Lessons Learned from Project Information Literacy

How College Students Seek Information in the Digital Age

Mike Eisenberg
Agenda

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

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.
Students 2010
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
What is it like to be a student in the digital age?
How Today’s College Students Find & Use Information

Project Information Literacy

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The Information School
University of Washington
Project Information Literacy

How college students define and operationalize research tasks

- Focus groups (7 campuses, n=86)
- Pilot survey (6 campuses, n=2318)
- Follow-up interviews
- Content analysis (28 campuses, n=191)
- Large-scale survey (25 campuses, n=8335)
- Follow-up interviews

- 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

“The Movie”
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
Course research

2010 Survey, n=8353
2009 Survey, n=2318
Everyday life research

2010, n=8353
2009 Survey, n=2318
and from the 2009 study...
Wikipedia

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

Seven out of 10 college students interviewed went to Wikipedia first for course-related research.

Students ignored faculty’s warnings about using Wikipedia all together. And just did not cite Wikipedia as a source in their papers.
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
All of this means that in today’s Wikipedia there is renewed value in old-fashioned expertise, whether to provide obscure details to articles that have already been carefully edited or to find worthy topics that haven’t been written about yet. Mr. Cock, for example, estimated that there were thousands of British Museum objects (among the eight million total) that would be worth their own Wikipedia articles but don’t have them.

Of the most important articles have been edited thousands of times over a number of years.
Use of Time

- Procrastination?
- http://www.youtube.com/user/ProjInfoLit#p/u/3/OBMVUgnPank
Meet Jessica
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 + Free
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 + self-taught 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%)
3. 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:

closer than finding!
Everyday life research difficulties

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2010, n = 8.353

<table>
<thead>
<tr>
<th>Task Definition</th>
<th>69%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Assessment</td>
<td>41%</td>
</tr>
<tr>
<td>Search</td>
<td>30%</td>
</tr>
<tr>
<td>Using Information</td>
<td>25%</td>
</tr>
</tbody>
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Course work
Personal use

0% 25% 50% 75% 100%
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
  ✓ 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%)
  ✓ 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%)
- Social bookmarking (10%)

For everyday life research

- Facebook (70%)

“Used in past 6 months” = first half of 2010
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 an 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.
Goals

• 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”
1. Raise the critical thinking bar

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

- 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 an 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 resources-search 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
  o Assignments
  o 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
Change
Questions?

Comments?

Discussion?

Thanks for listening!