Information Fluency in a Virtual World

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Provocations

• I was asked to provoke you today.
• That’s not so bad. I’ll be successful if you’re uncomfortable at some point.
• As such, what I say is not necessarily my personal opinion or the corporate position of SirsiDynix.
• It’s all good, if it makes you think.
What's Your Bread and Butter?
PUBLIC LIBRARY
LIKE WIKIPEDIA, ONLY IT TAKES 4 HOURS

BAD CIVIC AD CAMPAIGNS #32
Can we keep up with change?
Build in Format Agnosticism
No Quick Fixes
What is the scariest scenario for libraries?
I have an archaeology background . . .
The Emerging Economy

• 1800’s – Industrial Revolution arrived
• And so did a late century depression
• New laws and social modes emerged like unions, labour laws, licensure, etc.
• Nations could control their own destiny
• New professions rose to the top like scientists and engineers
The Emerging Economy

• 1930’s – Financial Revolution arrived
• And so did a mid-century depression
• New laws and social modes emerged like the SEC, Exchange Act, Williams Act, Bank Act, etc.
• Nations could still control their own destiny but international integration of trade and finance starts
• Other professions rose to the top like Bankers, CPA’s, financial analysts, and MBA’s, etc.
The Emerging Economy

• Millennium – Information and Knowledge Economy arrives (Yes it arrived a decade ago)
• And so does another new century depression
• New laws and social modes are emerging like copyright, DRM, privacy, and social networking sites
• Nations are not in control but participate in a global mosaic – Globalization - Glocalization
• New professions will rise to the top like librarians, information scientists, archivists, experience and learning software developers and CI pros, etc.
The Emerging Knowledge Economy

- It’s Global and International
- It’s interdependent
- Social neighbourhoods and nations
- Communities of practice and professional networks
- Interdisciplinary, cross-disciplinary discovery dominates (e.g. genome, life, stem cell, nano, etc.)
- Multi-ethnic, multilingual, multi-cultural
- Massive generational shift
- All major industries will be knowledge based
The Emerging Knowledge Economy

• Examples of Industries that are more knowledge dependent:
  – Agriculture – from R&D to market, Genetic engineers
  – Mining – from discovery through commodity trades
  – Energy – Petroleum, Hydro, Nuclear, Wind, Solar, etc.
  – Forestry, Pulp & Paper – Sustainability and Green
Being Globally Competitive

On Target

Minus 25K

Plus 20%

Target
Professions

• Big desktop savings!
• Accountants
• Lawyers
• Doctors and Allied Health pros
• Lawyers
• Military
• Psychotherapy
The Academic Opportunity

• Copyright
• API’s and Book Digitization
• Scholarships
• Research, e.g. Energy, cars, nanotech, cloning, stem cell, etc.
• Partnerships
• Collaborations
People are Changing

• Or our understanding of them is improving!
• The new human genome (Shyness, dyslexia, math, music, etc.)
• Human understanding – Bloom’s taxonomy
• MRI’s of reading
• Eye tracking, etc.
• And of course increases in IQ and decreases in fact based knowledge and mechanical skills.
Imaging techniques allow us to see which areas of the brain control language functions.
Eye Movement Changes
The BIG PICTURE Changes

How much of your activities related to information fluency and related to these and are your learners prepared?
Our Gaming Foundations
EverQuest / WoW – Their Gaming Adapted by the Military
Social Graph Platform Wars

Google / Open Social
("The Empire"?, "Coalition of The Willing")

Facebook
("Rebel Alliance" ?)

MySpace
("Clone Army"?)

Photobucket

* = announced Platform / API
** = unannounced Platform / API

& AMazon

Platform Wars insanity: Dave McClure, 12/12/07
The new Web 2.0 era distribution models remain largely untapped

Potential Reach Power and Network Effect
(Lowest Cost Per Customer/Partner)


CC BY-SA
The Sharing Economy
“Web 2.0 generally refers to a second generation of services available on the WWW that lets people collaborate and share information online.” Wikipedia

- Shared Pictures = 
- Shared Knowledge = 
- Shared Bookmarks = 
- Shared News = 
- Shared Videos = 
- Shared Everything =
Get Good at The Cloud

- Yahoo!
- AOL
- Bebo
- Google
- Microsoft
- News Corporation
- Facebook
- Zotero
- Zoho Docs
- Delicious
- Google Chrome
Science Info on the Go: Enhancing Traditional Sci-Tech Library Services w/ Mobile Devices

- Joe Murphy - Yale Science Libraries - joseph.murphy@yale.edu

Mobile devices help libraries meet the evolving information needs of the sci-tech community by expanding traditional services and exploring new opportunities.

### Enhancing / Expanding Services

**Mobile Reference = Answers on the go**

- Mobile librarians to meet the diffuse information needs of our specialized clientele.

- Email
- Instant Messaging
- Phone
- In person and outreach

### New Opportunities

**Text Messaging Reference**
- Answers from anywhere by SMS
- Expert assistance at point of need

**Social Networking**
- Mobile devices facilitate library 2.0 and social networking initiatives.

- twitter
- facebook
- flickr

### Considerations

- Choosing a technology
- Identifying New Workflows
- Establishing Management Models: Staffing, Training
- Exploring Best Practices for a Quality Service (shifting communication styles and user expectations)
Be Where Your Users Are
The Library Rebooted

- “The Library Rebooted” by Scott Corwin, Elisabeth Hartley & Harry Hawkes (Booz & Company)
- “Reinventing the Role of Research Libraries” by Paul LeClerc, Pres/CEO, NYPL
- “Why Libraries are Good Investments” by Stephen Schwarzman, Chm/CEO, The Blackstone Group ($100 million gift to NYPL)
7 Imperatives for Library Leadership

1. Rethink the operating model
2. Understand and respond to user needs
3. Embrace the concept of continuous innovation
4. Forge a digital identity
5. Connect with stakeholders in ways that pure internet companies cannot
6. Expand the metrics
7. Be courageous
What is at the heart of libraries?
Literacy

- Reading literacy
- Numeracy
- Critical literacy
- Social literacy
- Computer literacy
- Web literacy
- Content literacy
- Written literacy
- News literacy
- Technology literacy
- Information literacy
- Media literacy
- Adaptive literacy
- Research literacy
- Academic literacy
- Etc.
What am I hearing?

• I hear that folks feel that something is not quite right...
• Question where functions fit....of roles....of responsibilities...
• Question whether collaborative technologies “belong” in “academia”
• Question how to organize functions of a library when those functions are so engrained...

• Question where a job starts and stops....of where work starts and stops.....of skills required for jobs...
• Question if we’re preparing for what was or the future...
What are the Real Challenges?

• Scalability
• Retreading our colleagues - quickly
• Prejudice about users & Disrespect of users
• Demographic Mosaic Change
• Lack of Accountability
• Demand for Reproducibility and Proofs
• Coordination and Sharing
• Vision
• Leadership
• Financial Resources (excuse vs.reason)
My First Tribble
Kids on Social Crack
Watching The Kids & Their Toys
# Millennial Characteristics

**Be honest – They’re different**

<table>
<thead>
<tr>
<th>Principle / Values</th>
<th>More Friends</th>
<th>More Diverse</th>
<th>Respect Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimistic / Positive</td>
<td>Internet Natives</td>
<td>More Choices</td>
<td>Format Agnostic</td>
</tr>
<tr>
<td>Balanced Lives</td>
<td>Adaptive / Flexible</td>
<td>Civic Minded</td>
<td>High Expectations</td>
</tr>
<tr>
<td>Collaborative</td>
<td>Nomadic</td>
<td>Gamers</td>
<td>Experiential</td>
</tr>
<tr>
<td>Independent</td>
<td>Confident</td>
<td>Direct</td>
<td>More Liberal &amp; Conservative!</td>
</tr>
<tr>
<td>Multi-taskers</td>
<td>Inclusive</td>
<td>Patriotic</td>
<td>Entrepreneurial</td>
</tr>
<tr>
<td>Healthy Lifestyle</td>
<td>Family Oriented</td>
<td>Graphical</td>
<td>Achievement Oriented</td>
</tr>
</tbody>
</table>

Credit: Richard Sweeney, NJIT
(Not a complete survey. Sizes based on best figures I could find, but involved some guesswork. Do not use for navigation.)
Reminder: 500,000 A DAY!
A sustainable social network for life.
700,000 new ones a day

95% of students in clients like U of Toronto, NCSU, Stanford, etc.

Over 80% of all college and University students in North America.
e.g. Harvard
San Jose SU
McMaster
5,000 Library visits every night!
Reading is virtually fundamental in SL

By KATT KONGO
Staff writer

While most Second Life residents are aware of the variety of ways in which SL is used, from educational classrooms to treatment of mental illnesses, most would be surprised to learn that SL is now being used by an institution most think of as conventional — a library.

To be more exact, the Alliance Library System (ALS) is currently providing select services to the residents of SL. Initial services have, so far, consisted of book discussions and programs, such as one held Friday on the topic of "Getting Along with IT staff for Librarians and Educators."

ALS, which is based in East Peoria, Ill., will team up with Online Programming for All Libraries (OPAL) and utilize the programs currently offered online to librarians and libraries within SL. The two entities eventually hope to offer a plethora of library services.

In a telephone interview, Kitty Pope, executive director for the ALS, said the goal of their programs within SL is to reach people who might not otherwise go to a library. In giving background information about the ALS, Pope said the organization provides services to 285 libraries and is partially funded by the state of Illinois.

She added that ALS is one of the most innovative organizations, technologically speaking, and their philosophy is to mine new technologies to spread the gospel of library usage. "Innovation equals risk, innovation equals growth," she stated.

Lou Bell, the ALS’s director of innovation, read about SL in the blog of a librarian who was already a resident. She created an account, logged on with her avatar, Lorelei Junot, and saw a population of almost 200,000...

She found that SL had a few libraries, such as Wandering Yaffle’s "blacklibrary," but thought that library services could be expanded. "Since there is web programming through OPAL, why not offer that in SL?" she said.

Librarians from all over the country are gathering in SL to assist in setting up the virtual library. In fact, Pope expected criticism from many library blogs, but instead has found those in the field to be immensely excited about the possibilities afforded by SL.

Bell concurred, saying, "The response has been enthusiastic. People are volunteering and doing a

See BOOK, Page 20
### What people are doing

**Creators** publish Web pages, write blogs, upload videos to sites like YouTube.
- Young Teens (12 to 17): 34%
- Youth (18 to 21): 37%
- Generation Y (22 to 26): 30%
- Generation X (27 to 40): 19%
- Young Boomers (41 to 50): 12%
- Older Boomers (51 to 61): 7%
- Seniors (62+): 5%

**Critics** comment on blogs and post ratings and reviews.
- Young Teens: 24%
- Youth: 37%
- Generation Y: 34%
- Generation X: 25%
- Young Boomers: 18%
- Older Boomers: 15%
- Seniors: 11%

**Collectors** use Really Simple Syndication (RSS) and tag Web pages to gather information.
- Young Teens: 11%
- Youth: 16%
- Generation Y: 18%
- Generation X: 16%
- Young Boomers: 15%
- Older Boomers: 16%
- Seniors: 11%

**Joiners** use social networking sites.
- Young Teens: 51%
- Youth: 70%
- Generation Y: 57%
- Generation X: 29%
- Young Boomers: 15%
- Older Boomers: 8%
- Seniors: 6%

**Spectators** read blogs, watch peer-generated videos, and listen to podcasts.
- Young Teens: 49%
- Youth: 59%
- Generation Y: 54%
- Generation X: 41%
- Young Boomers: 31%
- Older Boomers: 26%
- Seniors: 19%

**Inactives** are online but don’t yet participate in any form of social media.
- Young Teens: 34%
- Youth: 17%
- Generation Y: 21%
- Generation X: 42%
- Young Boomers: 54%
- Older Boomers: 61%
- Seniors: 70%

*Data: Forrester Research*
Information Engagement Levels

- **Stimulate/Live**
- **Present/Teach**
- **Argue/Defend**
- **Act on/ Discuss**
- **Read/View**

*Dr. Thomas Davenport*
Learning Styles

- Visual/Spatial (Picture Smart)
- Verbal/Linguistic (Word Smart)
- Musical/Rhythmic (Music Smart)
- Logical/Mathematical (Number Smart)
- Bodily/Kinesthetic (Body Smart)
- Interpersonal (People Smart)
- Intrapersonal (Self Smart)

— Piaget, Bloom, Gardner, etc.
Information Fluency

• Standard Curriculum Components
  – Mathematics / Arithmetic
  – Science, Biology, Physics & Chemistry
  – English, Languages
  – History, Geography, Politics, Sociology
  – Music, Art, Phys ed.
  – Guidance, Religion
Information Literacy

K-12 Information Literacy Rubrics Defined. Where are the post-secondary rubrics?
# Serving Generational Diversity

<table>
<thead>
<tr>
<th>Baby Boomers</th>
<th>Gen. X</th>
<th>Echo Boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td>74 Million</td>
<td>49 Million</td>
<td>78 Million</td>
</tr>
<tr>
<td>Diversity as a Cause</td>
<td>Accept Diversity</td>
<td>Celebrate Diversity</td>
</tr>
<tr>
<td>Idealistic</td>
<td>Pragmatic / Cynical</td>
<td>Optimistic / Realistic</td>
</tr>
<tr>
<td>Mass Movement</td>
<td>Self Reliant / Individual</td>
<td>Self Inventive / Individual</td>
</tr>
<tr>
<td>Conform to the Rules</td>
<td>Reject the Rules</td>
<td>Rewrite the Rules</td>
</tr>
<tr>
<td>Killer Job</td>
<td>Killer Life</td>
<td>Killer Lifestyle</td>
</tr>
</tbody>
</table>

Bricks, Clicks and Tricks
Are we going to a totally build it yourself world?

Imagine IKEA merging with GM...
Newspapers: Assemble them yourself.

Now: Re-imagine the textbook, coursepack, etc.
Are we ready for the post book world?

http://www.flickr.com/search/?q=book+sculpture&page=44
Can we get our heads out of book-centric content?
Will Reading Matter?

Audiobooks and eBooks . . . And Google
Growing up from books,
But bringing them along…
Solve a Problem for Your Readers
Who Are Your Stars?

Do Your Users Know Their Names?
Embedded Technology
Filmmaker Rob Spence
Yes, Stephen did just say Lizard Spit
Can the Modern Director Use Data?

I used to think correlation implied causation.

Then I took a statistics class. Now I don't.

Sounds like the class helped. Well, maybe.
METABOLISM
The slower it gets, the faster it catches up with you.
Have You Updated Your Training?
Describe how your training is evolving.

Are any of your folks still calling it BI?!!
2.0 is about *play*
23 Learning 2.0 Things

- Week 1: *Introduction* and Adult Learning
- Week 2: Blogging
- Week 3: Photos & Images
- Week 4: RSS & Newsreaders
- Week 5: Play Week
- Week 6: Tagging, Folksonomies & Technorati
- Week 7: Wikis
- Week 8: Online Applications & Tools
- Week 9: Podcasts, Video & Downloadable audio
Five Weeks to a Social Library

- About Five Weeks to a Social Library
- Blogs
- RSS
- Wikis
- Social Networking Software and Second Life
- Flickr
- Social Bookmarking Software
- Selling Social Software @ Your Library
- Real mobile devices: iPods, MP3 players, video, smart phones, texters, Kindles, Sony Readers, etc.
- Podcasts, Streaming Media
- Special PC’s: disability compliance, streaming media, IM groups, VR (both kinds)
- Gaming stations

Build a Sandbox
Top 13 2.0 Apps for Librarians

1. Google Docs Suite
2. Meebo
4. Worldcat.org
5. Amazon.com
6. Del.icio.us
7. Bloglines
8. Zotero
9. Facebook
10. WordPress
11. MediaWiki
12. Ning
13. Twitter

All FREE
Be a Lab Rat!
Experiment, continuously
Is that the Internet in your pocket or are you just really smart?
Research and Insights

• Kent State U study of K-12 learners
• Huntsville Madison usability study
• Stanford and Syracuse Anthropology
• Personas work
• Normative Data Project
• Visualization and Facets
• UCD User-centered Design
• Etc.
SchoolRooms

• **An Example of BIG vision and Collaboration**
  • Built by Librarians and Teachers
  • Every Lesson
  • Every Grade
  • Every Standard
  • Every Subject
  • Every State
  • OPAC integration, localization
  • Scalable – 10 states started so far plus Boston PL and Philadelphia After-School Program
  • 5,000 K-12 Learners, 2600 schools in Ohio
  • Award Winning: Scholastic Best in Tech Award
Earth Science Room: The Amazing Sun

corona - the sun's atmosphere
chromosphere
photosphere – the light-producing layer
core – where the nuclear fusion of helium and hydrogen takes place
sunspot – dark patch that makes cooler gases

Explore a new learning portal for the K12 community

SchoolRooms™ by SiriusDynix is a new online portal that encourages K-12 students to
explore, discover, and learn anywhere anytime.

Designed to meet students' needs and to be a tool for parents who play an integral role in helping their children continue learning outside the classroom.

Using SchoolRooms, students can search (all at once):
Do no evil...or, Search, Ads and Apps

I ♥ my customers
Inventing the Future

• How much time do you spend having a clear view of it?
• How is it shared with your colleagues and clients?
• You can’t wait for everyone to change at once.
Re-Energizing Libraries
Be The Change We Want to See
A Third Path
The world is going to change with or without you... get ready.
What are the Real Challenges?

- Scalability
- Prejudice
- Lack of Accountability
- Reproducibility
- Coordination and Sharing
- Vision
- Leadership
- LAST __ __ Financial Resources
Context is King, not Content.
What is at the heart of libraries?

Learning
Interaction
Community
Innovation
Passion
Progress
“You have to sit by the side of a river a very long time before a roast duck will fly into your mouth.”

— Guy Kawasaki
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