

# *Visualization in the Library & Professional Practice*

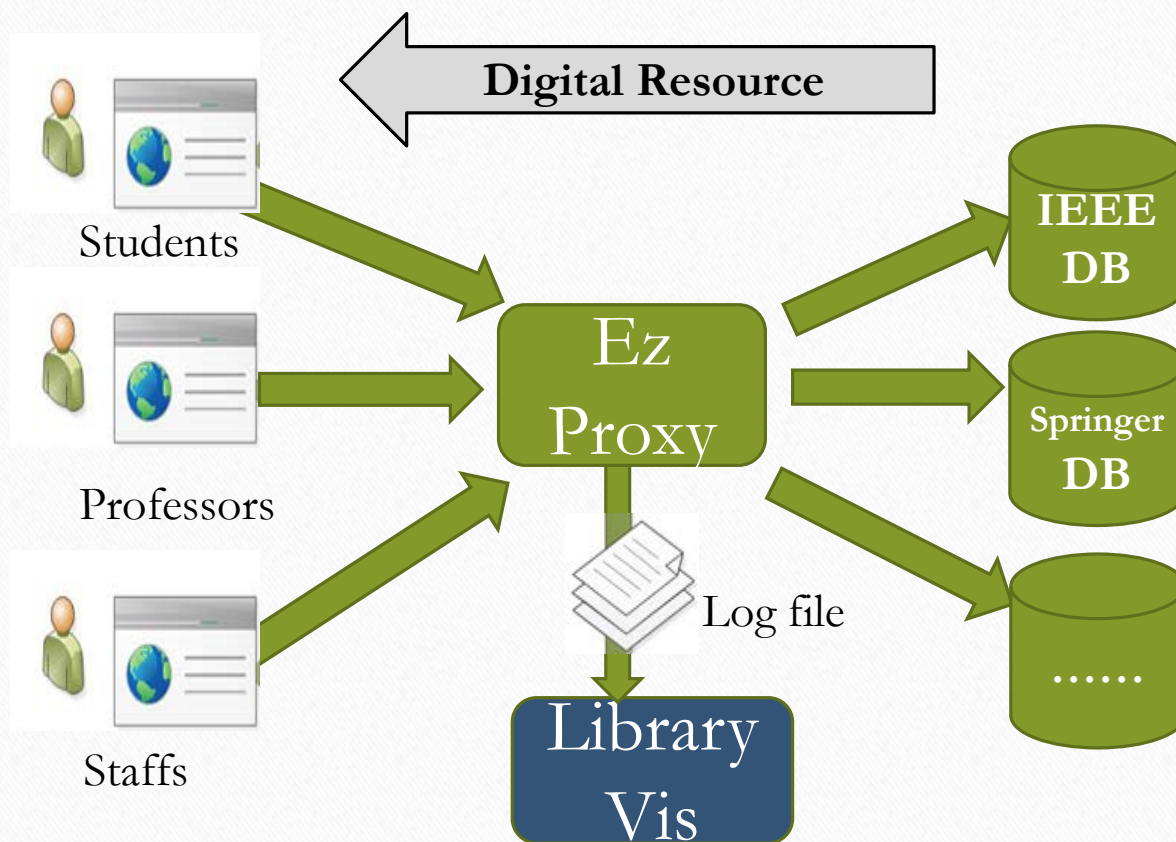
# *Outreach Examples*

- Through a course
- To support research
- With community

# *Software Engineering 615*

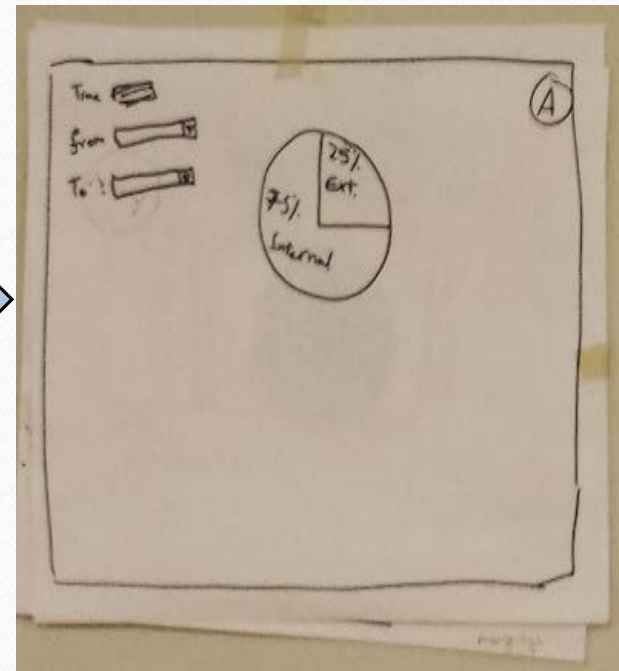
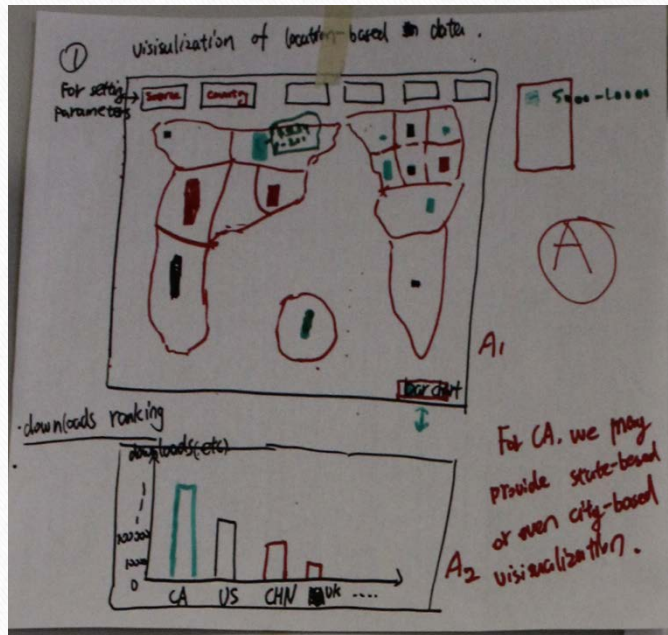


# Understanding Resource Usage



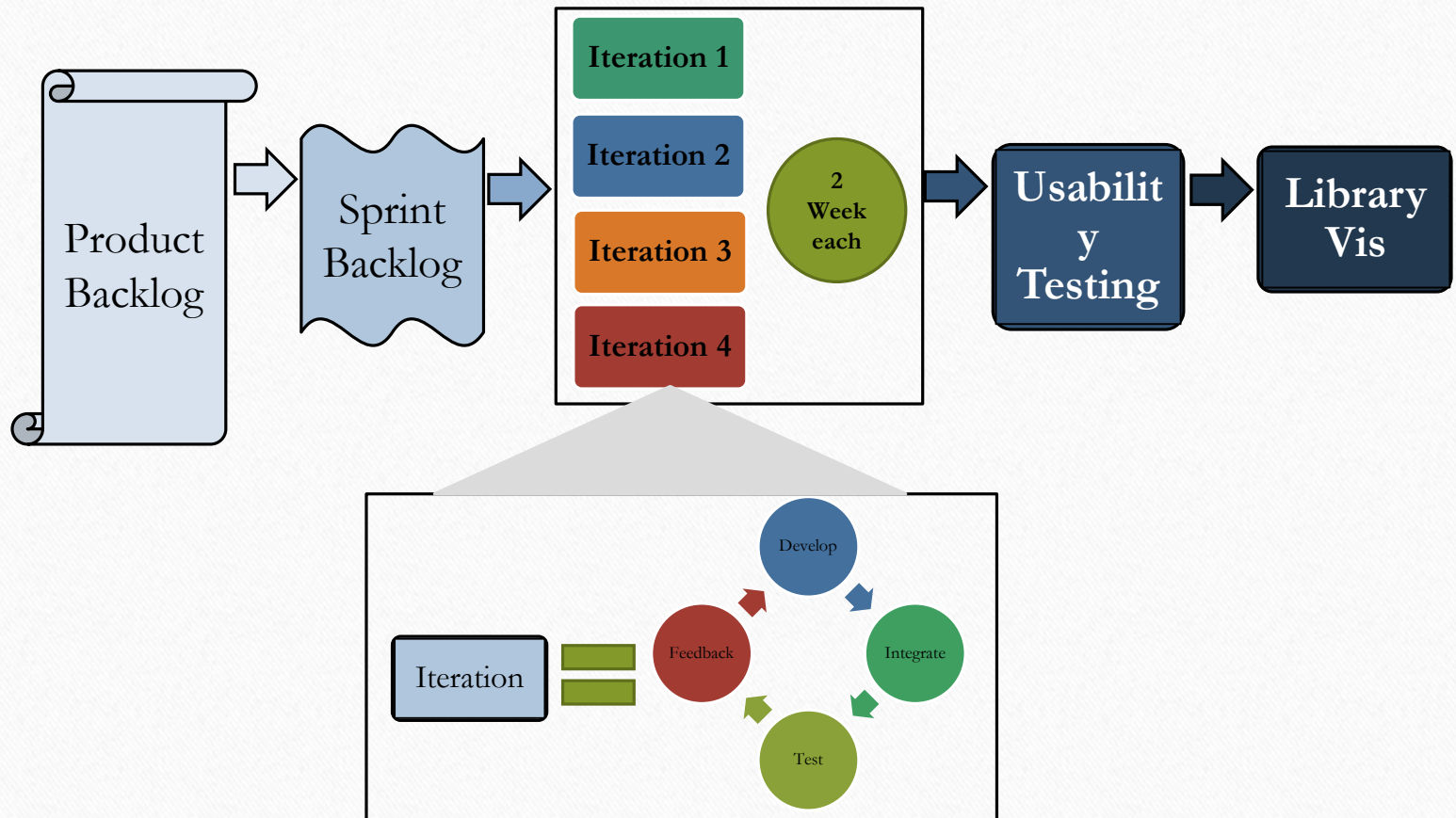
# Paper Prototypes

## Use simple visualization instead of complex





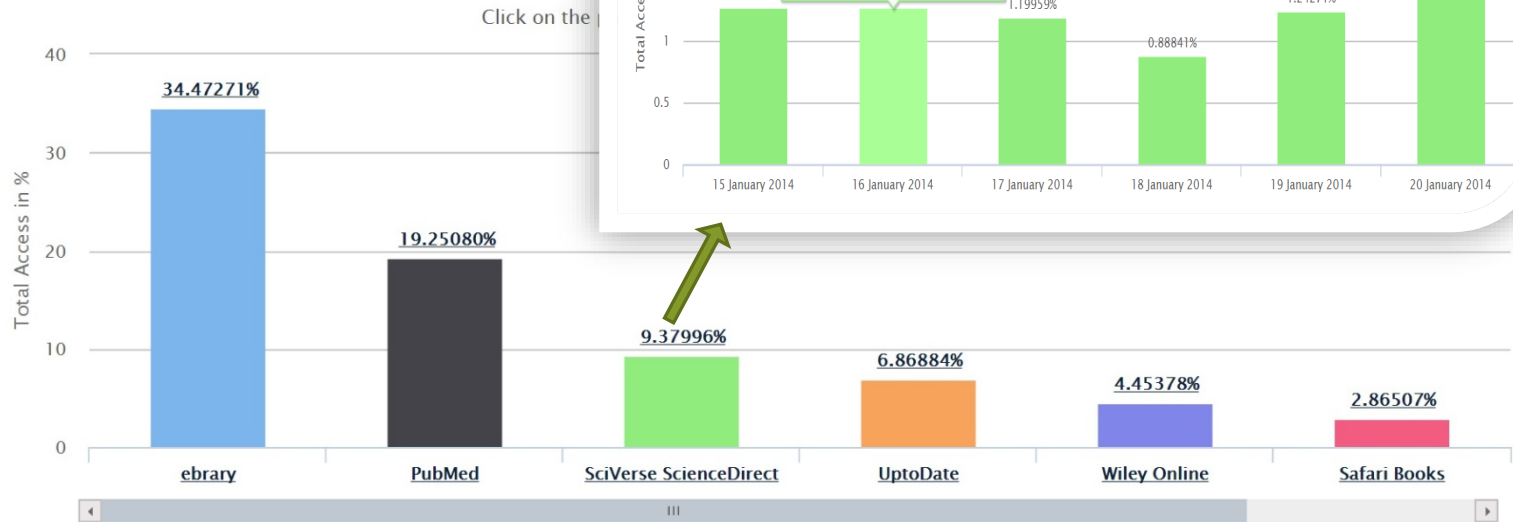
# Development Cycle



# Popularity Analytics

## Pick Your Time

From:  To:



## List of Unused Resources

DataBase Name:

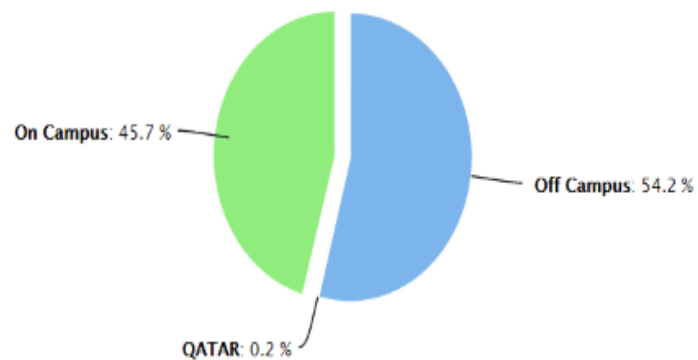
ArchiveGrid  
AccessEmergency Medicine  
Encyclopedia of Global Change  
Asia Pacific journal of environmental law  
Endocrinology Journals  
American Statistical Association journals

# Location Analytics

Pick Your Time

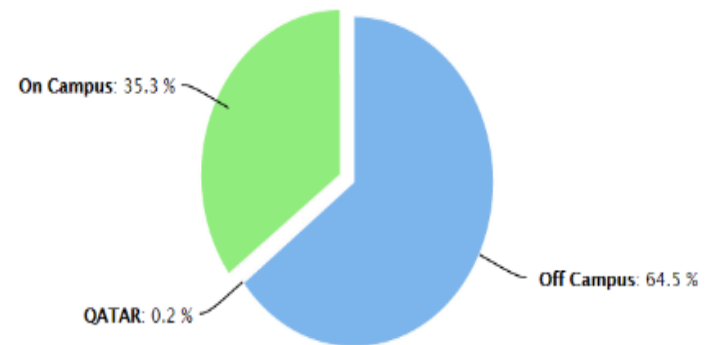
From:  To:

01/01/2014 - 01/15/2014



Highcharts.com

01/16/2014 - 01/31/2014



Highcharts.com



# Time Analytics

From: 12/01/2013

To: 01/22/2014

Daily ☒ Monthly ☐ Yearly ☐

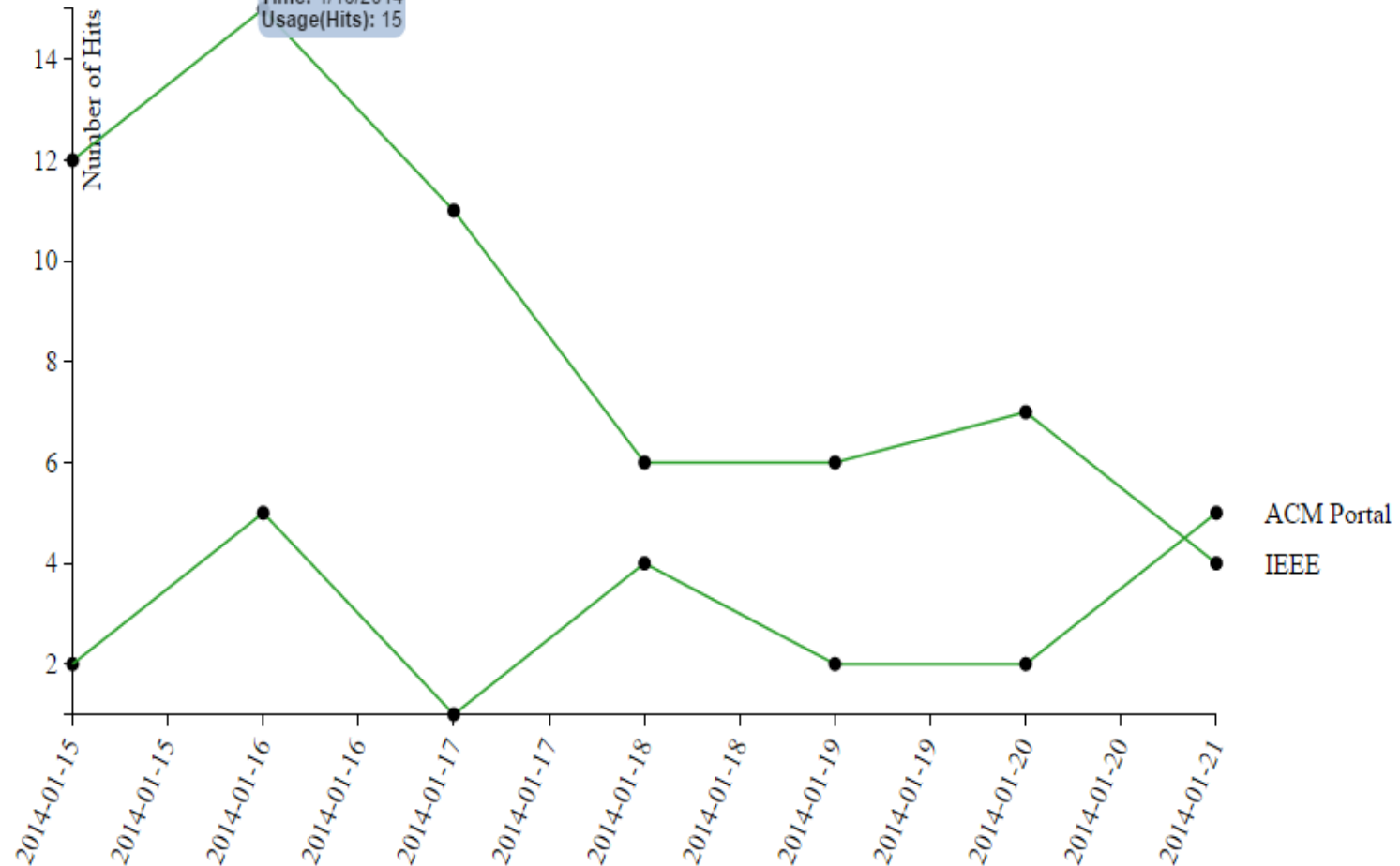
Add:

add

Remove: IEEE

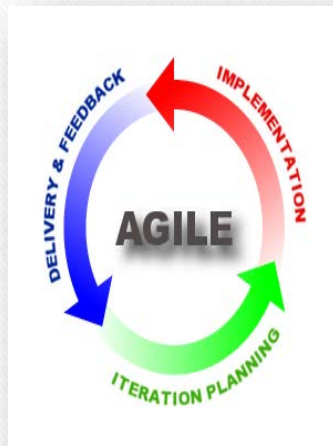
Remove

Database: IEEE  
Time: 1/16/2014  
Usage(Hits): 15

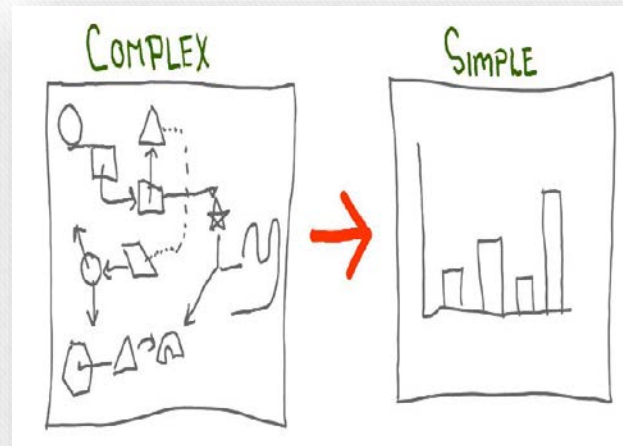


# Findings

Approach



Design



Target Users



# Summary

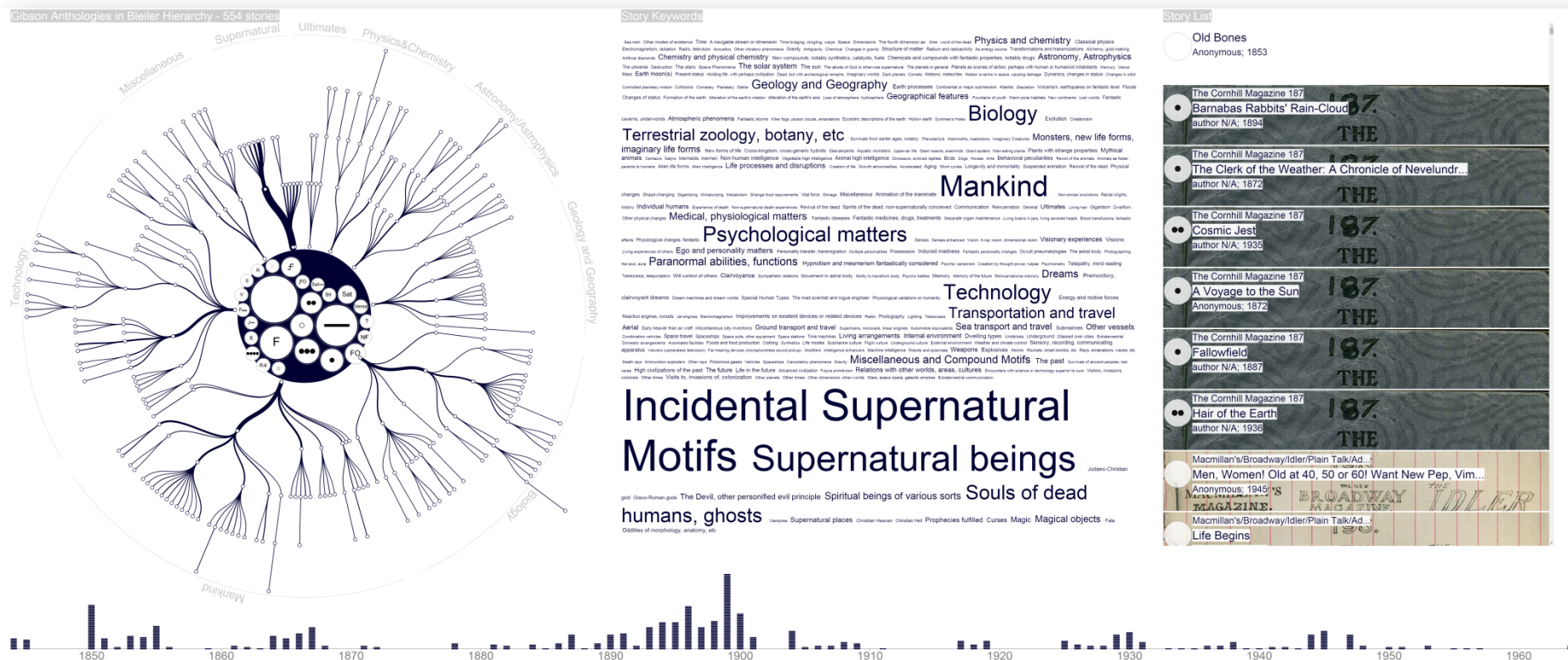
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- **Problem:** Librarians understanding resource usage
- **Solution:** Adopted agile techniques to develop LibraryVis
- **Evaluation:** Conducted user study with target users
- **Findings:**
  - *Approach:* Agile development help in designing visualization system quickly and effectively
  - *Design:* Simple visualization were effective for solving problem
  - *Evaluation:* Real user is effective way of testing system



# To Support Research

## Stefania Forlini, Uta Hinrichs, & Bridget Moynihan's Gibson Collection Visualization





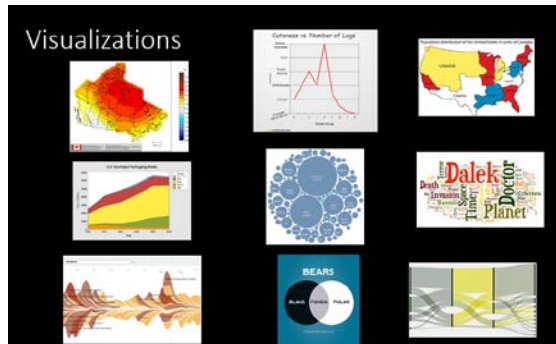
# *To Support Research*

Stefania Forlini, Uta Hinrichs, & Bridget Moynihan's  
Gibson Collection Visualization

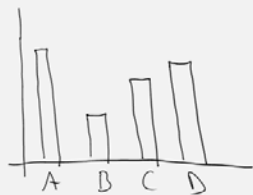
We can help with:

- Data
  - From the collection
    - To augment other data
  - Clean up, quality check, store, host, convert formats
  - Tie into digitization, spatial & numeric data services
- Venue for feedback/testing
  - Visualization studio is a unique venue

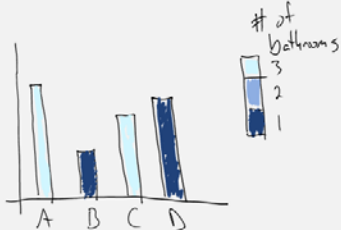
# Public Outreach



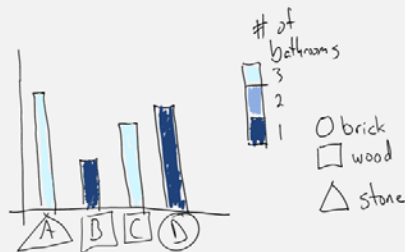
House Size



House Size & Number of Bathrooms



House Size, Number of Bathrooms, & Material



Anim	# of Legs	carnivore, omnivore, or herbivore	Warm Blooded	Environment	Lives In	Temperature (°F)	Hibernates	Weight (lb)
dog	4	O	Yes	mouse, spider, ant, worm, squirrel, plants	ground	39.2	No	35
house cat	4	C	Yes	mouse, robin, squirrel, spider, ant	ground	38.6	No	3.7
robin	2	O	Yes	worm, spider, plants	air	40	No	0.077
beaver	4	H	Yes	plants	water	32-38	Yes	20
mouse	4	O	Yes	ant, spider, plants	ground	38.1	No	0.02
butterfly	6	H	Yes	plants	air	30	No	0.0003
ant	6	O	No	plants, worm	ground	10-46	No	0.000005
spider	8	C	No	ant, butterfly	ground	1.8-39	No	0.0005
worm	0	H	No	plants	underground	0-35	No	0.09
bear	4	O	Yes	ant, spider, mouse, plants	ground	31-38	Yes	320
squirrel	4	H	Yes	plants	ground	32-37	No	0.75
moose	4	H	Yes	plants	ground	38	No	365
garter snake	0	C	No	mouse, squirrel	ground	22-32	No	0.15



# *Public Outreach*



## Data for Good

- Pairs data experts with high impact social organizations.
- Collaborative approach that leads to shared insights, greater understanding, and positive action.
- Data in the service of humanity.
- Datathons

## Worked with:

- Sustainable Alberta Association (Commuter Challenge)
- Calgary Distress Centre

<http://www.meetup.com/DataforGood/>

# Public Outreach



## Distress Centre Datathon

- 10 years of call logs, 2 million calls, 2GB
- Questions:
  - Does call content change depending on time of day?
  - What types of issues are most successful at stabilizing or reducing in risk?
  - Are there correlations between our data and public data sets, such as deaths by suicide in Alberta and weather records?
- 50 volunteers from industry & academia
- <http://www.distresscentre.com/News/2015/06/11/data-for-good-calgary-captures-ten-years-of-distress-centre-data/>





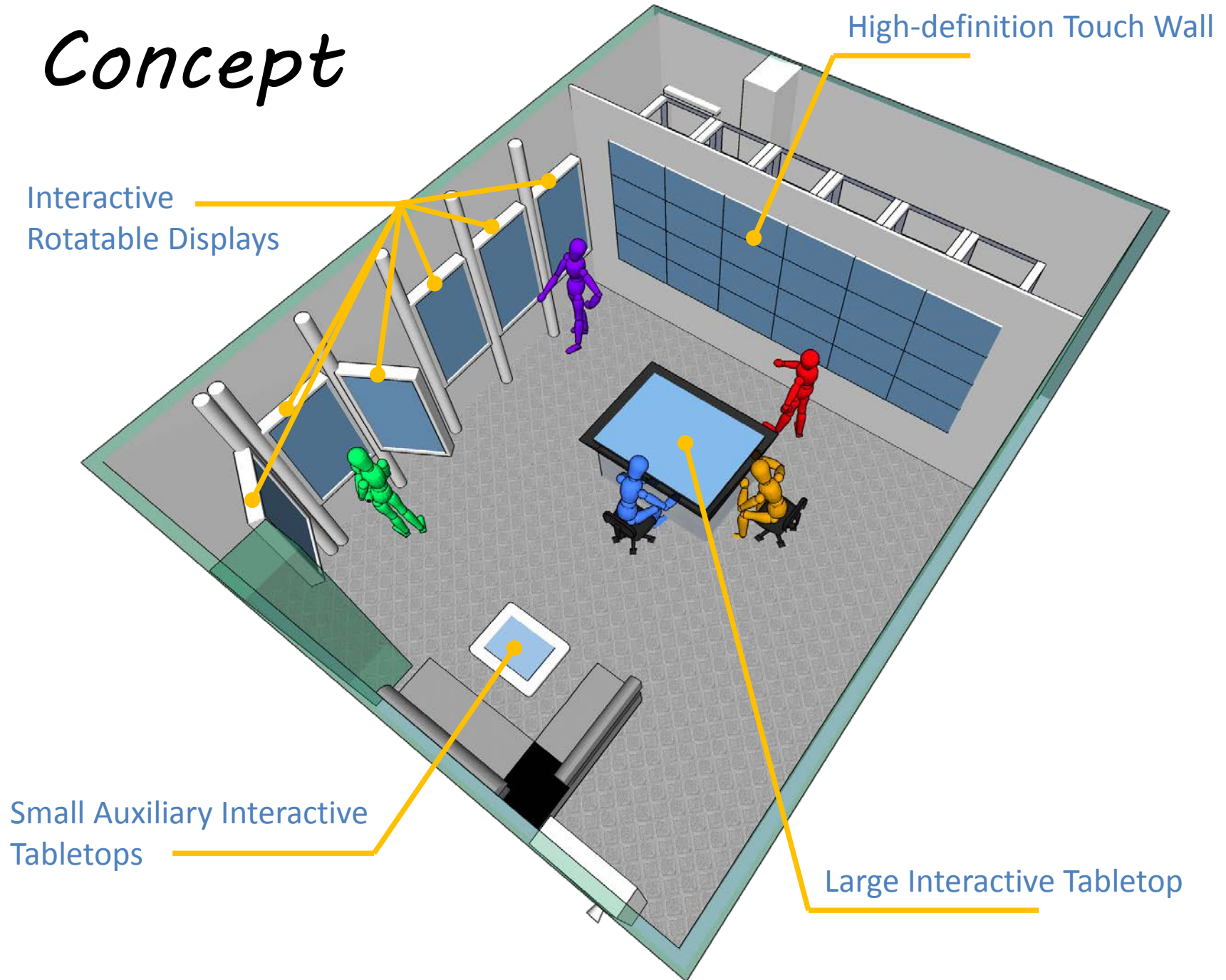
# Visualization Studio

## Intent, Mandate & Strategy

Mandate:  
To provide  
meaningful space,  
technologies and  
services to  
enhance the  
research effort of  
the University of  
Calgary faculty and  
graduate students.



# Concept



# *Building Relationships: Researchers*

## **Visualization Studio**

- Neutral position on campus
- Collaborative Workspace
- No windows, protect privacy of data
- High Resolution
- Lots of digital Real-Estate

