



Observing Student Researchers In Their Native Habitat

ER&L
February 2007

Agenda

- Objective – Why do a study?
- Methodology – How the study was conducted
- Findings – What we learned
- Recommendations – What your library can do

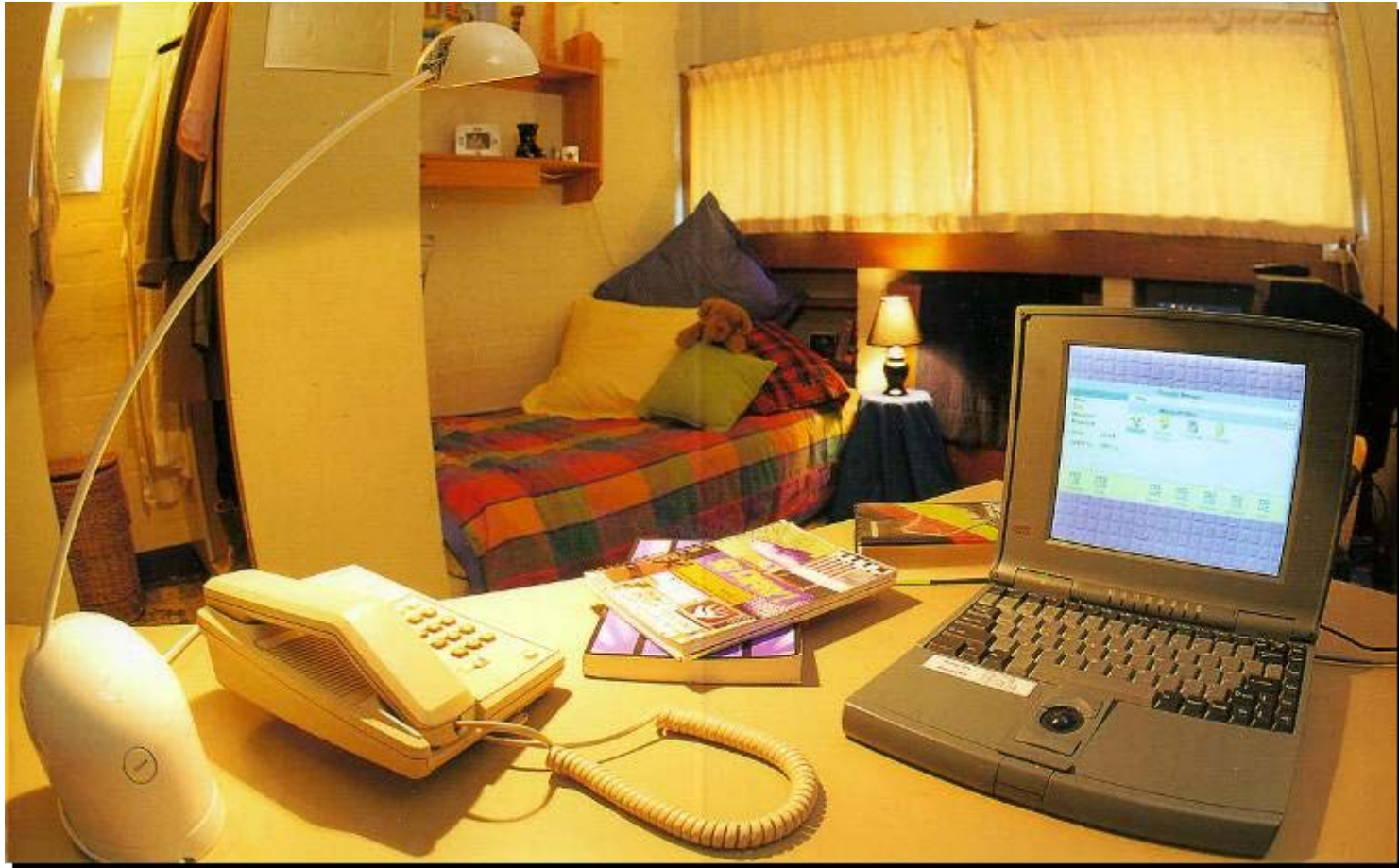
Objective – Why Do a Study?

- Learn how relevant library resources are in students' study habits
- Learn where library resources fit in students' research process
- Learn how students access and select resources

Methodology – How the study was conducted

- A contextual inquiry
 - A simple, inexpensive method
 - Real students observed doing real research for actual course assignments in their native environments
- Onsite & remote

Where did we go?



Apartments

Who did we observe?

- Undergraduates
- Graduate students
- Variety of disciplines
- Mix of novice and sophisticated researchers

How did we find students?

- Round 1

The image shows a collage of newspaper advertisements. A large magnifying glass is centered over the middle advertisement. The visible text includes:


- Top Left:** "The apartments are under construction and will be completed next fall. You can view floor plans, obtain sign-up information for the new apartments at www.u.edu/tw."
- Top Middle:** "was required to acquire five rental properties from the Chesterfield Hills neighborhood. The neighborhood is bounded by Grand River Avenue, Michigan Avenue and Highland Avenue and is across the street from the development."
- Top Right:** "the area because enrollment in the school system has declined for at least the past 10 years. Not everyone is going to want to sell their rental property and it's going to take a bit of coaxing to get everyone on board, Schaefer said."
- Middle Left:** "Specials" and "Pizza for two \$15.99, daily 12 Bottles of beer \$2.75". "Okemos (12 miles east of the Meridian Mall)".
- Middle Center (Magnified):** "Have a research assignment? **GET PAID** FOR DOING YOUR HOMEWORK!!! Participate in our study and receive a \$50 VISA gift card for 2 hours. Sign-up at: <http://tinyurl.com/yjh3pv>"
- Middle Right:** "Your friends are Here! What better reason to... **Karaoke T** — Good times, Award Winning Burgers & Pizza 27 Beers on tap No Cover! 9pm-1am"
- Bottom Left:** "its per"
- Bottom Center:** "FALL LEASING P" and "Nov. 3rd 2006 12-5pm"
- Bottom Right:** "Apartmente"

How did we find students?

- Round 2

MSU Flyer

Earn \$50 for study



Have a research assignment? Get paid to do your homework. Participate in our study and receive a \$50 VISA gift card for 90 minutes of your time. Flexible scheduling. Click this ad to learn more...


Facebook

home search browse invite help logout

Mikaelyn!


Feed Preferences

Shanael Hardy added a new photo to a group 8:08pm




Abandoned Building Explorers
138 photos
a group by Scott Dietrich

Shanael Hardy created a group. 7:48pm




Petition to Facebook to cut off Mark Zuckerberg's balls and put them in a jar
Common Interest - Health & Wellness
Mark Zuckerberg is a filthy asshole, as are all the...
see more

Michelle Alber and Tim Wacker are in a relationship. [Share +]



Michelle Alber and Tim Wacker are now together.




Michelle

Tim

Shanael Hardy and Georg Schuttler are attending ESPN Monday at MSU. 7:08pm [Share +]

Shanael Hardy and Georg Schuttler are going to the event ESPN Monday at MSU on February 24th. It starts at 10:00am, and could last until 12:00pm. Hosted by Breslin Center, it's opening at Breslin Center. So far 523 people have been invited.




event photo

Find Your Friends hide

Use our contact importer to find friends you didn't know were on Facebook.

My Status edit



Mikaelyn is blah.
Updated 14 minutes ago

Birthdays see all

Today
De'Andra Jones
Laurena Deak

The Next Step see all

Use Facebook Mobile to look up info from your phone. Send and receive Facebook messages on the go!

Screening

- Zoomerang survey

Student Questionnaire

We are conducting a study of research habits of college and university students for a company that develops research solutions. The name of the company is not being revealed in order to ensure the study results are not biased. The company is listed on the New York Stock Exchange and was recently named one of the nation's 200 best small companies by Forbes Magazine. The name of the company will be revealed at the end of each participant's session.

We are looking for students that are willing to be observed online while doing research for an academic assignment. The purpose of the study is to assist with the development of new research solutions.

Participants will receive a \$50 Visa gift card for a 90-minute session.

The study will be conducted over the internet. Participants are required to have access to the Internet and a telephone.

If you are interested, please fill out the questions below. If you are selected for the study, you will receive a confirmation within the next few days which also confirms the date and time for your participation.

1 Which college or university are you enrolled in?

2 What degree are you pursuing (and what year are you in)?

- Bachelor's (Freshman)
- Bachelor's (Sophomore)

Screening

- Gmail account for anonymity

The screenshot shows a Gmail interface. At the top, there are navigation links for Google, Gmail, Calendar, Photos, Docs & Spreadsheets, Groups, and all my services. The user's email address is uxdgroup@gmail.com. The main content area displays an email titled "Re: Research Habits Study -- Tuesday at 4:30pm". The email is from the "User Experience Design Group" to Megan, dated Feb 5. The body of the email contains the following text:

Thanks Megan. A session has been scheduled according to the when you indicated being available.

Your session is scheduled for Tuesday February 6th at 4:30-6:00 pm.

Please be prepared to conduct the research for your course assignment at this time. I will simply observe your research session remotely using UserVue, a software application designed explicitly for this purpose by TechSmith, and ask a few questions over the phone during the session. The findings from this study will inform designs for our company's future products.

Please reply to this message to confirm your participation. Also, please confirm the phone number to use for your session. In exchange for your participation, you will receive a **\$50 VISA gift card**. At the conclusion of the session, I can tell you about the company conducting this study and how the findings will be used.

Thank you,
John

The interface also shows a sidebar with navigation options like Compose Mail, Inbox, Starred, Chats, Sent Mail, Drafts, All Mail, Spam (39), and Trash. There are also action buttons for the email, such as Archive, Report Spam, Delete, and More actions... The right side of the email view includes options for New window, Print all, Expand all, and Forward all, along with a section for Sponsored Links.

Capturing the sessions

Observation Protocol - Ken (J...)

File Edit View Insert Format Tools
Table Window Help

75%

Times New Roman 12

Video ends. Back to youtube video search results.

Goes to MSN.com...flips back to FoxNews.com tab...gets ad pop-up and ignores it completely. Checks the weather. Back to review more of same article. Jumps back to youtube.com. More sexy ads on page.

Pastes URL for foxnews article into Word and records date accessed. Copies entire article and pastes into Word. Copies part of transcript and pastes into Word.

Goes to CNN.com and searches "bush katrina"...reviews results list.

Goes back to fox and searches "bush katrina".

Compares search results from CNN and Fox. Explains what he's doing.

Goes to CNN article and view it in a window over fox news search results page.

Views fox article.

Page Break

Page 5 Sec 1 5/9 At 3.4

Session in progress

USERVUE Show Chat ** Your screen is being shared **

Search Results: bush katrina Windows Internet Explorer

Search Results: bush katrina

CNN.com - Site Search - Mozilla Firefox

Getting Started Label Headlines

Issue, said global warming is "very likely" man-made, according to a new report obtained Friday by The Associated Press.

2. **Thursday, February 1** (02.01.2007)
 GAITHERSBURG, Md. — Gunfire rained across Casa City early Friday as fighters from the ruling Palestinian faction Hamas fought a pitched battle with Israeli forces near a Hamas stronghold.

3. **Audit: Millions in Iraq reconstruction aid wasted** (01.31.2007)
 Tens of millions of U.S. dollars have been wasted in Iraq reconstruction aid, some of it on an Olympic-size swimming pool ordered up by Iraqi officials for a police academy that has yet to be used, investigators say.

4. **New Orleans mayor: Where is the promised money?** (01.29.2007)
 About half of New Orleans' residents have returned since Hurricane Katrina, but red tape and race and class issues have held up recovery efforts, Mayor Ray Nagin said Monday.

5. **Nagin: Class and race issues killing New Orleans' recovery** (01.29.2007)
 Mayor Ray Nagin told a Senate committee Monday he doesn't see the will to fix his hurricane-battered city when compared with the billions spent on the war in Iraq.

6. **Monday, January 29** (01.29.2007)
 BAGHDAD (CNN) — A U.S. soldier was killed Monday when his Humvee rolled over northwest of Nasirya, a U.S. military statement said.

7. **Friday, January 26** (01.26.2007)
 WASHINGTON (CNN) — Two of President Bush's top advisers, Karl Rove and Dan Bartlett, have been subpoenaed to testify as possible witnesses in the defense of former White House aide Lewis "Scooter" Libby, although it remains unclear whether either man will actually be called to the stand, a legal source familiar with the case told CNN Friday.

Alternative to Open Back Surgery

Markers

Set a Marker

Help

Start Our Programs Is Back... CNN.com - Site Search... Search Results: bush... Click here to find out... 12:51 PM

The student view

The screenshot shows a Microsoft Internet Explorer browser window displaying a Google Scholar search for "user experience". The browser's address bar shows the URL <http://scholar.google.com/scholar?q=user+exp>. The search results page is titled "Scholar" and shows "Results 1 - 10 of about 754,000 for user experience (0.35 seconds)".

On the left side, there is a list of authors: [S Rosenbaum](#), [P Rohn](#), [D Humburg](#), [P Tec](#), and [I Associates](#).

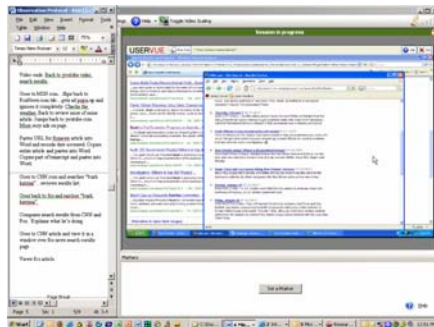
The search results include:

- Web Navigation: Designing the User Experience - group of 2 »**
J Fleming - National Geographic - oreilly.com
Web Navigation: Designing the **User Experience**. By Jennifer Fleming ... of, 4-6. Return to Web Navigation: Designing the **User Experience**. ...
Cited by 147 - [Related Articles](#) - [Cached](#) - [Web Search](#)
- A Toolkit for Strategic Usability: Results from Workshops, Panels, and Surveys - group of 6 »**
S Rosenbaum, PJA Rohn, DJ Humburg, P Tec, IUEJLH ... - Ann Arbor, 1855 - teced.com
... Humburg, Principal Tec-Ed, Inc. **User Experience** JL Humburg Associates PO Box 1905 Siebel Systems, Inc. 480 Lytton Avenue, Suite 7 Ann ...
Cited by 56 - [Related Articles](#) - [View as HTML](#) - [Web Search](#) - [BL Direct](#)
- Learning from user experience with groupware**
CV Bullen, JL Bennett - Proceedings of the 1990 ACM conference on Computer-supported ..., 1990 - portal.acm.org
Page 1. LEARNING FROM **USER EXPERIENCE** WITH GROUPWARE Christine V. Bullen
Center for Information Systems Research MIT Sloan School ...
Cited by 69 - [Related Articles](#) - [Web Search](#)
- Experience prototyping - group of 12 »**
M Buchenau, JF Suri - Proceedings of the conference on Designing interactive ..., 2000 - portal.acm.org
... What is the essence of the existing **user experience**? ... As an observer of **user** evaluations, one knows very quickly if the designed **experience** is a good one. ...
Cited by 89 - [Related Articles](#) - [Web Search](#)
- Guiding Interactive Drama - group of 3 »**
P Weybrauch - 1997 - reports.archive.adm.cs.cmu.edu

The browser's status bar at the bottom shows the URL <http://scholar.google.com/scholar?hl=en&lr=&q=related:5gE1UN5dKHID:scholar.google.com/> and the Internet icon.

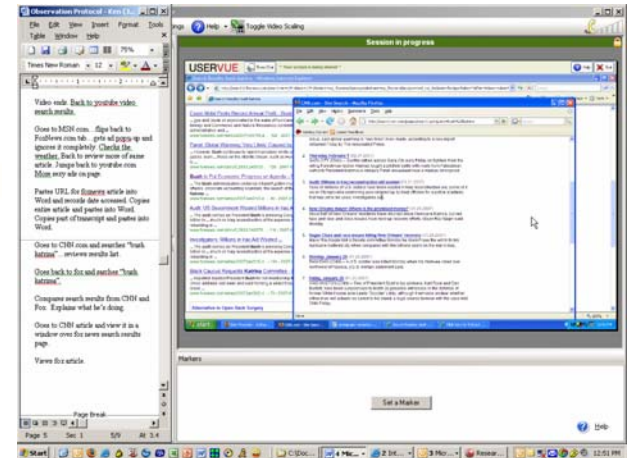
On-site observation

- On-site observation = more complicated
 - Laptop
 - UserVue – to capture
 - Skype & Microphone – to record audio
 - Broadband wireless card – for Internet access



Remote observations

- Remote = simpler
 - Computer with Internet connection
 - Phone
 - UserVue



Observing remote sessions

Research Habits - Ken - UserVue Facilitator

End Session Invite Observers Settings Help Toggle Video Scaling

Participant Chat

Participant connected

*** Session started ***

Send

Observer Chat

Connected observers:

Serena

using the web.
Serena says:
k
Facilitator says:
Versus digital immigrants
Serena says:
wow -- someone using facebook for homework
Facilitator says:
Yeah, his team created a group in Facebook to share information.
Facilitator says:
Fascinating that he landed on a library page but it couldn't deliver full text so he goes to Google to help him get to the full text.
Serena says:
path of least resistance
Serena says:
did you set a marker?
Facilitator says:
Yes.

Send

Session in progress

USERVUE Show Chat ** Your screen is being shared **

Chicago Defender / Commentary - Mozilla Firefox

http://www.chicagodefender.com/page/commentary.cfm?ArticleID=10315

Getting Started Latest Headlines

National	International	Editorial	Commentary	Entertainment	Health	Religion	Auto	Business	Sports	Cuisine	Bookmark	Photo Galleries	Community	Calendar	Sign up for our e-mail newsletter	Email	Submit
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JAMES CLINGMAN: Okay, Martin, you can go back to sleep now

by James Clingman
January 26, 2007

Sorry for waking you up every year to celebrate your birthday, despite the fact that you would not be welcomed at some of the celebrations on your behalf. After all, your fiery and provocative rhetoric concerning the economic condition of your people is not what the sponsors of those celebrations want in return for their support.

No, they don't want to hear you call for a redistribution of wealth in this country: higher wages, equity in public sector contracting, and certainly not a word on stopping this ridiculous war in Iraq. As I recall, you spoke against the Viet Nam war exactly one year prior to being assassinated. Oh yes, in your final speech you also told your audience to boycott various products in response to unfair treatment in the marketplace. No, Martin, it would have been a waste of your time to have made the rounds to those Kuu ba ya hand-holding celebrations of your life.

Many of the folks that attended MLK events, as they have for years, were only interested in soaking the dream alive. They are not concerned with carrying on the work you started and moving it to the next level; they merely want to reuse what you did and what you said, moult your loss, and then go home and wait for next year's MLK Day.

Despite your being an action-oriented leader, many of our so-called leaders today are content to just talk the talk. And you know what, Dr. King, every year it seems the number of

NEW FEATURE: Chicago Defender launches Chicago Defender News Video

NEW WEB FEATURE! More

The Chicago Defender becomes the first Black news source in the nation to launch a video podcast. The first Chicago Defender video Black America Video Podcast features Liberia President Ellen Johnson-Sirleaf.

BLACK HISTORY EXHIBIT More

A Photographic Exhibit from the Treasured Archives of the Chicago Defender.

Chicago Defender Inside Black America Podcast More

What's on the mind of Oprah Winfrey, Marsha Eric O'Neal, Minister Louis Farrakhan, Congressman Jesse Jackson Jr., Newark President Cory Johnson-Sakal, and authors Robin Stone and Lynn Ruth LePore? Click here to listen!

Markers

Set a Marker

Help

Start | U.S. Ethics | Chicago Defender / C... | Homegroup | 1:12 PM

It's simple

- Find users
- Watch them
- Learn
- *Recording is nice, but optional*

Findings – What we learned

- How users decide which resources to use for their research
- How students use library resources
- How students are really using Google
- How social networking sites factor into student research



Student behavioral characteristics

- Experts at multi-tasking
 - Multiple research tasks/subtasks simultaneously
 - Simultaneous social interactions
- Not distractible (ambient noise/activities, advertising, pop-up, etc.)
- Various ways for capturing research (bib tool, notepad, Word, saving PDFs, etc.)



How they choose where to start their research

- Library outreach
- Course instructor
- Brand awareness
- And Google



How students use library resources



- Brand loyalty (irrespective of focus)
- Lack of distinction between databases
- Contextual linking
- Knowledge of ejournals and associated authentication issues




How students really use Google

- Primary research tool
- Supplement research
- Handy for look-ups

Google as a primary research tool

- Sufficing, when quality isn't a concern 
- Insufficiently aware of library e-resources 
- Bad experiences with library e-resources


Bad experiences with library e-resources

- Search catalog for articles
- Difficulty navigating e-resources web page 
- Difficulty discerning what databases to use for their particular research need
- Authentication issues

Google to supplement research

- Just check to see if anything else comes up

Google as a handy look-up tool

- Locate know resources
 - Known sites (NGOs, museums, etc.)
 - Major newspapers
 - Library resources 
- Get specific answers
 - General information about a topic
 - Definition of a term, e.g. p16 protein
 - Complete a citation for an article of interest

How social networking sites factor into student research

- For the most part, they don't
- One student mentioned using it for a group project as a means for communication within the group



Recommendations – What your library can do

- Increase the relevance of the library in students' research tasks by...
 1. Refocusing information literacy efforts
 2. Making resources discoverable
 3. Increasing awareness of databases

1. Refocus information literacy efforts

- Focus on library marketing rather than instruction
- Reach students in the context of coursework
 - In person in the classroom
 - Via instructor
 - Via course pages

2. Make resources discoverable

- Simplify e-resources web page design
- Address students perception that “the online catalog represents all library resources”
- Optimize for campus search engine
 - Students prefer to search over navigating extensive lists and categories
 - Leverages existing student brand awareness

3. Increase awareness of databases

- Offer databases on library pages by course and degree
- Library promotion of specific databases to students *and faculty* of specific disciplines, i.e. target marketing
- Include appropriate databases in course materials, especially on the course site

Conclusions

- Many resources and applications are used in concert to satisfy student research habits
- Awareness of resources significantly impacts effectiveness of student research efforts
- Comprehensive and accurate understanding of information resources is generally lacking
- Presentation of library resources is in critical need of improvement

“To be successful in today’s world, those who define and build [research solutions] must know how to fit them into the fabric of everyday life.”

Beyer & Holtzblatt

Thank you

John Law

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