Lessons Learned from Project Information Literacy

How College Students Seek Information in the Digital Age

Mike Eisenberg





1. Setting the Scene

- The information society
- Students in 2010...and beyond
- Project Information Literacy

2. Implications & Practical Recommendations

- Raise the critical thinking bar
- Library
- 3. Questions & Discussion

Setting the Scene



"Technology is the answer, of course"



"Technology is the answer, of course"

"Now...what was the question?"

The Question

How can we best help our students to learn – in order to be fulfilled and successful in the 21st century?

Technology – is not *the* answer. But...

- the world has changed
- our students have changed
- we must change.

Has education changed?

No.
Not much.
Not really.





A Vision of Students Today

- Michael Wesch, Kansas State University
- Cultural Anthropologist
- www.youtube.com/user/mwesch#p/u/7/dGCJ46vyR9o



Has the world changed?

Yes!
Much!
Really!



Global Internet traffic

http://internet-politics.andrewchadwick.com/media/T465098-Computer graphic of global internet traffic-SPL.jpg

especially due to

information & technology

Computers today are one million times more powerful than those 20 years ago.



Looking back 30 years...

- 1981 the personal computer
- 1985 the Internet
- 1995 the Web
- 1999 Wireless
- 1999 Google
- 2001 iPod
- 2005 YouTube
- 2006 Twitter
- 2010 iPad

In 20 years computers will be one million times more powerful than today!



looking ahead...

Increasingly, we will live in the physical world

in a parallel, INFORMATION universe.

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Students 2010

The Google Generation

The Google Generation

- Those born 20 years ago have never known a world without the World Wide Web!
 - 1989 Tim Berners-Lee invents the Web
 - 1993 CERN puts Web in the public domain
 - 1992 Mosaic browser
 - 1995 Netscape browser
 - 1999 Google



http://news.bbc.co.uk/2/hi/technology/7375703.stm

From Digital Immigrants to Digital Natives

The Google Generation

- Experiences
- Expectations
- Pace

Experiences Xbox, Wii, Playstation mobile of the second se Wifi playlis WWW \bigcirc 100s of channels Google

Expectations



Practical



Get in, get out Multitasking light of Speed Multiprocessing

Last minute

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What is it like to be a student in the digital age?





How Today's College Students Find & Use Information

Project Information Literacy

Alison J. Head, Ph.D., Research Scientist Mike Eisenberg, Dean Emeritus and Professor

The Information School University of Washington



Project Information Literacy

How college students define and operationalize research tasks





- Ongoing, cross-campus study in US; Course Related + Everyday Life Research
- Social science methods (quantitative + qualitative)
- · Based in UW's iSchool
- Funding: MacArthur Foundation; ProQuest



How do students find information? How do they evaluate and use it? What difficulties do they encounter?

PIL 2010 Research Study

<u>"The Movie"</u>

What keeps us talking at PIL ...

New milestone

- Based on collective sample—over 10,000 respondents
- This year's findings validate previous PIL findings
- For example:

Information-seeking driven by familiarity and habit - use same set of sources, similar order of preference

60 510 410 31



2010 Survey, n=8353 2009 Survey, n=2318

Course research



2010, n=8353 2009 Survey, n=2318

Everyday life research

and from the 2009 study...

Wikipedia

Wikipedia - <u>www.youtube.com/user/ProjInfoLit#p/u/2/9nOe26xY1zM</u>



Wikipedia

- To obtain a summary (82%)
- To help to get started (76%)
- Interface is easy to use (69%)
- To find meaning of terms (67%)
- Comprehensible explanations (64%)

85% of students uses *Wikipedia* for background material - 2009 Survey




Use of Time

- **Procrastination?**
- <u>http://www.youtube.com/user/ProjInfoLit#p/u/3/OBMVU</u> <u>qnPank</u>



Meet Jessica

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Behavior

- Curious and engaged, wants to learn something new—at least in the beginning.
- Deals with constraints (grade, time, expectations).
- Heads off staggering amounts of information.
- Traverses information landscape with small compass.
- Risk-averse and plays it safe (course readings).
- Self-taught and independent—does leverage strategies from high school years.
- Takes a consistent, thoughtful—albeit narrow—approach.
- Waits until the last minute.



Expectations

- Perfect source exists somewhere - just have to find it.
- Best approach? Just Google it.
- On first page of results? Awesome.
- Up-to-date and current?
 Essential.
- But please make it brief.



"Want it just in time, find it just in the right place."

Good Source = Findable + Full-text

Good Source = Findable + Full-text + Free

Surprise (to the PIL team):

Evaluates information with a wary eye



Web evaluation

- Take little at face value
- Use a blend of formal + selftaught criteria
- Apply more than 7 criteria when evaluating for course work (54%)
- Don't accept Web content on its own

Asks for help

For course work:

- Instructors (49%)
- Classmates (32%)
- Librarians (11%)

For personal use:

- Friends/family (61%)
- Classmates (43%)
- Librarians (5%)

What is difficult about research — from start to finish?

"The longest part of research is getting to the question to ask."

Course research difficulties

- 1. Getting started (84%)
- 2. Defining a topic (66%)
 - 8. Narrowing down a topic (62%)
- 4. Sorting through irrelevant results (61%)

2010, n =8,353 | 25 campuses

Everyday life research difficulties

- 1. Sorting through irrelevant results (41%)
- 2. Not being able to find the "answer" (33%)
- 3. Determining credibility (26%)
- 4. Evaluating sources (24%)

2010, n =8.353 | 25 campuses

Defining the task and assessing the process:

harder than finding!

Difficulties: Stages



Why is course research difficult?



Students are more practiced at writing techniques than research strategies

Research routines

- Techniques for writing papers—thesis statement (58%), own perspective (55%)
- Fewer routines for research—organizational system (43%), search terms (36%)
- Carried over approach from high school to college, (according to most interviewed)
- One in 10 interviewees learned from campus librarians

Most don't fully understand the research process and what is expected

Situation with inherent risk

- Trouble with nature and scope of assignments
 - \checkmark Narrowing a topic (62%) what if a topic fails me?
 - ✓ Desire for comprehensive investigation (78%)
- Unsure about performance
 - ✓ Little basis for self-assessing, i.e., good job? (48%)
 - \checkmark Finding answers to prove research completed (76%)



Web 2.0

Slow coming to the classroom?

Web 2.0 for course work

- Google Docs (48%)
- Online forums (26%)
- Wikis (18%)
- "Used in past 6 months" = first half of 2010 Social bookmarking (10%)

For everyday life research

Facebook (70%)

one additional piece of the puzzle

PIL Handout Study (July 2010)



http://www.youtube.com/watch?v=gEsyQnM5P4o

Implications & Recommendations

- 1. Raise the critical thinking bar.
- 2. Re-think and energize library as a active and engaged in student learning.

1. Raise the critical thinking bar



by integrating information & technology skills into course expectations, assignments, instruction, and learning.

1. Raise the critical thinking bar

- Ensure that students have essential information literacy skills.
- Integrate information literacy skills into course expectations, assignments, instruction, and learning.
 - Go "beyond reading" students should be able to process information in all its forms.
 - Go "beyond writing" students should be able to produce of information and knowledge in all forms.



- Students who think.
- Students who are effective (and efficient) at using, processing, evaluating, and producing information and ideas.

Students who continually move up the "information spectrum"



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- Address plagiarism and new challenges in terms of credibility, authority, trust, intellectual property.



- Address plagiarism in terms of credibility, authority, trust, intellectual property.
- Create a "culture of citing."

Fighting Plagiarism: Creating a Culture of Citing

- Model citing in teaching and presenting.
- Show "bad" examples exaggerate plagiarism.
- Have students cite sources all the time.
- Expect citing in class discussions as well.
- Do not accept work without citing.
- Focus on citations in context more than bibliographies.
- Require "annotated" bibliographies with annotations of "why" students selected a particular source as well as their "credibility" analysis of the source.

- 1. Raise the critical thinking bar.
- 2. Re-think and energize library as a active and engaged in student learning.

2. Re-think Library

- Library = the physical and virtual information infrastructure of the college
- Key Resources
 - eReserves
 - ✓ Articles and Article Search Engines

Services

- ✓ 24/7, virtual and physical
- Digital reference
- Librarians
 - Information consultants
 - Tech in instruction & learning consultants
 - Information literacy teaching partners
2. Re-think Library Approaches and Priorities

- Change focus of instruction from resourcessearch to defining the task, using information and self-assessment.
- Embrace the Wikipedia!
- Be sensitive to "last minute syndrome."
- Offer consultation-coaching services—on demand.
- Work with faculty (and students) to improve
 - Assignments
 - Use of Web 2.0 capabilities.

2. Re-think Library Information Literacy Program

From partial, hit-or-miss to comprehensive:

- Defined
- Predictable
- Measured
- Reported

in conclusion



opportunities





Comments?

Thanks for listening!



Discussion?