanese Earthquakes since 1900. Obviously, the island nation is no stranger to seismic activity.
Excel’s defaults don’t do the data justice
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**Cumulative Cost per Use - JSTOR Journal Backfiles**

Cost per Use:
- $0.20
- $0.40
- $0.60
- $0.80
- $1.00
- $1.20
- $1.40
- $1.60
- $1.80
- $2.00
- $2.20
- $2.40
- $2.60
Sources for inspiration

FlowingData  http://flowingdata.com/


Visual Complexity  http://www.visualcomplexity.com/vc/

Gapminder  http://www.gapminder.org/
CREDITS

- Beautiful Data (Segaran & Hammerbacher, 2009)
- Show me the Numbers (Few, 2004)
- Now you see it (Few, 2009)
- Lisa Kurt and Will Kurt, University of Nevada Reno
- Edward Tufte
- Cory Lown (http://www.slideshare.net/corylown/data-visualization-7522083)

Thanks!

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http://www.visualcv.com/hilarymdavis