Contextualizing the Library

Using Ethnography to Discover and Address User Needs

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The ERIAL Project

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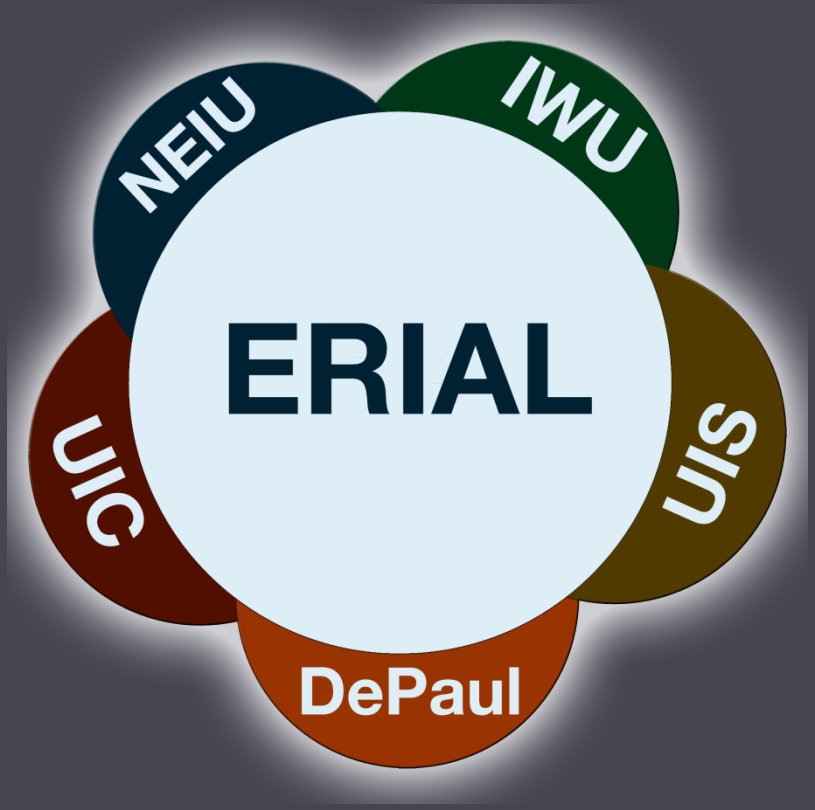
NERCOMP SIG Evaluation Website:
bit.ly/nercomp_research

ERIAL Overview

- Funding: Library Services Technology Act (LSTA) Grant from the Illinois State Library ($337,000)
- Timeline: September 2008 - June 2010
- Participants: Five institutions / 30 Librarians
  - Northeastern Illinois University (NEIU)
  - University of Illinois at Chicago (UIC)
  - DePaul University
  - Illinois Wesleyan University (IWU)
  - University of Illinois at Springfield (UIS)

Ethnographic Research in Illinois Academic Libraries



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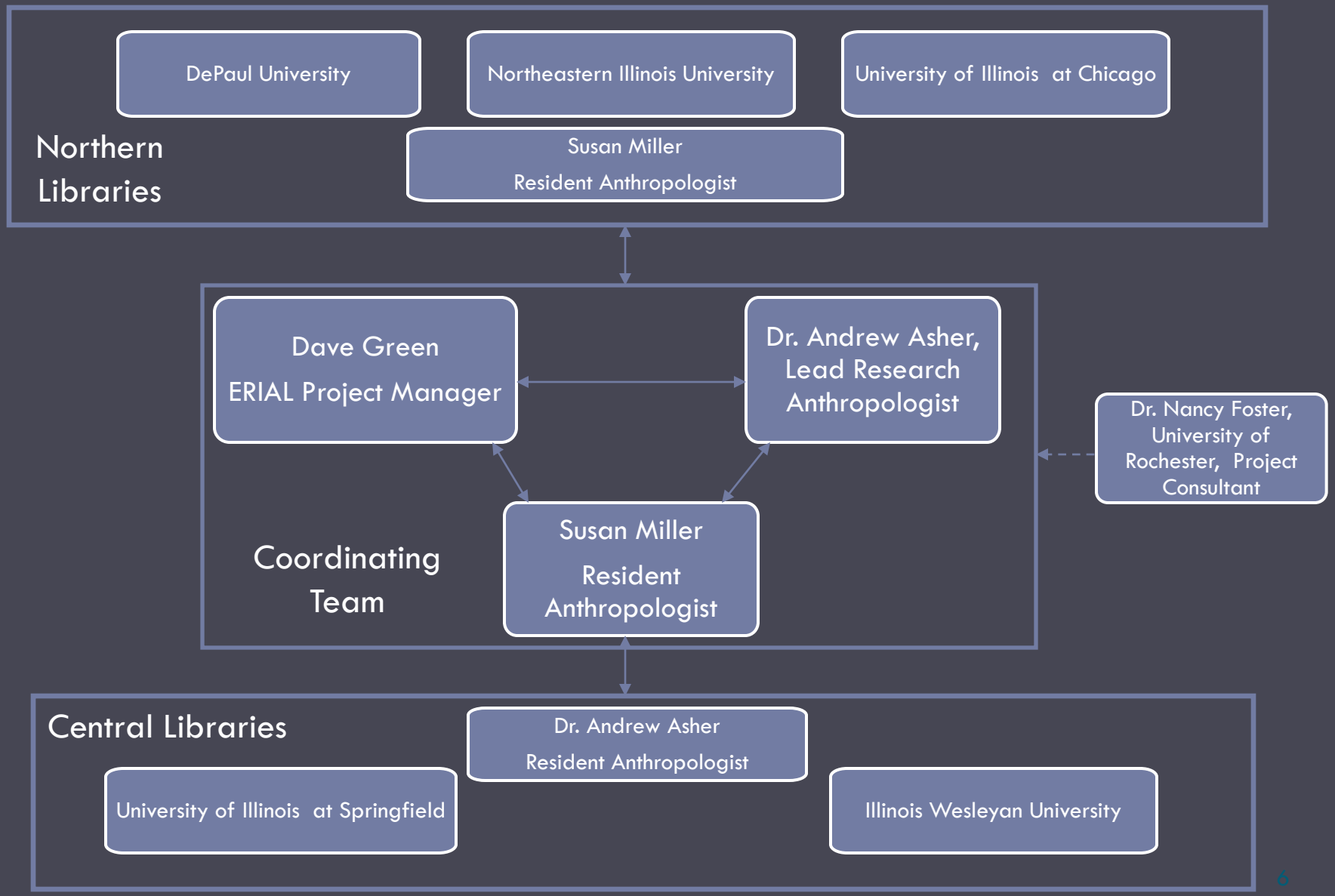
ERIAL Participating Universities

	IWU	UIS	DePaul	UIC	NEIU
Location	Bloomington	Springfield	Chicago	Chicago	Chicago
Environment	Residential	Residential	Urban	Urban	Commuter/ Urban
Public/Private	Private	Public	Private	Public	Public
Type	Liberal Arts	Liberal Arts/ Professional	Catholic-Affiliated	Research	Hispanic-Serving
Total Enrollment	2125	4711	24,352	25,835	12,320
Undergraduate Enrollment	2125	2889	15,782	15,665	10,114
Graduate Enrollment	0	1822	8570	10,170	2206

The ERIAL Project: Ethnographic Research in Illinois Academic Libraries



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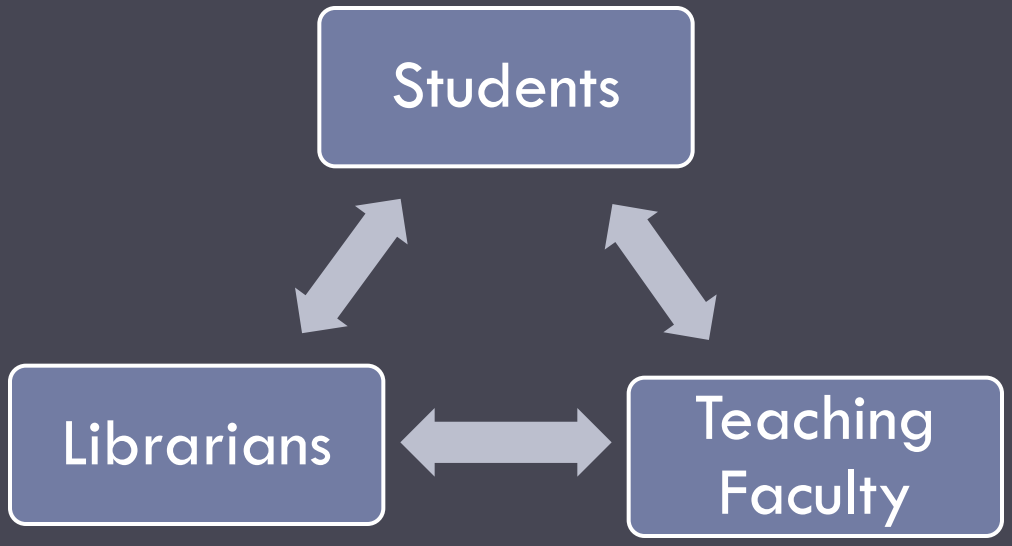
Two Research Questions

- What do students really do when they are assigned research projects for a class?
- What expectations do students, teaching faculty, and librarians have of one another during the research process?



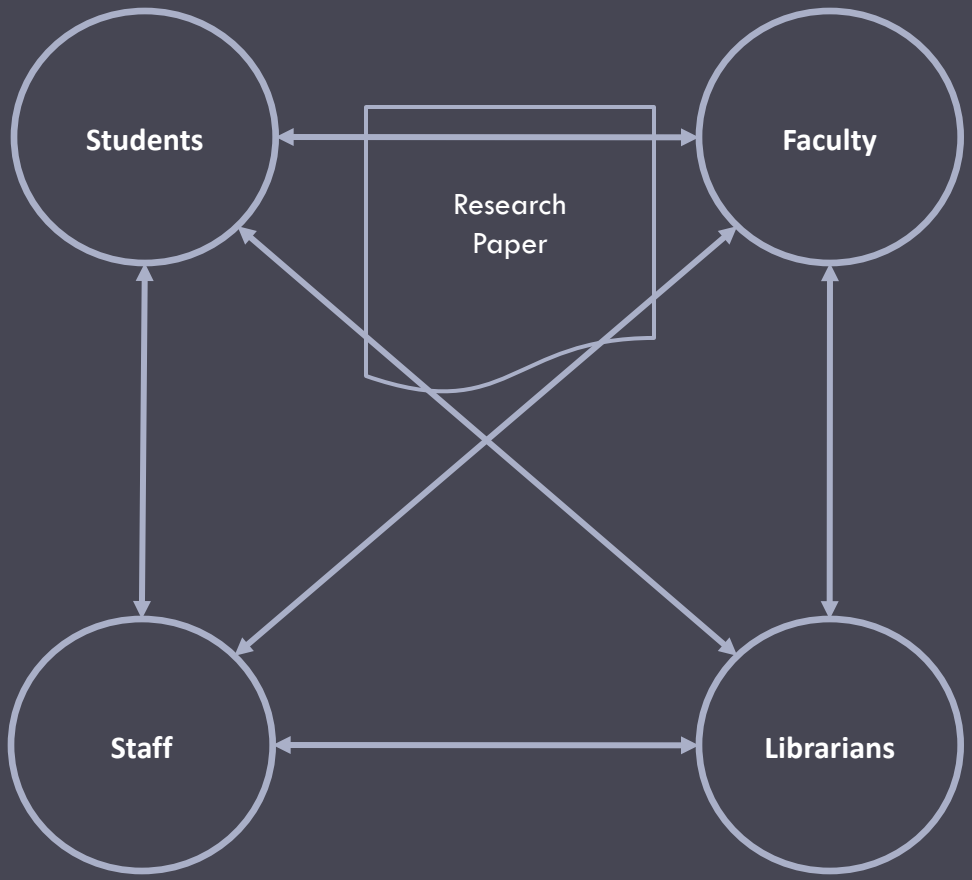
ERIAL Data Collection

- 9 Data Collection Methods
- 719 Research Contacts (over 600 unique participants)

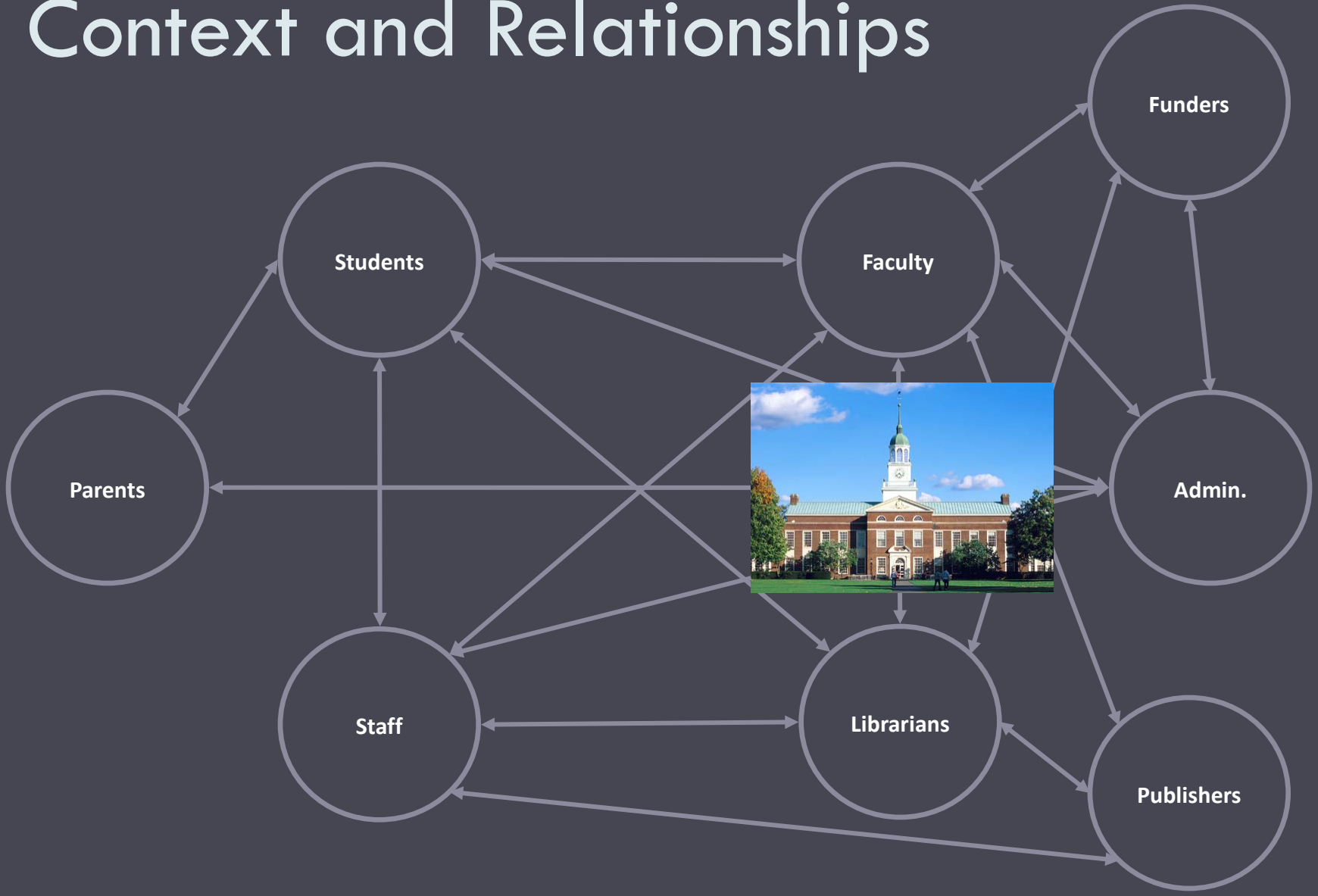
- 280 Semi-structured Ethnographic Interviews
  - 49 Librarians
  - 75 Faculty Members
  - 156 Students

- 60 Research Process Interviews

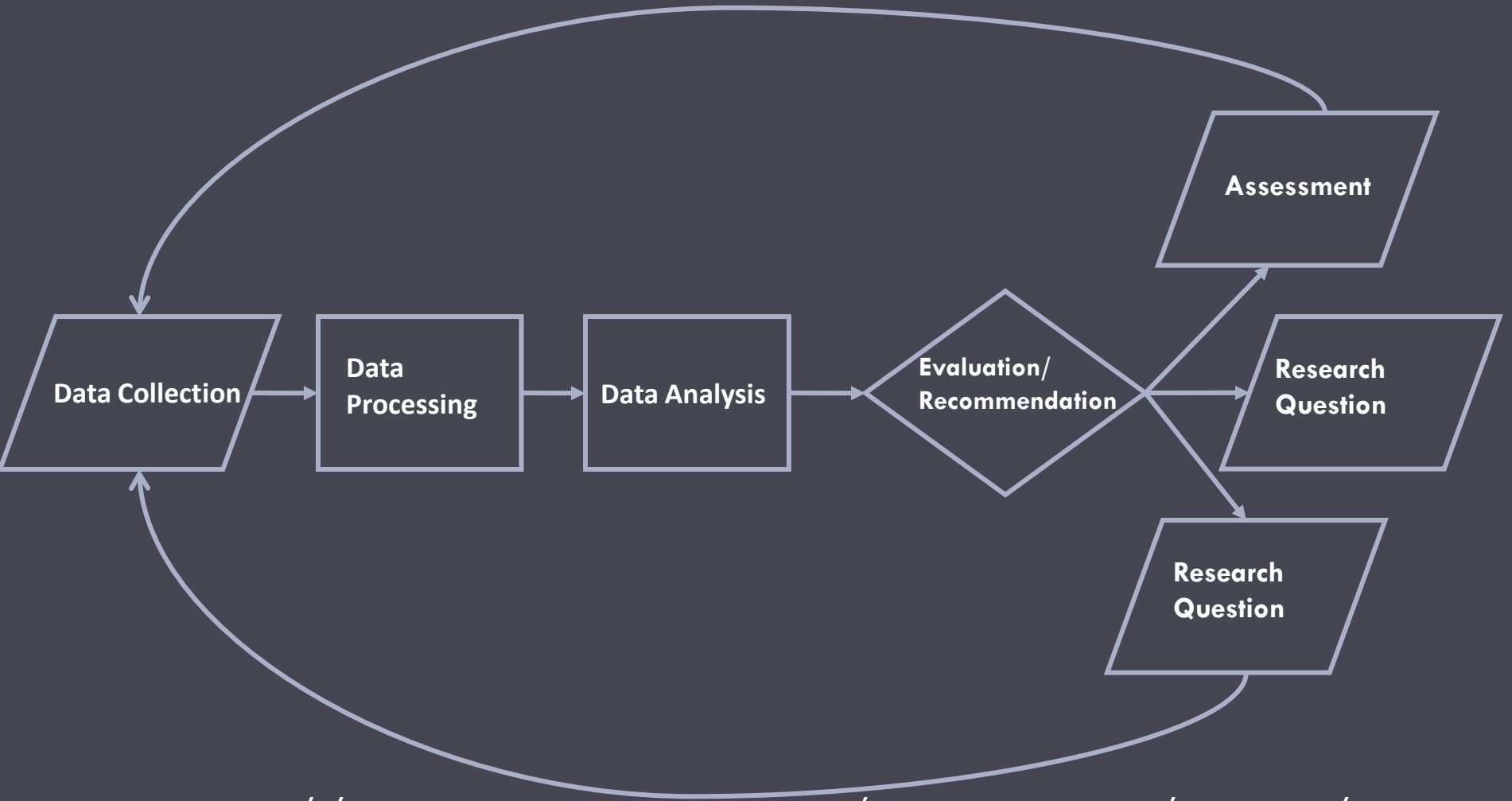
Context and Relationships



Context and Relationships



An Ethnographic Project



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Observational Methods

- Participant Observation
- Research Process

Elicitation Methods

- Mapping
- Photography

Retrospective Methods

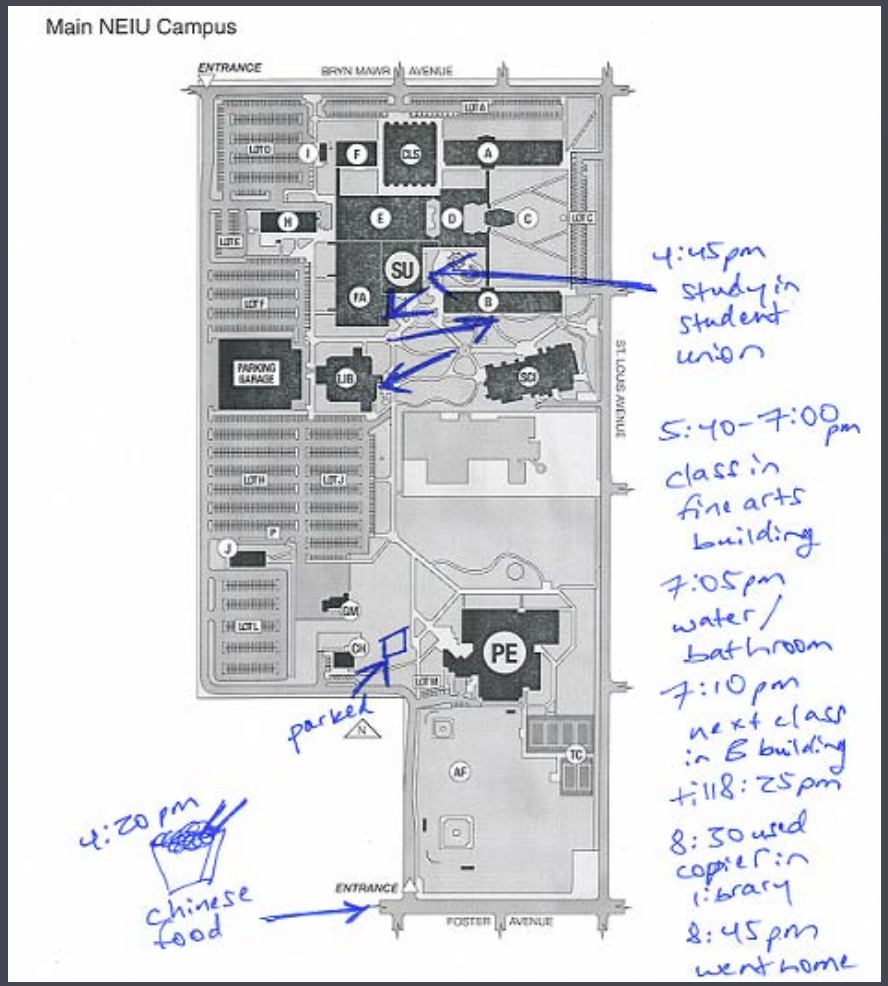
- Interviews

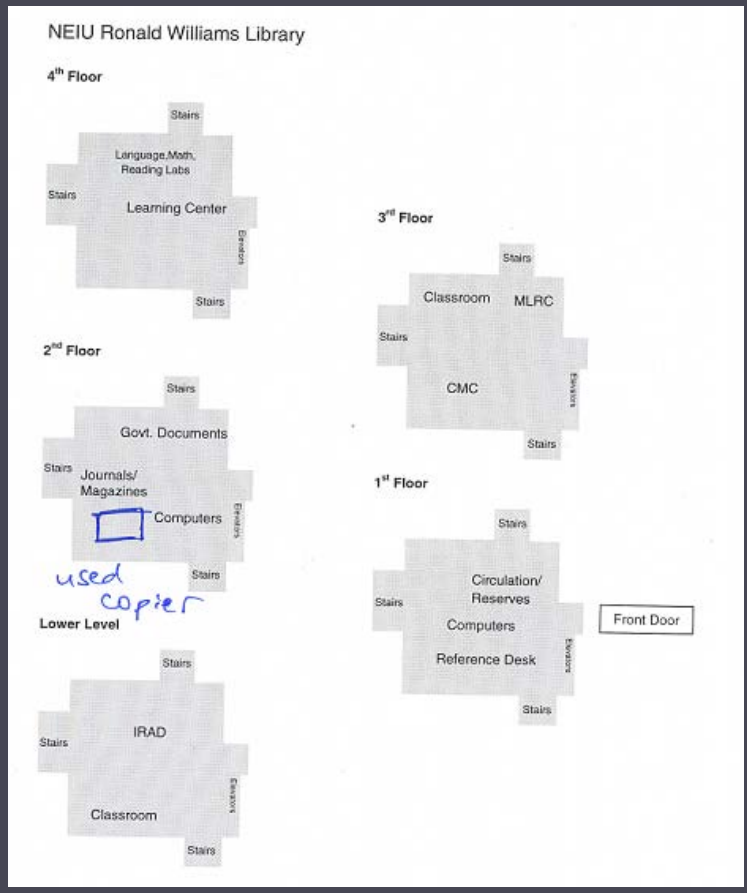
Visual Methods

- Library Maps
- Design Focus Groups

Elicitation Methods

Mapping Diary





Elicitation Methods

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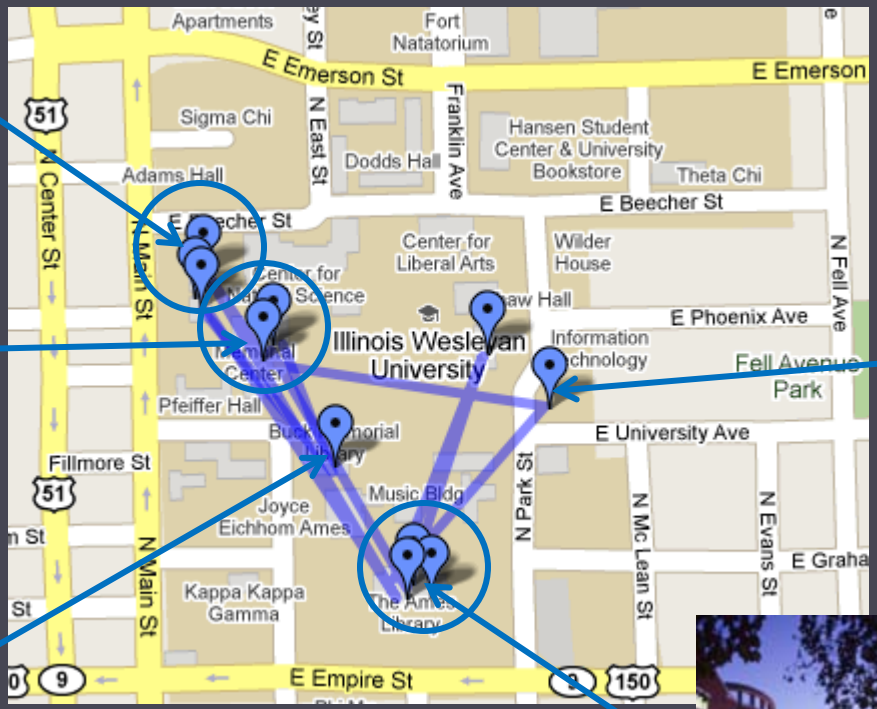


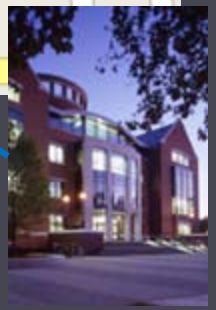
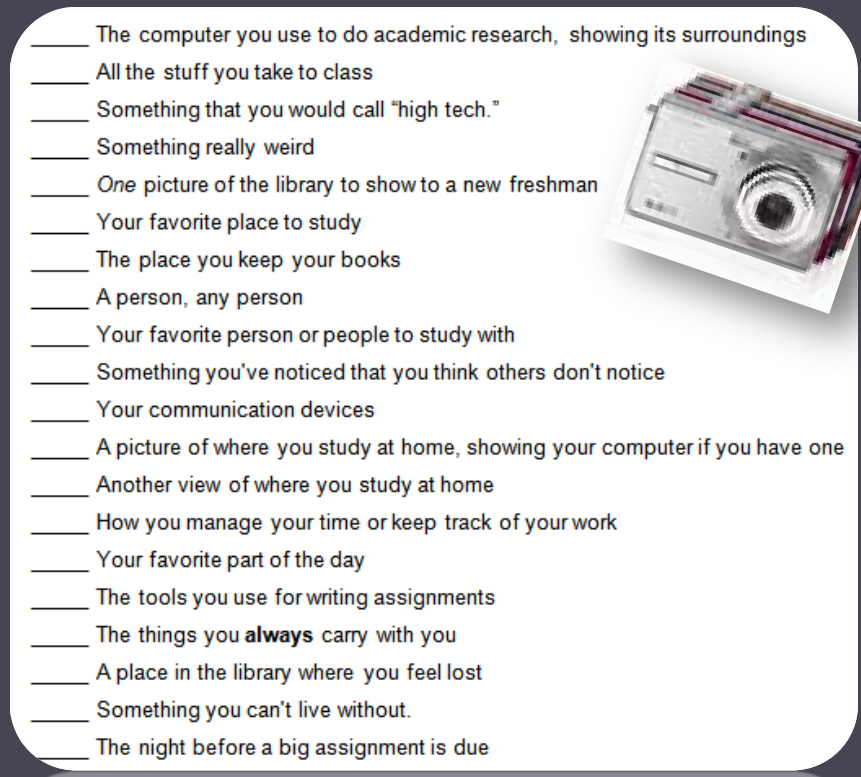


Photo Survey

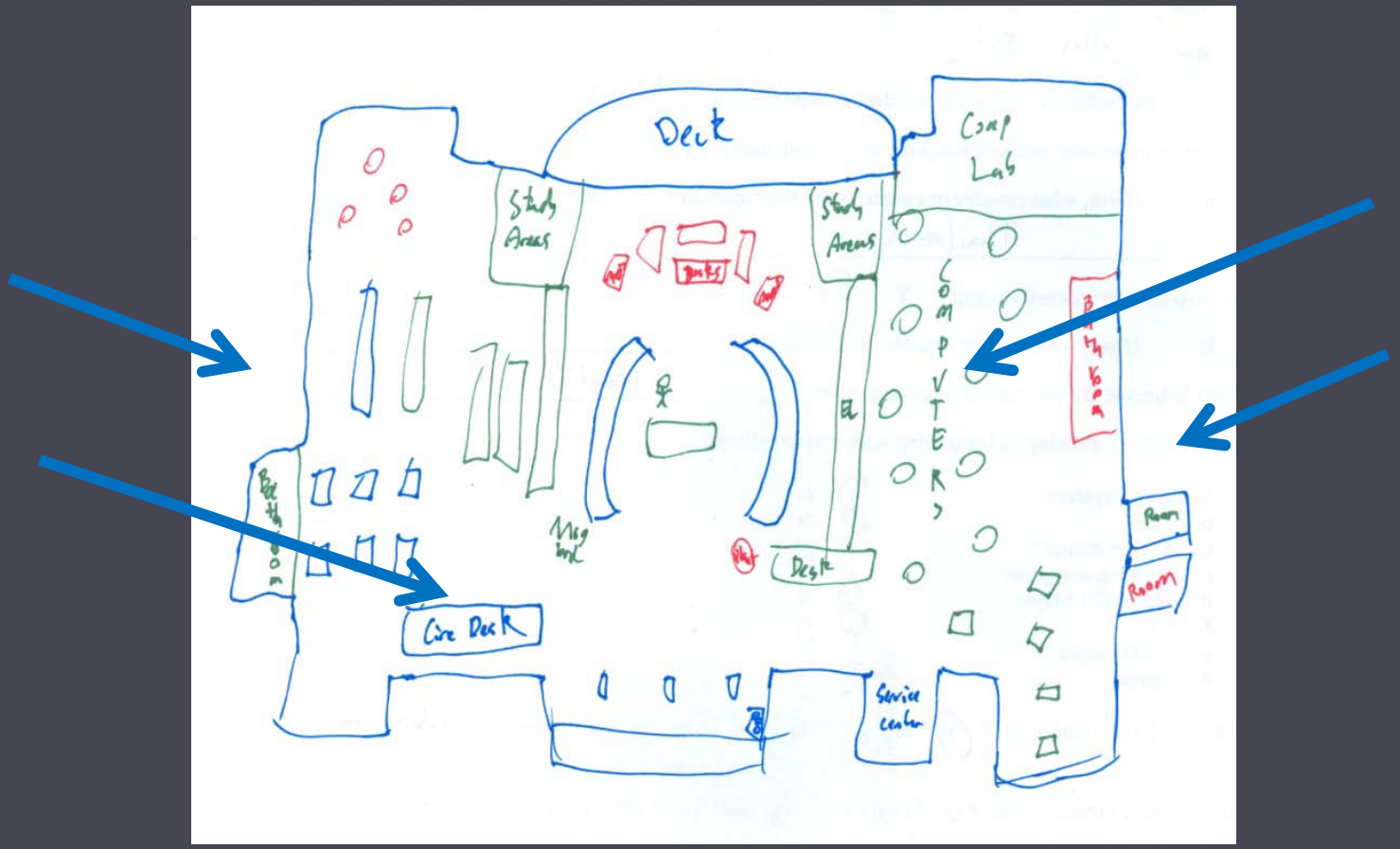
- Provide context in which a process is happening
- Follow-up interviews ask participants to describe and respond to photos
- Interview is more important than the photos themselves



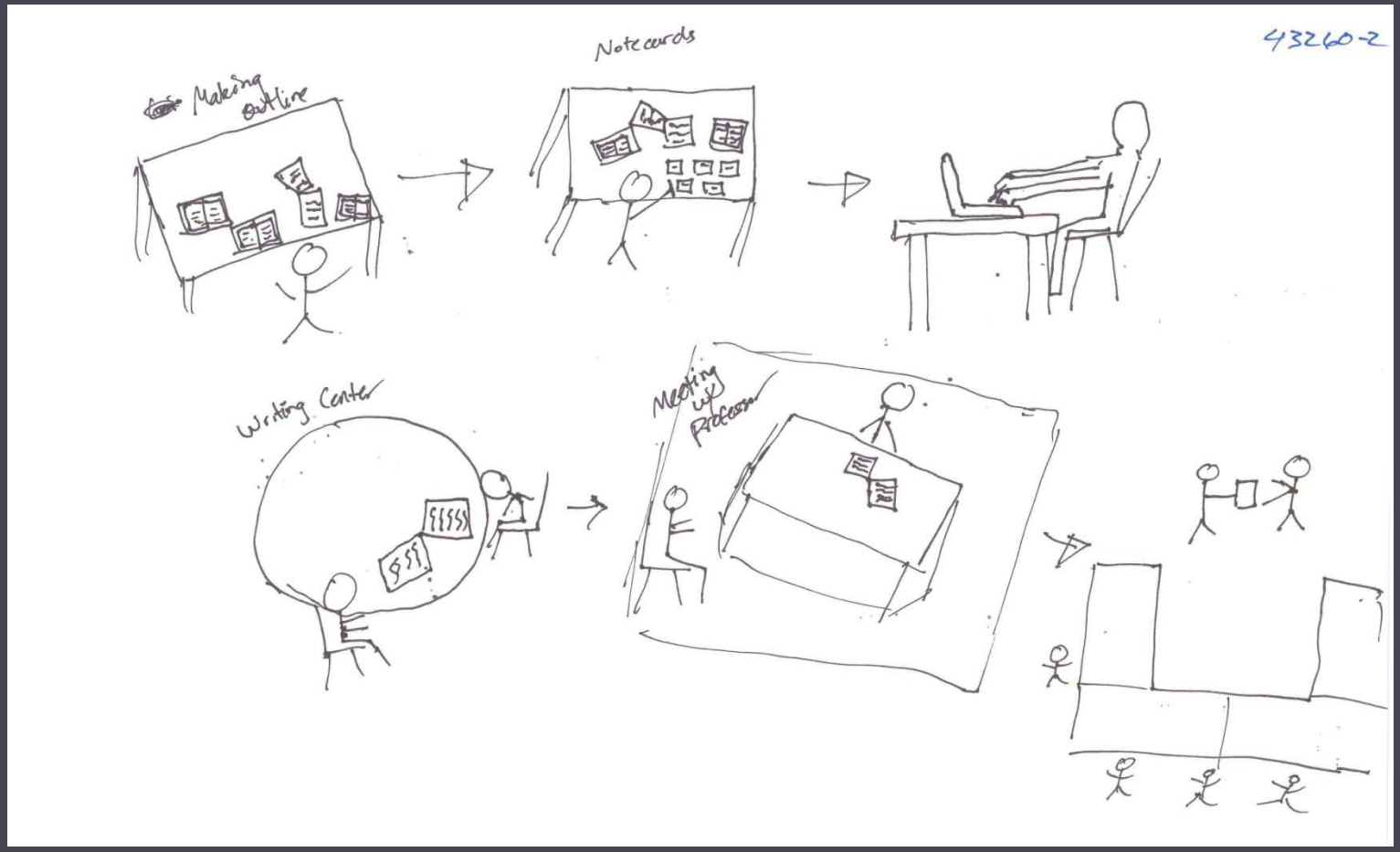
This list reproduced from *Studying Students by* Foster and Gibbons (2007)

Visual Methods

Cognitive Maps



Retrospective Research

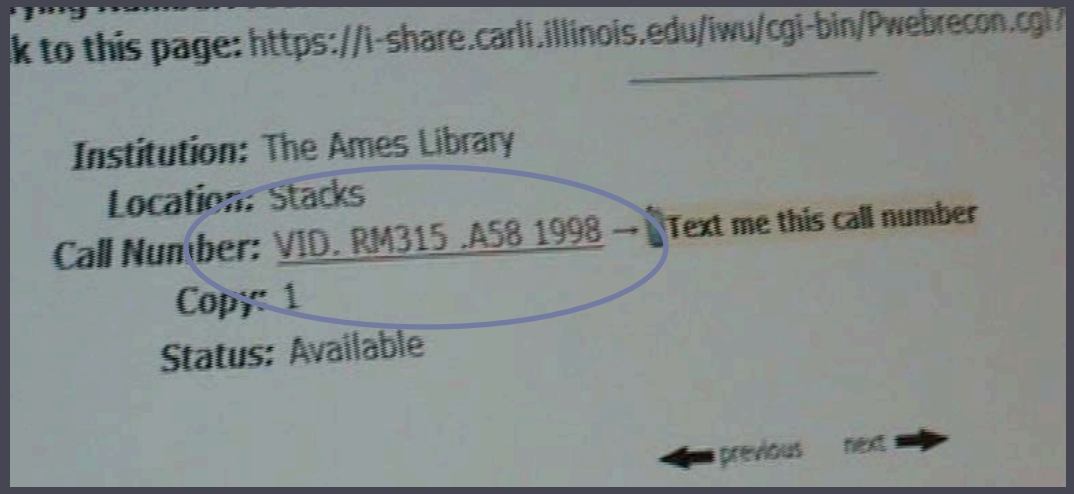


Example 1: Finding Materials

- First-year IWU student attempting to locate a video to use as a source for a research assignment.
- Confused about where to look for materials in the catalog, as well as LC call numbers.
- Student has already had two library instruction sessions.

Step 1: Identifies Item in Catalog

- Misinterprets call Number as “Video Room 315.”
- “RM” shelving is located on the fourth floor.
- Not sure about where to go, the student goes to the reference desk for help.



Step 2: At the Reference Desk

- The student staffing the reference desk is not there, leaving no one to help.
- The student consults a bookmark giving call number locations, decides that the item is on the fourth floor based on where "V" call numbers are shelved.

"I'm guessing--it starts with VID so that's on the fourth floor."

Step 3: Try the Circ Desk

- Decides to ask at the circulation desk.
- Is given incorrect information: *"Videos are on the third floor."*
- Videos are shelved in the stacks by call number.

Step 4: Ask at the Media Center

- The student goes to the third floor, but is confused because she can't find "Room 315."
- Asks for help at the media center, but the student tells her that she should ask at circulation.

"The circulation desk downstairs deals with where things are. We're mainly to check out equipment. . .things like laptops. I'm sorry."

Step 5: Read the Floor Plan

- The student consults the third floor signage, but can't find the call number on the map because it shows only one floor.

"This is not helping me. . ."

Step 6: Return to the Circ Desk

- The student returns to circulation desk, and is finally given correct information
- Finds video in the stacks
- Total time to find item:

10 minutes

- Very few students will persist this long

Summary

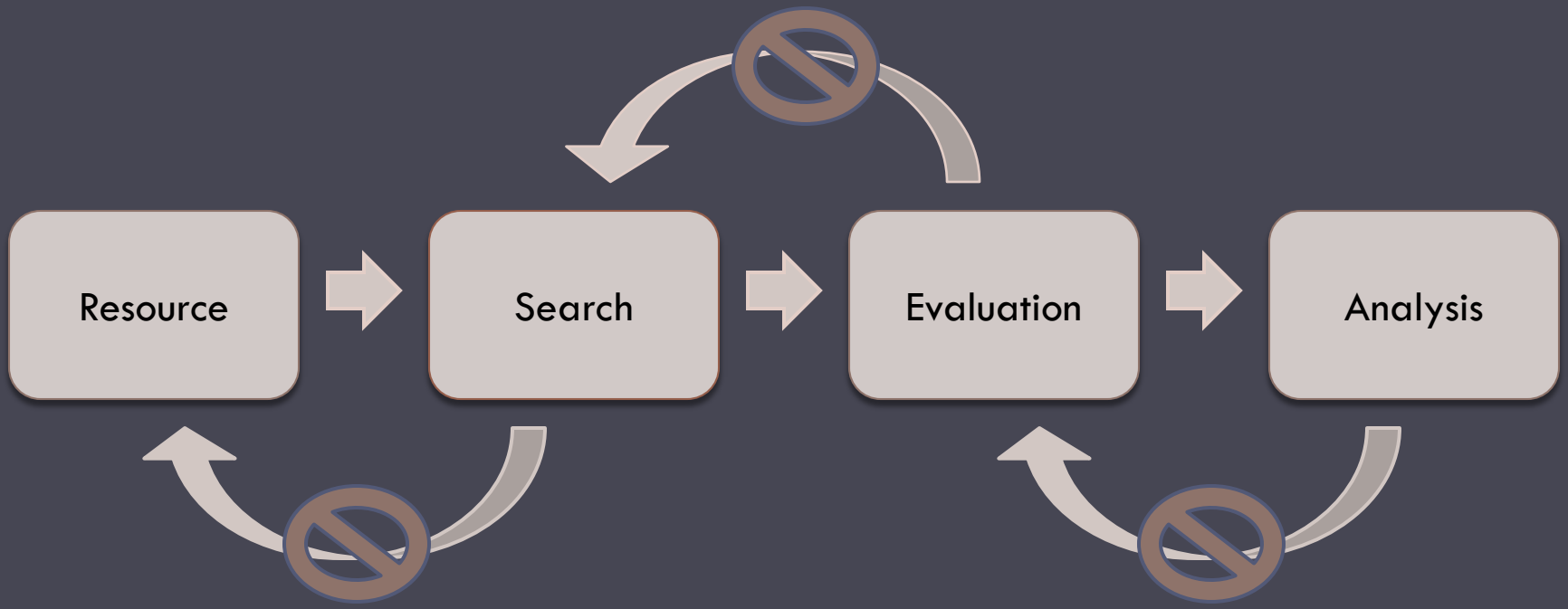
- A minor gap in the student's information literacy knowledge led to a major problem in finding the material.
- Student approached three different service points and did not receive adequate help with her problem.
- Small obstacles can lead directly to a failed search, negatively affecting students' learning outcomes.

Service Implications

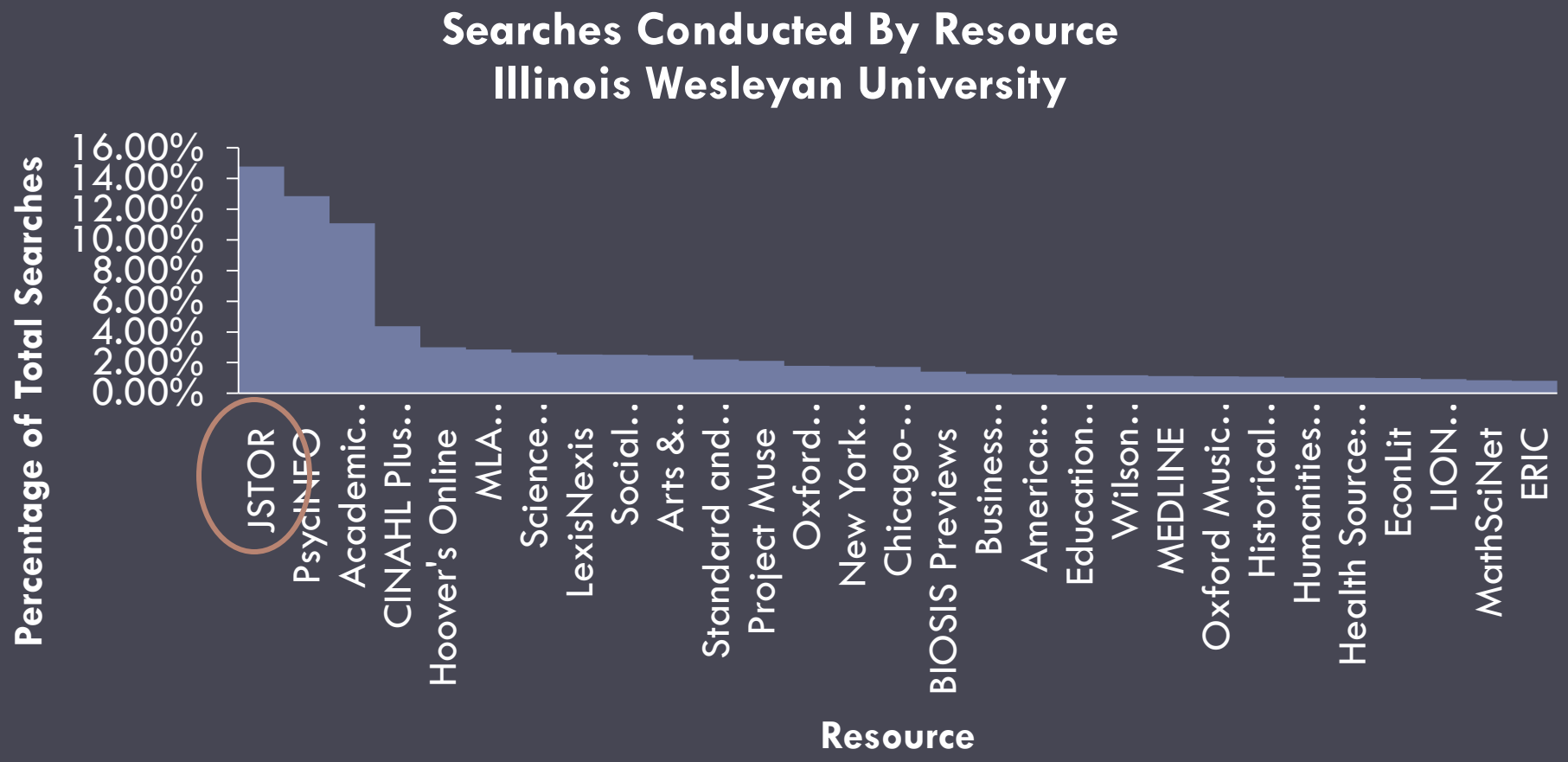
- Additional directional signage.
- Maps and/or locations displayed in catalog page alongside call number.
- Common basic service requirements and training at all service points.
- Increased training for library student employees.

Example 2: Research Processes

Search Process



Resource Choice



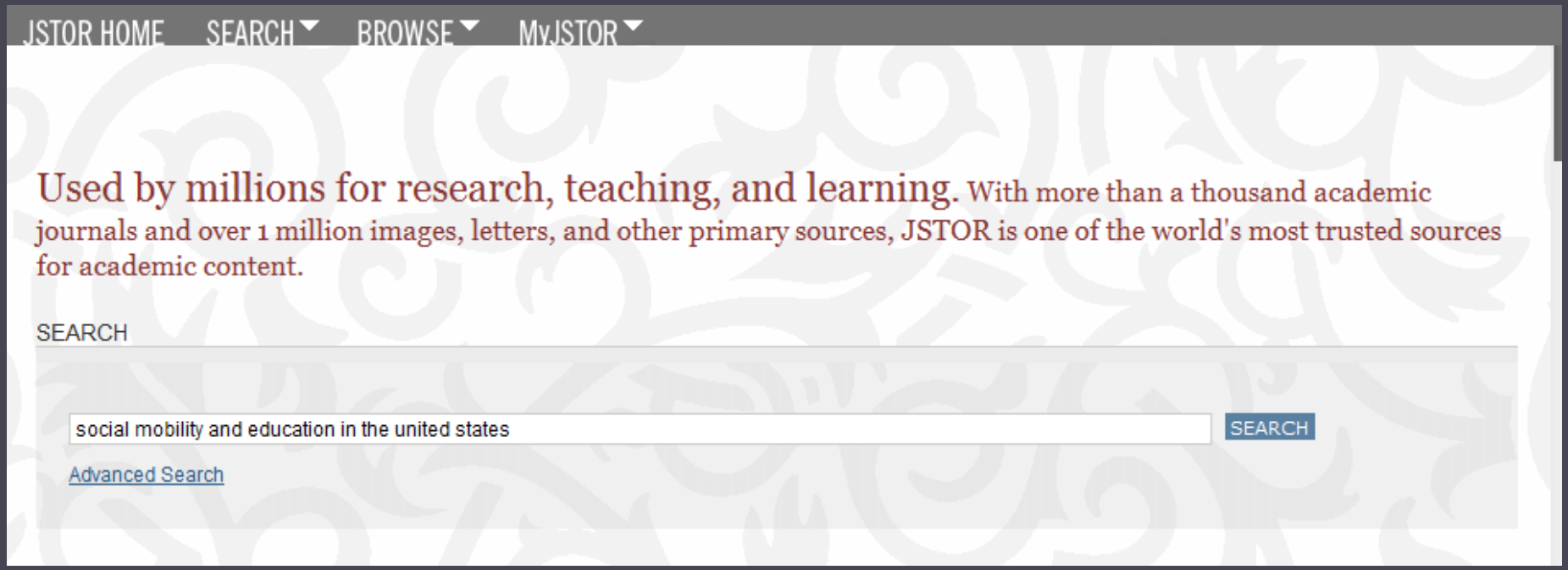
Resource Choice

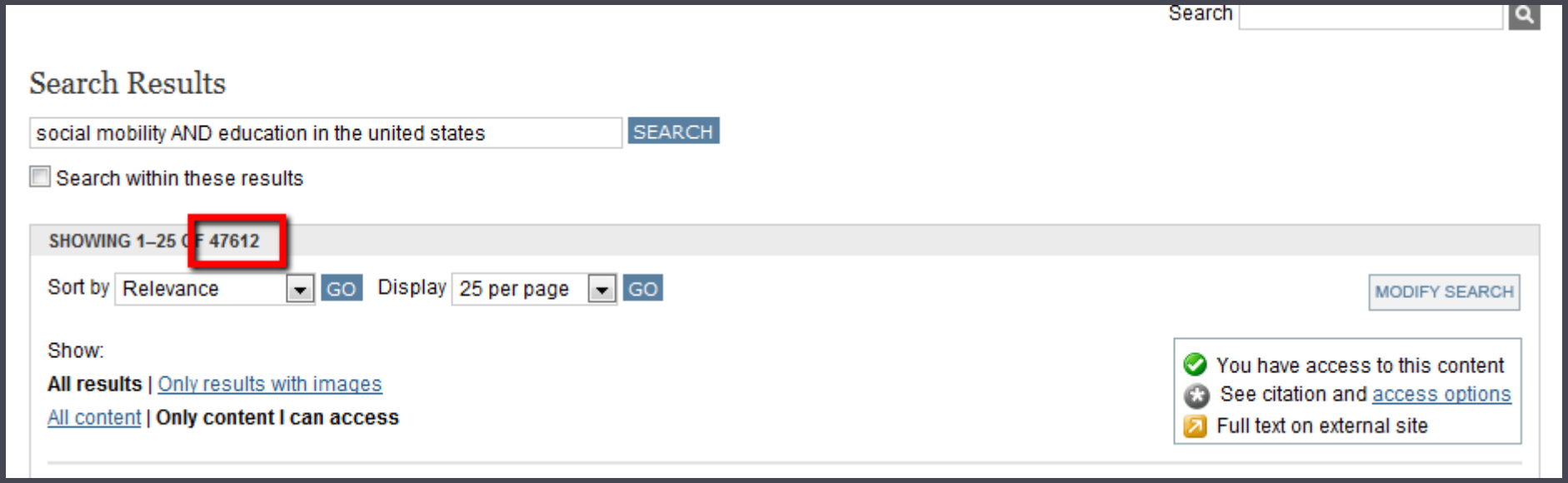
Why JSTOR?

- Worked in the past.
- Full text.
- Sufficiently robust for many assignments.

- Unaware of limitations.
- Fail to investigate most appropriate databases.

What does a typical search look like?

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Search Results
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SEARCH
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MODIFY SEARCH
Show:
All results | Only results with images
All content | Only content I can access
You have access to this content
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5. **Inequality, Economic Growth and Social Mobility**
Richard Breen
The British Journal of Sociology, Vol. 48, No. 3 (Sep., 1997), pp. 429-449
Page Scan PDF Item Information Page of First Match

6. **Chinese Social Stratification and Social Mobility**
Yanjie Bian
Annual Review of Sociology, Vol. 28, (2002), pp. 91-116
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7. **Soviet-U. S. Education**
Demitri B. Shimkin
The Science News-Letter, Vol. 75, No. 15 (Apr. 11, 1959), pp. 234-235
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8. **Moving and Children's Social Connections: Neighborhood Context and the Consequences of Moving for Low-Income Families**
Becky Pettit
Sociological Forum, Vol. 19, No. 2 (Jun., 2004), pp. 285-311
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9. **Unauthorized Immigration to the United States**
Thomas J. Espenshade
Annual Review of Sociology, Vol. 21, (1995), pp. 195-216
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10. **Social Mobility Across Three Generations**
Timothy J. Biblarz, Vern L. Bengtson, Alexander Bucur
Journal of Marriage and Family, Vol. 58, No. 1 (Feb., 1996), pp. 188-200
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11. **Occupational and Job Mobility in the US**
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The Scandinavian Journal of Economics, Vol. 109, No. 4, Macroeconomic Fluctuations and the Labor Market (Dec., 2007), pp. 807-836

12. **Intergenerational Social Mobility: The United States in Comparative Perspective**
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13. **Jewish Educational and Economic Success in the United States: A Search for Explanations**
Paul Burstein
Sociological Perspectives, Vol. 50, No. 2 (Summer, 2007), pp. 209-228

14. **Intergenerational Mobility under Private vs. Public Education**
James B. Davies, Jie Zhang, Jinli Zeng
The Scandinavian Journal of Economics, Vol. 107, No. 3 (Sep., 2005), pp. 399-417

The British Journal of Sociology
Vol. 48, No. 3 (Sep., 1997), pp. 429-449
Published by: Blackwell Publishing on behalf of The London School of Economics and Political Science
http://www.jstor.org/stable/591139

Inequality, Economic Growth and Social Mobility

Richard Breen

Richard Breen*

Inequality, economic growth and social mobility[1]

ABSTRACT

This paper develops a model of intergenerational mobility and intragenerational inequality that allows us to explore the relationship between economic growth and social mobility. The model is used to analyse the neo-liberal theory of stratification and to assess the consequences of some of the criticisms that have been made of it. In particular, the intergenerational transmission of wealth and privilege, and the existence of ethnic, gender and other forms of ascriptive disadvantage, reduce economic efficiency, although they do not always diminish the extent of social mobility. Furthermore, excessive intragenerational inequality may

Constructing a Search

- Every search is a Google search

> "So, I basically throw whatever I want into the search box and hope it comes up.. . .But it's like Google and I use it like Google. I don't know how to use it any other way."
>
> –Junior in Nursing

- Students don't adequately understand:
  - Search logic
  - How to narrow/expand results
  - Subject headings
  - How search engines organize and display results.

> "Apparently you don't have much on Rock and Roll"
>
> --First Year in French

Constructing a Search

Simple Search  "Too much information" "Not enough information"

- Students change search rather than refine.
  - "Magic" Search Terms
  - Poorer quality search terms

Typical Library Responses

- Educating students.
- Trying to make search interfaces simpler and more intuitive.
- Aggregating resources (e.g. discovery tools).

- Compounds problem of poor strategies.
- Makes source evaluation more difficult.

Search Evaluation

- Assumption that if information is not easily found then it must not exist.
- Remarkable ease in changing topics to fit information.
- Pass up unique topics in favor of topics with widespread coverage.
- First few sources define research question.

"I pretty much pick the least amount of work necessary. If I don't have access to it, I search for something else."
--Senior in Women's Studies

Search Evaluation

- Evaluation of potential sources appears cursory.

> "I never go past the first page."
> --First Year in Music Education

- Eclectic, and sometimes inaccurate, methods of source evaluation.
- Minimum expectations of the assignment rather than the most relevant or most useful sources.

> ". . .I'm lazy and I use the internet."
> --First Year in Math

Conclusions

- Search is embedded in social processes and relationships.
  - Peer relationships
  - Faculty/Student Relationships
  - Place of librarians?
- Assignment as social exchange.

I don't know how people wrote theses before JSTOR. Big love."

"I can't believe JSTOR has a facebook page. There is something wonderfully nerdy about liking it, but it does make life so much easier. JSTOR is AWESOME"

"I ♥ you JSTOR you make my life so much easier!"

From JSTOR's Facebook page, 9/20/2010

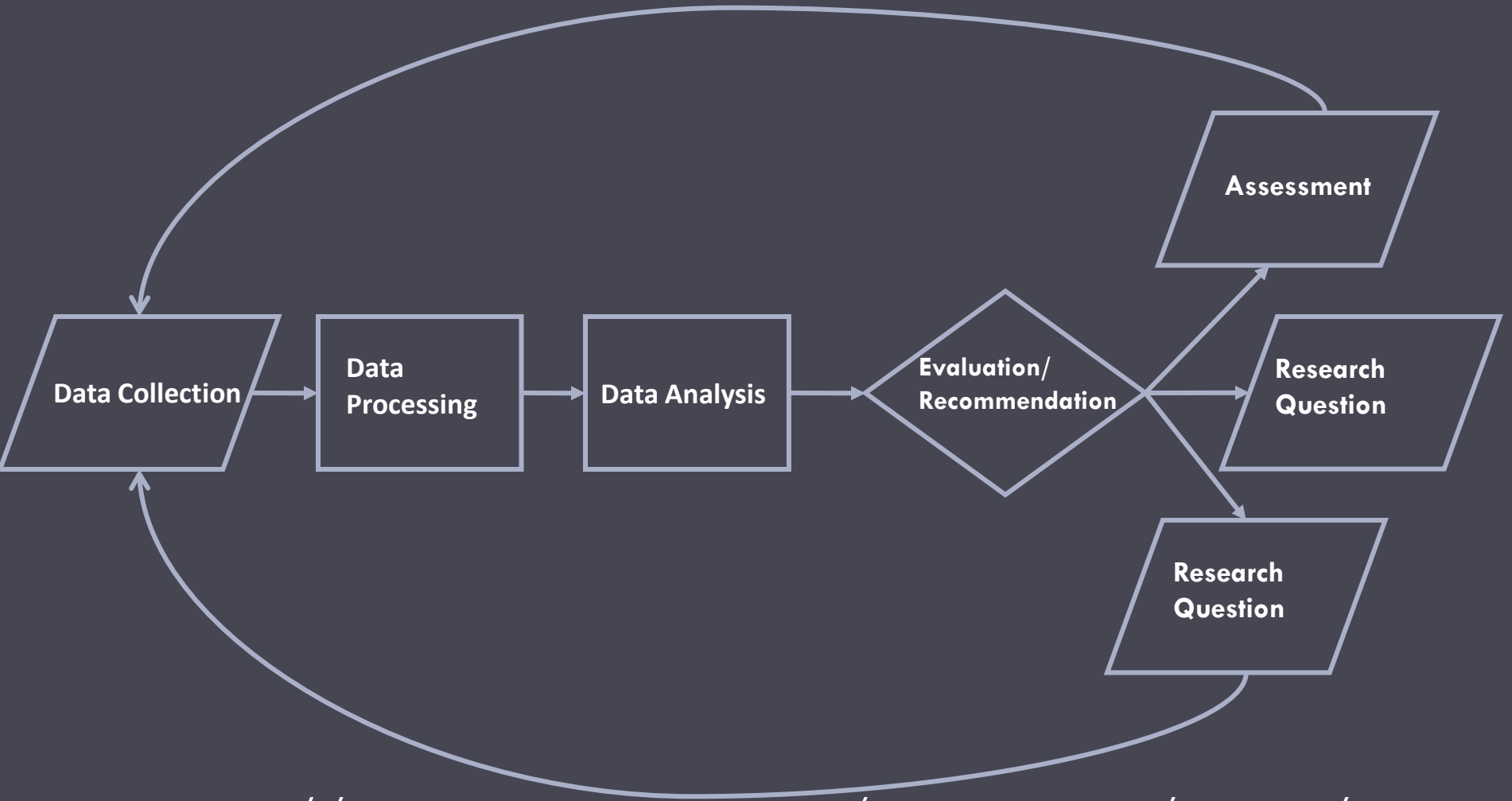
ERIAL Project: Cross-Institutional Themes

- The library is a social institution and is utilized for many activities besides studying and research.
- Students do not have adequate information literacy skills or training.
  - More emphasis on conceptual information literacy concepts in instruction sessions.
    - How a search works
    - Evaluating sources
    - Copyright / ethical use
  - Explore web scale search tools

ERIAL Project: Cross-Institutional Themes

- Students don't understand what librarians do or their role at a university.
  - Very few students ever seek help from a librarian.
- Faculty are key players in brokering librarian/student relationships.
  - Increase collaboration with teaching faculty.
  - Students will seek help from librarians after a faculty recommendation.

Project Planning



http://www.erialproject.org/publications/toolkit/

Timing

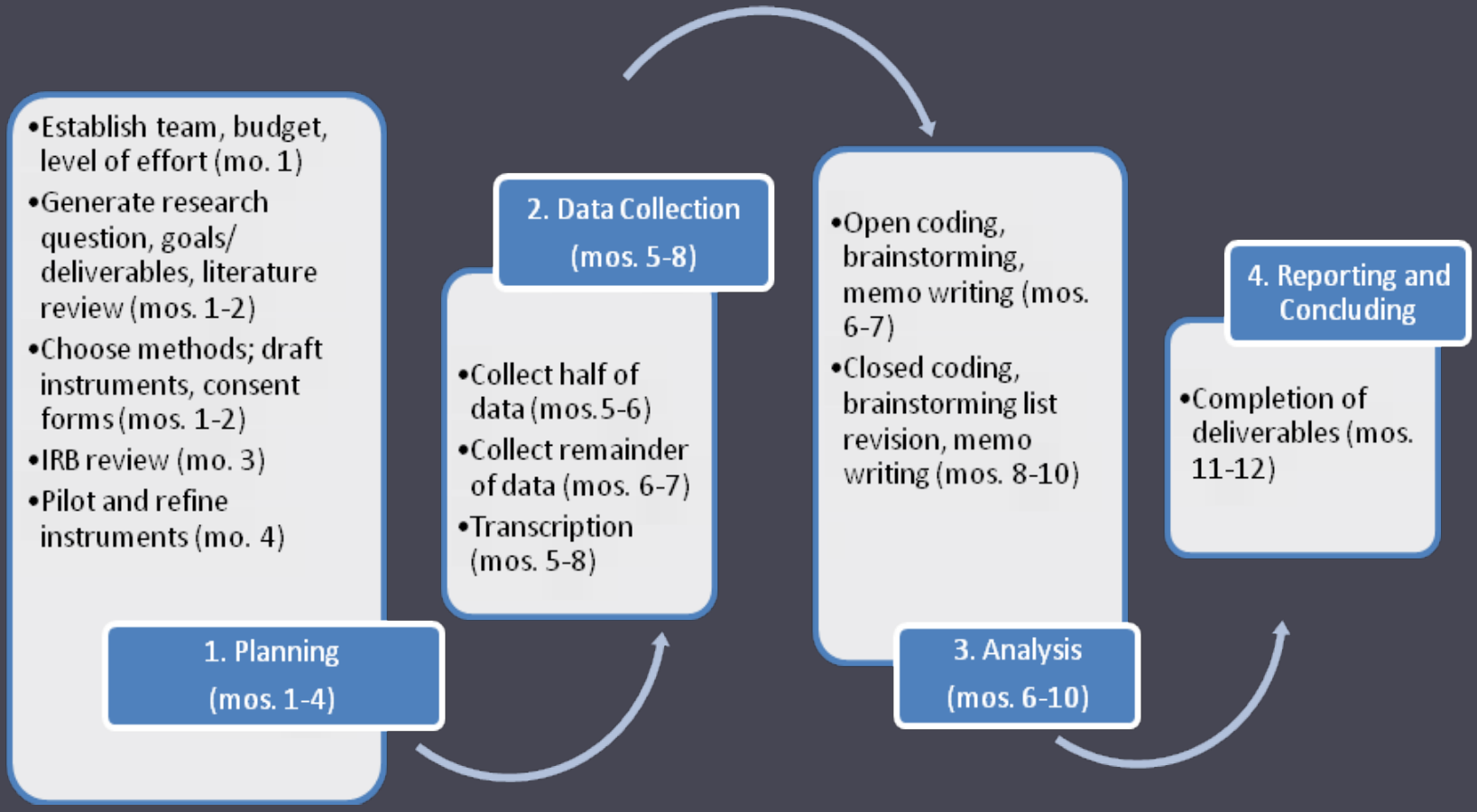
It will take longer than you think. . .

Time Commitment

- The time commitment for librarians is significant.
  - Scope of the study.
  - Number of research activities to be conducted.
  - Scheduling interviews and data analysis meetings.

- The window for data collection within the academic semester can be short.
  - Research team members should expect to spend some period of time focusing on intensive data collection.

A Sample Timeline



Cost

It's probably not as expensive as you think. . .

An Ethnographic "Kit"

- Notebooks and Pens
- Laptop Computer
- Voice Recorder
- Digital Camera
- Video Camera
- DVD Burner

- Qualitative Analysis Software
  - Atlas.ti/Nvivo
  - Transcription Software
  - Camtasia/Morae

- Total cost: <$3000

Research Team

- Diverse membership.
- Ethnographic analysis is an interpretive exercise.
  - Varying disciplinary backgrounds will often have unique perspectives.
- Delegate responsibilities, especially data collection components.
- Try to keep your project team to a manageable size.

Research Design

Defining Research Questions

Brainstorming

- What questions do you want answered?
- What is your hypothesis?
- What could you do if you had this information?
- What services can you implement?

- Specific, Tangible
- Directly Observable
- Qualitative: "Why?" "How?"

What kind of participants?

- Key Respondents?
- Particular experience?
- Different Groups?
- Specific/Range of Characteristics?
- Representative?

How many participants?

- Start small.
  - 15-30 participants.
- Strive to be representative.
  - . . .but not statistically representative.
- Depth is more important than numbers.
- Continue until no new data themes emerge.

Recruiting

- Listservs
- Individual invitations
- Incentives
- Adapt to local context

IRB Considerations

- Federally Mandated
  - Must be approved before any data is collected.
- Review of:
  - Purpose
  - Method
  - Risks
  - Use of Data
- Confidentiality.
- Requirements vary by institution.

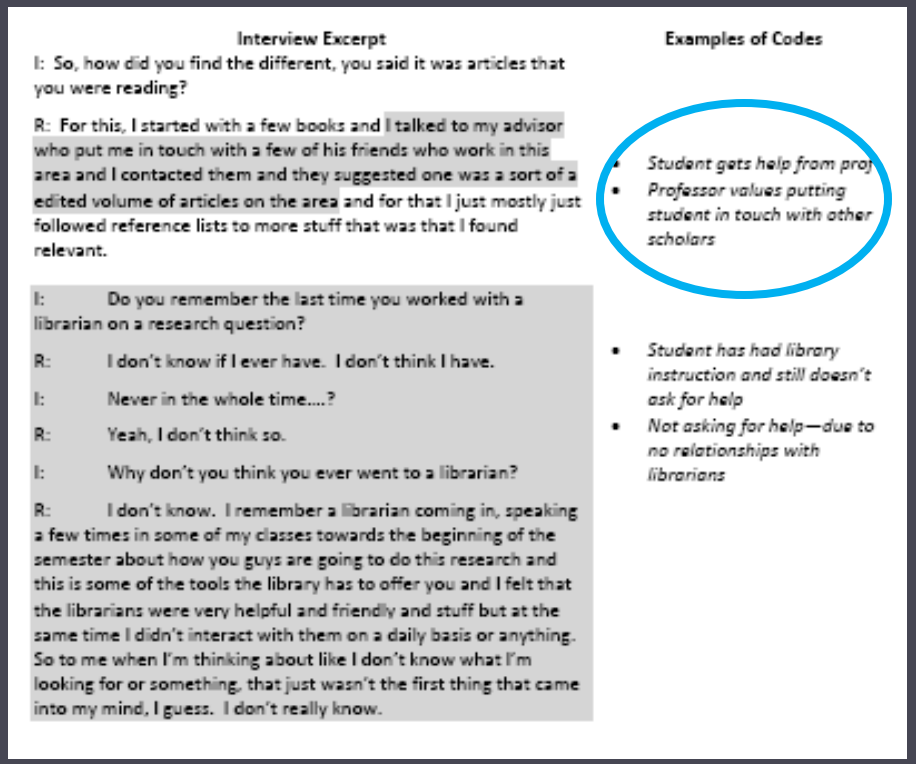
Transcription

- Most interviews need to be transcribed for effective analysis.
- Budget enough time/money.
- Hire a professional or experienced transcriptionist.

Interview Excerpt	Examples of Codes
I: So, how did you find the different, you said it was articles that you were reading?	
R: For this, I started with a few books and I talked to my advisor who put me in touch with a few of his friends who work in this area and I contacted them and they suggested one was a sort of a edited volume of articles on the area and for that I just mostly just followed reference lists to more stuff that was that I found relevant.	• *Student gets help from prof* • *Professor values putting student in touch with other scholars*
I: Do you remember the last time you worked with a librarian on a research question? R: I don't know if I ever have. I don't think I have. I: Never in the whole time....? R: Yeah, I don't think so. I: Why don't you think you ever went to a librarian? R: I don't know. I remember a librarian coming in, speaking a few times in some of my classes towards the beginning of the semester about how you guys are going to do this research and this is some of the tools the library has to offer you and I felt that the librarians were very helpful and friendly and stuff but at the same time I didn't interact with them on a daily basis or anything. So to me when I'm thinking about like I don't know what I'm looking for or something, that just wasn't the first thing that came into my mind, I guess. I don't really know.	• *Student has had library instruction and still doesn't ask for help* • *Not asking for help—due to no relationships with librarians*

Coding

- Research themes and patterns
- Open Codes/Closed Codes



Interview Excerpt

I: So, how did you find the different, you said it was articles that you were reading?

R: For this, I started with a few books and I talked to my advisor who put me in touch with a few of his friends who work in this area and I contacted them and they suggested one was a sort of a edited volume of articles on the area and for that I just mostly just followed reference lists to more stuff that was that I found relevant.

I: Do you remember the last time you worked with a librarian on a research question?

R: I don't know if I ever have. I don't think I have.

I: Never in the whole time....?

R: Yeah, I don't think so.

I: Why don't you think you ever went to a librarian?

R: I don't know. I remember a librarian coming in, speaking a few times in some of my classes towards the beginning of the semester about how you guys are going to do this research and this is some of the tools the library has to offer you and I felt that the librarians were very helpful and friendly and stuff but at the same time I didn't interact with them on a daily basis or anything. So to me when I'm thinking about like I don't know what I'm looking for or something, that just wasn't the first thing that came into my mind, I guess. I don't really know.

Examples of Codes

- *Student gets help from prof*
- *Professor values putting student in touch with other scholars*

- *Student has had library instruction and still doesn't ask for help*
- *Not asking for help—due to no relationships with librarians*

Open Coding

- Open coding is used to discover themes and patterns within the data.
- Code all sections that seem important or relevant.
- If something seems important or interesting, code for it.
- Codes are not limited in scope, and the researchers are free to add any codes.

Open Coding

- Generating open codes:
  - Create codes that describe parts of a process.
    - What participants are doing and how.
    - What meanings they assign to the process.
    - What are the results of the process.
- Select a particular process that is of interest.
  - e.g. How students get help when doing research.

Open Coding

- Produces a great number of codes.
  - Redundant and unnecessary codes.
  - Organize the codes into a thematic hierarchy:
    - Group codes related to similar topics.
    - Combine redundant codes.
    - Eliminate codes that are not relevant.
    - Create new codes to address any gaps you discover.
    - Cross-reference codes that fall into multiple categories.
- Much of this organizational work can be automated using coding software.

Closed Coding

- Once you have a final list of codes, select the themes that are most important.
- Apply the codes that fall under these themes to all your transcripts.
- Allows all the data under analysis to be queried in a uniform fashion.
- If any codes are added at this point, they must be retroactively applied to all transcripts.

Memoing

- Throughout the coding process, you should write memos about the data.
  - Explore what different concepts mean.
  - Range in length from a few sentences to a few paragraphs.
  - Can elaborate on the meaning of a code in various transcripts.
  - Relate different codes to each other.

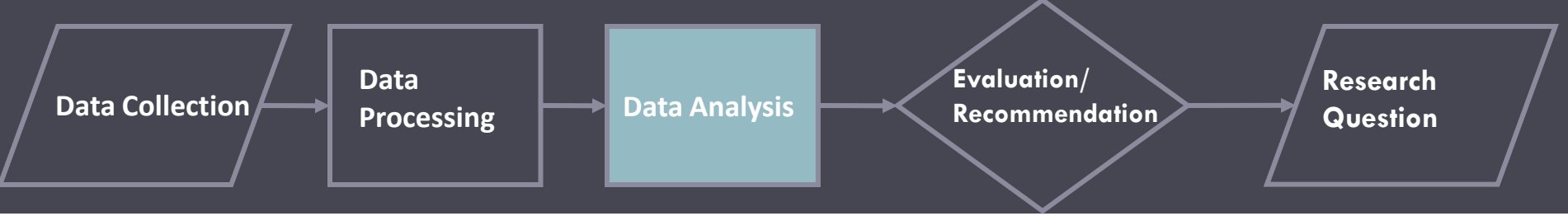
- Memos help the researcher explore more fully what he/she is learning during the research process.

Coding: Summary

- Even with the help of specialized software, coding is a time consuming process.
- Not simply drudge work but a first and vital step in data analysis.
- Creates a framework of metadata that guides later stages of analysis and reporting.

Coding: Summary

- Helps break down seemingly overwhelming amounts of information into more manageable pieces.
- It can be difficult to maintain a standard set of coding language between individuals.
  - Consider delegating coding to a small number of people.



Analysis Meetings

- Co-viewing
- Brainstorming
- Hypotheses

Example: Weekly Research Team Meeting Analysis Summary Format
We used the following format to guide and summarize our weekly brainstorming meetings:

Weekly Research Team Meeting Summary, date

Topic of Meeting

What Did We Learn?
- General Observations
- Patterns Found in the Data
- Exceptional or Interesting Cases

Hypotheses about the Data

New Research Questions (either to use on this data or for a study later)

Service Implications (e.g. how can library address any problems observed)

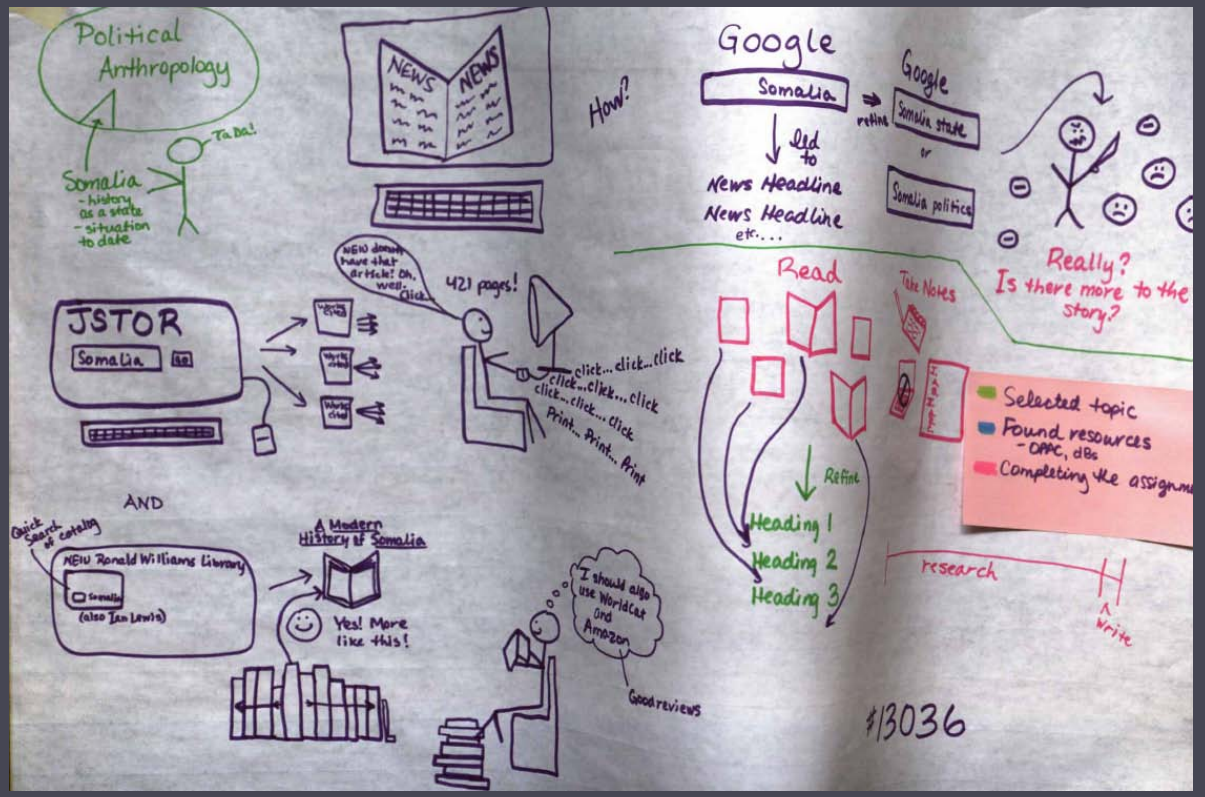
Additional Analysis Required?

Additional Comments

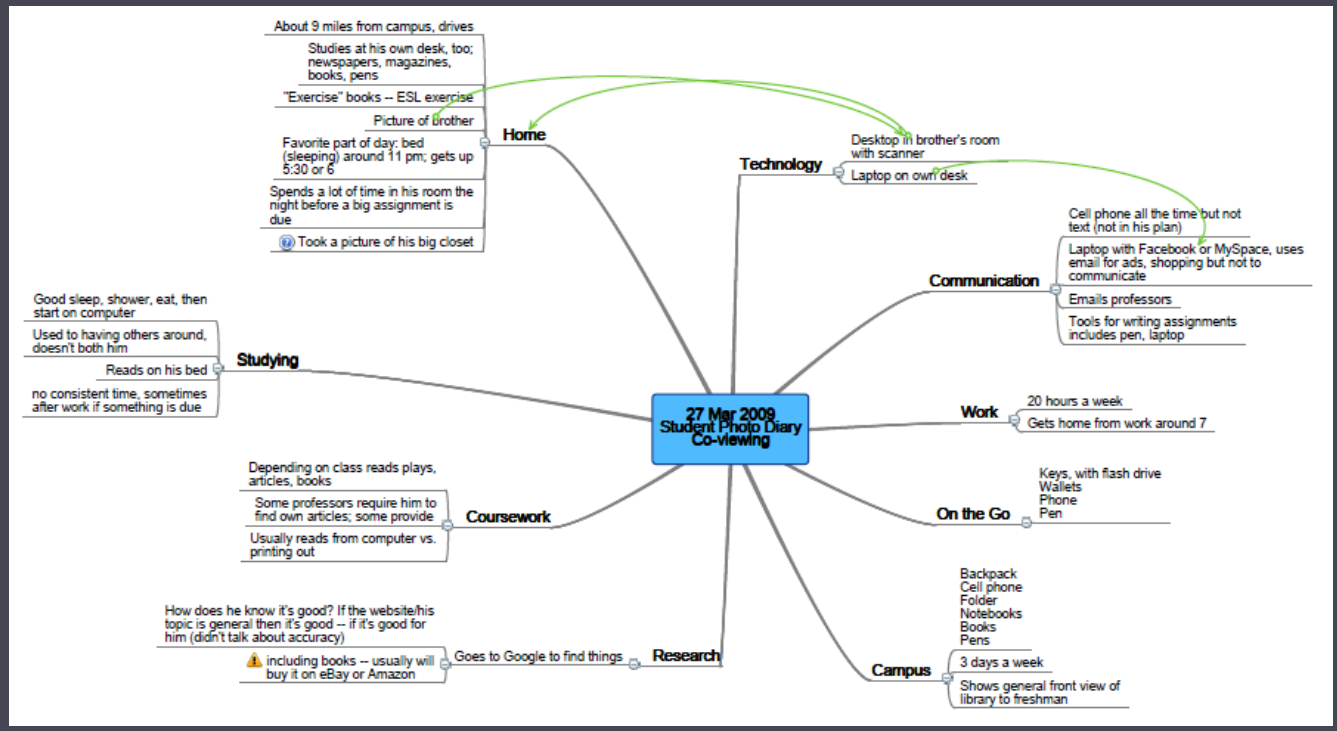
Research Meeting Summary

- Topic of Meeting
- What Did We Learn?
- General Observations
- Patterns Found in the Data
- Exceptional or Interesting Cases
- Hypotheses about the Data
- New Research Questions (either to use on this data or for a study later)
- Service Implications (e.g. how can library address any problems observed)
- Additional Analysis Required?

Storyboarding



Mental Mapping



Master list of proposed service changes.

- Rank changes for importance and feasibility.
- Use these lists to communicate with stakeholders within the library.
- Start conversations about how to effectively implement new service initiatives.

- Illinois Wesleyan
  - 60+ Recommendations
  - ~30 High Priority

Example: Master List of Services Implications

After generating a list of potential services changes, we went back to the data to list reasons why each was important, and members of the research team ranked each potential change by importance and feasibility to determine which ones to pursue.

Potential Service Change	Why Important?	Importance	Doability
Continue to strengthen relationships with faculty, explaining library services and resources.	Professors see students 1 - 4 times weekly, assign grades, and are seen by students as experts. If professors recommend librarians, library resources and services, students may pay attention. Also, as faculty learn about services/ resources, this may impact how they design assignments	3	2
Work with faculty on developing assignments (e.g. faculty workshops, informal sessions)	There is a wide range in quality of assignments; not all faculty are as familiar with our resources as they could be and so assignments aren't nicely using our collection or as defined as they might be; see above	3	1.5
Develop example assignments that could be built from underutilized resources. Send these out to faculty as "ideas to consider"	There is a wide range in quality of assignments; not all faculty are as familiar with our resources as they could be and so assignments aren't nec'ly using our collection or as defined	2	2

For more information:

Website: www.erialproject.org
Toolkit: www.erialproject.org/publications/toolkit/
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NERCOMP SIG evaluation form: bit.ly/nercomp_research

Look for the ERIAL project book in spring 2011:
College Libraries and Student Culture
by Andrew Asher and Lynda Duke, eds.