Wrangling the Megalith:

Mapping the Data Ecosystem of the Harvard Library

Mark E. Shelton, MLS, Ed.D. Assessment Librarian Harvard Library

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- Relationships
- Time Travel
- Defining the word "The"
- The Human Brain
- The libraries at Harvard University

It's Complicated

- 73 Libraries employing 931 staff across 12 schools, Radcliffe, and the Harvard Library
- Each one offers different services, open different hours, and supports different citation tools
- Over 20 million volumes, 14.5 million titles, 400 million manuscripts, 2 million photographs, 180,000 serials, over 175 TB of digital files
- And we spend over \$120 million dollars

If you do not believe me

- Student Tuition Dollars pay for us
- If it is complicated to us, how complicated is it to those who use the library?
- Others benchmark against us
- Do we really know what we are getting for our time, staff, money, effort?
- We claim we are out to achieve certain things
- Our worth is more than just vanity numbers

So why do we care?

- We have to figure out who we really are
-figure out where we are
-link where we are to where we want to go
-decide our story is more than just one-dimensional
-decide our story has bigger implications
 - our students, our faculty's, our own success
-map our own data, link it together, and link it to what we claim is our values, motivations, purpose

So what do we do?

- Data comes in many forms
- It comes from many sources
- It can be looked at in many different ways
- It is more than just the standard stuff
- We have to think beyond the silos
- The data is linked, we have to follow the path

Examining the data ecosystem

- If we are going to pull it all together.....
- We have to think about those linkages....
- Where do you see them??
- Mapping the data is a TAXONOMY problem!!

A mapping model

- Model is the result of...
 - Examining all the sources of data
 - Attending meetings where assessment is a topic
 - Talking to the people gathering their own data
 - Reporting ARL Statistics, IPEDS, ACRL
 - Gathering data from ITHAKA, MISO, COFHE, internal surveys, etc.
 - Responding to lots and lots and lots of questions

How did I get here

Collection

Object

Library

Loot (aka - Finances)

Activity

People

Systems

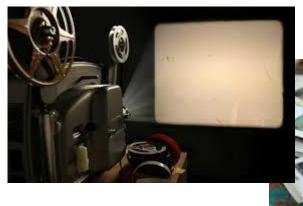
Events

COLLAPSE

- Archives and Special Collections portal lists 59 different digital collections
- Many of the physical libraries house a variety of different collections
- We have collections within collections!!!
- Some collections represent content located at multiple locations, physical and digital
- Harvard has 1,364 defined circulation collections

Collection

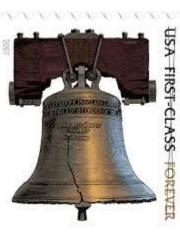








Object



Physical places -

associated with schools, rooms, carrels

113 circulation locations

Digital places -



Library

- Budget
 - Projected
 - Real
 - Strategic Alignment
- Revenue
 - Sources
- Expenditures
 - To whom
 - How much
 - What for





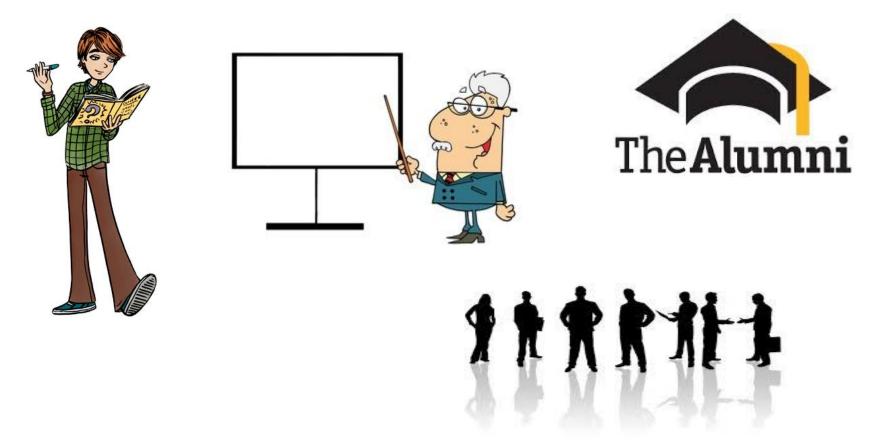
Loot (Finances)

- Reference
- Instruction
- Acquisitions
- Cataloging
- Research
- Learning
- Digitization
- Fund Raising
- Programs
- Communication
- Many others!!!



Not just on the part of librarians, but also those of our patrons

Activity



Harvard has 78 different borrower types, and 53 different borrower statuses

Person

- Internal Systems
 - ALEPH/HOLLIS, DASH, DRS, PDS, OASIS, VIA, SFX, VERDE
- External Systems
 - All that digital content (ebooks, journals, databases, etc.)
 - Citation tools
 - Collaboration tools (ILL, Borrow Direct, etc.)
 - Content acquisition (EBSCOHost, Gobi, etc.)

Systems

- Reference Transaction
- Circulation Transaction
- Turnstile
- Re-shelf
- Article Download
- Instruction Session
- Web view
- Twitter post
- Book Purchase



Event

- COLLAPSE represents the top level
- Each one of the categories has to be broken down further.
- Consider a turnstile

							WEEK	DAY			
						MONT	OF	OF			
	PID	TURNSTILE	DATETIME	DATE	YEAR	Н	YEAR	WEEK	HOUR	LIBRARY	Count
		Wdnr Mass	Sep 1, 2015 1:33:17								
219	412	Turnstile (mag)	AM	Sep 1, 2015	2,015	9	36	2	1	Widener	1

Or MARC record for an object

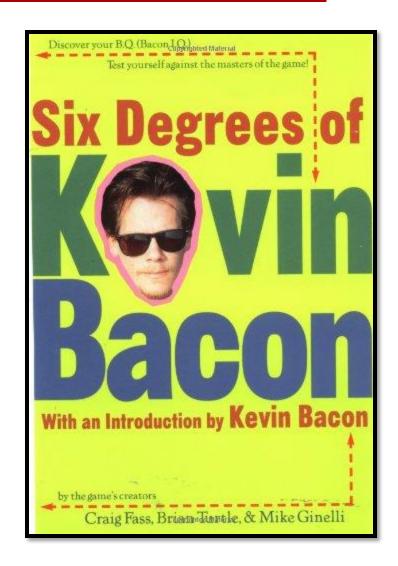
The next level

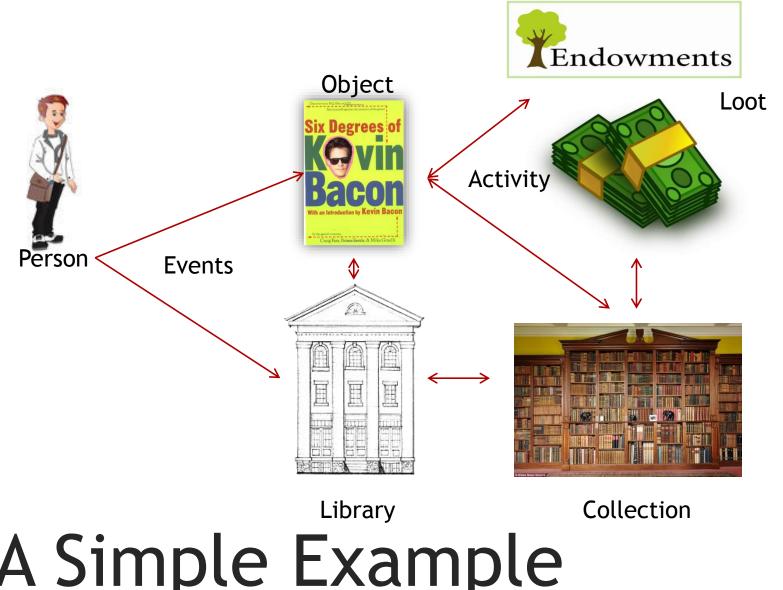
- The source of the data
- The format of the data
- Method of extracting the data
- What fields are the linkage points?

Next Level cont.

- From the model, we should be able to fully link up all of our data (or at least a vast majority of it)
- There is six degrees (or more) of separation between points.
- This allows us to explore the data from a variety of angles

Kevin Bacon





A Simple Example

- How many students from XY school use books purchased with endowment AB?
- Will posting an article about the BIG BOOK collection increase the number of circulations to grad students or increase the number of reshelving?

And we can answer questions like...

Harvard Library hasFIVE Strategic Objectives and TEN Strategic Priorities

Current University Capital Campaign has SEVEN Aspirations

Each school has its own mission, vision, and strategic priorities

We can link ourselves to ...

- Decide on a tool that will allow us to interact with and visualize the data
- Determine where the data will be stored
- Ingest and link the data according to the model
- Build the dashboard one public, one private based on the model
- Do the work to get other (secure/private/restricted)
 data like student data connected to our data

Where are we and where do we go from here?

- Can you see this model being applied to your institution?
- What are your areas that may be much less complicated than ours.
- What are your examples that show the linkages?

Your Institution

