Tech and the Future and All That Stuff

Prof. Mike Eisenberg
Agenda

1. Setting the Scene
2. Students – Audience – Customers
3. Technology – Infrastructure – Environment
4. Implications
5. Questions & Discussion
Setting the Scene
Setting the Scene

- Technology – is *not* the answer.
- Change.
"Technology is the answer, of course"
"Technology is the answer, of course"

"Now... what was the question?"
Brief Exercise

- Consider - all the technologies (systems, software, devices) that you currently use on a regular basis (professionally and personally)
Brief Exercise

✓ Which would you give up *first*?
✓ Why?
Brief Exercise

✓ Which would you give up *last*?
✓ Why?
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<tr>
<th>DIGITAL IMMIGRANTS</th>
<th>DIGITAL NATIVES</th>
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## Brief Exercise

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Change

Calvin thrives on making other people change!
Has education changed?

- Not much
- Not really
Has the world changed?

- Much!
- Really!
And looking ahead?
In less than 30 years...

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

Digital natives vs. Digital immigrants

• Experiences
• Expectations
• Pace
Experiences

Xbox, Wii, Playstation

Computer

Wifi

100s of channels

mobile

Facebook

playlists

txt
Expectations

On demand

Anywhere

24/7

Practical

Now!

Entertaining
A Vision of Students Today

- Michael Wesch, Kansas State University
- Cultural Anthropologist
- [www.youtube.com/user/mwesch#p/u/7/dGCJ46vyR9o](http://www.youtube.com/user/mwesch#p/u/7/dGCJ46vyR9o)
Project Information Literacy

National, large-scale study in the University of Washington’s iSchool

What is it like to be a student in the Digital Age?
Meet Christopher

✓ Curious and engaged—in the beginning.
✓ Looking for that “perfect source.”
✓ Need a summary more than anything else.
✓ Need something to get me started.
✓ I can do this on my own—self-taught.

“Want it just in time, find it just in the right place.”
Christopher’s Expectations

✓ It exists somewhere, just have to find it.
✓ On first page of results? Awesome.
✓ Up-to-date and current, absolutely essential.
✓ Findable, free, and full text = “good stuff”
✓ Wikipedia = just fine.

“Leveraging my functional anxiety.”

- Harvard Student, 2008 Discussion Sessions
Wikipedia

- Wikipedia - [www.youtube.com/user/ProjInfoLit#p/u/2/9nOe26xY1zM](http://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.
Findings that keep us talking at PIL

- #1 source = Google 96%
- Student strategy = efficiency vs. a librarian strategy based on thoroughness.
- Pedagogical goals of deep learning appear at risk - students’ research is highly contextual with the goal of passing classes.
- Procrastination ~80%
Time

- Procrastination –
- [http://www.youtube.com/user/ProjInfoLit#p/u/3/OBMVUqnPank](http://www.youtube.com/user/ProjInfoLit#p/u/3/OBMVUqnPank)
Survey of Valued Skills

- Problem Solving
- Information Use
- Speaking
- Independent Work
- Technology
- Group Work
- Writing
- Reading
Students – Audience – Customers

Summary

- Wide range: from immigrants to natives
- Overloaded
- Goals-oriented
- Use Google and Wikipedia
- Value problem-solving, critical thinking
Technology – Infrastructure – Environment
Computers today are one million times more powerful than those 20 years ago.
In 20 years computers will be one million times more powerful than today!
UW Learning Systems

- Catalyst
- Adobe Connect
- DocuTek Eres

- Blackboard
- Moodle
- Facebook
- Wordpress
- PB Wiki
- Second Life
- And more…
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Example
On Campus Class

INFO 200
Intellectual Foundations of Informatics

https://courses.washington.edu/info200e/

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Example

Online Class

IMT 525
Information Management & Technology in Sports

https://courses.washington.edu/isports

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Cutting Edge and Emerging Technologies
Wesch

Web 2.0 ... The Machine is Using Us

http://www.youtube.com/watch?v=NLIpOyXT_g
Personal Publishing
Personal Publishing

- Blogs
- Flickr
- YouTube
- Ustream.tv – live video streaming
- Twitter – live, short blogging

Wikipedia currently has in excess of 14m articles contributors have written nearly a million new.

70% of bloggers are organ.

38% of blog.

YouTube

If YouTube were a country, it would be the third most-populated place in the world.

20 hours-worth of video is uploaded to the site every single minute.

comScore recently announced that the site had surpassed 100m viewers in the USA alone. They also reported that this US audience consumed over 6bn videos at the beginning of this year.

According to Youtube themselves, over half of users visit the site at least once a week.

Immersive Virtual Worlds
In Q4, Residents spent more than $100 million USD on virtual goods and services in Second Life.

http://blog.secondlife.com/category/economy/ 2/20/2009
Natal

www.youtube.com/xboxprojectnatal#p/u/0/nhQtbdmno7I

www.youtube.com/xboxprojectnatal#p/u/1/-_UzcnTYqc4
Social Networks

Facebook

According to Facebook’s internal statistics:

**Average User Figures**
- Average user has 130 friends on the site
- Average user sends 8 friend requests per month
- Average user spends more than 55 minutes per day on Facebook
- Average user clicks the Like button on 9 pieces of content each month
- Average user writes 25 comments on Facebook content each month
- Average user becomes a fan of 4 Pages each month
- Average user is invited to 3 events per month
- Average user is a member of 13 groups
MySpace

- Although now overtaken by Facebook, MySpace is the second largest social network, experiencing in excess of 60m unique users each month.

- MySpace apparently reaches 30% of UK adults aged 15-24 - it's been suggested that it's as common to have a MySpace account in the UK as it is to own a dog.

- According to Knol, MySpace has more than 115m active monthly users globally with, on average, 300,000 new people signing up to the site every day. Every user on average uses mobile devices. In six months, this is over 100m Facebook through mobile devices are almost 50% more active than those who don't.


Collaborative Spaces
Collaborative Spaces

- Googledocs
- Wiki
- Ning
- Wallwisher
- MS Live
- SharePoint
Personal Mobile Digital Devices
And beyond...
Intelligent Surfaces/Walls/Windows

- MS Surface
- iPad

Open innovation around intelligent walls, ceiling & floors in consumer homes!
Implications
Implications - Publishing

- Students are producers not just users of information and knowledge.
- Key skills - beyond writing to presenting in all forms.
- New challenges in terms of credibility, authority, trust, intellectual property.
Implications – Virtual Worlds

• Immersive interaction
• Sense of “place”
• Well beyond webinar, video-, audio-conferencing
• No mouse or keyboard!
Implications - Social Networks

• This is where they are.
• For younger students, much more important than e-mail.
• Community.
• Information.
• Communication.
Implications – Mobile Devices

• Any place.
• Always connected.
• Cyborgs?
and more generally...
one million times more powerful than today!
Life in the 21st Century

• Anyone
• Anywhere
• Anytime
• Any Form

A Parallel Information Universe
Implications

• From factory to individual
• Physical and virtual
• On demand
• At point of sale/use
• Flexible – customized - individualized
• Long tail products and services
• From teaching to learning
  – Content
  – Methods
  – Resources
  – Assessments
Implications - Institutionally

- Open marketplace
- Global competition
- Courses – programs – degrees
- Accreditation?
- Reputation/review systems
- Brand matters!
Brand
To Stay on Top

• Focus on customers – users in context
• Collaborate
• Be willing to change
• Be able to change
• Embrace the entrepreneurial spirit
• Keep looking ahead
• View problems as opportunities
I thrive on making other people change.
Thanks for listening!