

**Rough Notes for SAC 2007 Presentation (Snowmass, CO)  
"Information Literacy/Fluency in a Digital Age:  
A Literature Review"**

by George Lorenzo

***NOTE: See more live links to resources presented here in attached PowerPoint slides.***

**Introduction**

I am going to talk about Information Literacy in the Digital Age - which is a very fluid topic that changes frequently along with the latest developments related to the Internet and World Wide Web.

In the spirit of transparency - which, by the way, is something that is severely lacking on the web today - I think it is important to start by telling you a little bit about the work I do.

**SLIDE ONE**

About seven years ago I left the corporate life as a marketing manager for a manufacturing company to become an education journalist, researcher and author.

Today, I'm typically holed up in my home office conducting telephone interviews, doing research, and writing reports, newsletters and feature articles about education on a number of different fronts.

Namely: Educational Pathways  
[www.edpath.com](http://www.edpath.com)  
Monthly newsletter on Distance Learning and Teaching in higher ed - first issue was published in Jan. 2002

Lorenzo Associates, Inc.  
[www.edpath.com/research.htm](http://www.edpath.com/research.htm)  
An outgrowth of EdPath - Research and report writing for clients such as the Sloan Consortium, the EDUCAUSE Learning Initiative, the Rochester Institute of Technology Online Learning Department, Blackboard, Michigan State University, etc.

Surfing Through Noise  
[www.edpath.com/stn.htm](http://www.edpath.com/stn.htm)  
What I really would like to do if only I could get paid for it - more on this later.

All three of these activities have contributed to my knowledge base in relation to what I am going to talk about today, which is information literacy, or information fluency, or information

competency, or 21<sup>st</sup> Century literacy - call it what you like - but the bare bones definition is simply how to find, analyze and use information, especially digitized information in its myriad forms that are changing all of the time. It also takes into account computer literacy skills that students may or may not have.

**SLIDE Two**

In talking about this stuff I am going to share you with a lot of resources that I have accumulated over the past year or so, including some of the work I have accomplished in this area. In short, this is kind of a literature review on Information Literacy/Fluency and how it relates to our Digital Age.

**SLIDE Three**

I'll start with a report titled "Catalysts for Change: Information Fluency, Web 2.0, Library 2.0 and the New Education Culture," (download from <http://www.edpath.com/stn.htm>) which was generated through an assignment for the EDUCAUSE Learning Initiative. It begins with a synthesis of a variety of studies and interviews that all pretty much conclude that:

Our K-20 student body has a wide variety of information fluency capabilities, habits and skills. Some of the in-coming, so-called Net Generation students come from middle and high school programs that have excellent libraries and services that support the development of information literacy skills. Others, if not most, do not because both their school and public libraries have been radically underfunded in recent years.

Overall the complaint you will hear from most librarians and faculty alike is that today's students are overusing Google and Wikipedia instead of relying on the scholarly and authoritative research that can be found through the virtual library databases of which they are authenticated users.

Inside this report, there is an attempt to define Web 2.0 as a catalyst of change, exemplified by the growth of social networking and bookmarking, blogs, wikis, RSS feeds, Google's rise to power, videologs, etc. It also addresses how Web 2.0 is really all about the growth of human interactivity online on a global scale - new conversations, new forms of networking, new types of journalism, new virtual realities, the growth of the individual as publisher and the Long Tail, etc...

There's also an attempt to define Library 2.0, calling it a term that represents a myriad of viewpoints concerning how academic librarians can use Web 2.0 tools for enhancing their services and becoming more modern and more in tune with the new generation of students entering college.

How the roles of academic librarians are changing is discussed briefly, as their professional expectations have shifted, paraphrasing an interview with Scott Walter, an Associate Dean of Libraries at the University of Illinois at Urbana-Champaign: Scott says that at one level, they - meaning academic librarians, but this can also apply to all educators -

need to understand the new tools, the new databases, the new searching capabilities, the new bibliographic management software, the new ways of assessing and teaching information literacy skills; and the broad and differentiating backgrounds of their students' information literacy skills. At another level they have to be more proactive than they have in the past; they need to speak powerfully, persuasively and credibly about student learning outcomes, along with being cable of working with colleagues across campus to help faculty make modern information literacy instruction part of their teaching.

A key phrase that we often hear or read about is "information literacy across the curriculum."

This can be compared to "writing across the curriculum" (WAC), which is a pedagogical movement that began in the 70s as a response to a perceived deficiency in literacy among college students.

**SLIDE Four**

Another report that I'd like to point to is titled "The Changing Role of Intellectual Authority," by Peter Nicholson, president of the Council of Canadian Academies. I just discovered this a few days ago on a library blog. It's a great report, from a presentation at an Association of Research Libraries ARL meeting held in Ottawa, Ontario, Canada on May 2006. Nicholson says that:

- The traditional value of intellectual authority flowing from the process of peer review and elite consensus building is being eclipsed by information and communications technology, by globalization, and by a culture that to an unprecedented degree, celebrates and empowers the individual.
- While expert-based authority is being challenged, the volume of information and economic significance of knowledge are exploding. In addition, the "half-life" of active information keeps getting shorter and shorter due primarily to the sheer rate of information generation occurring online.

- A shift in the ecology of knowledge is upon us. We should be thinking of the infosphere as an ecosystem where different species are adapted to specific niches. Google, for example, delivers fantastic volume but the measure of relevance is still pretty crude. Blogs can give you an up-to-the-minute read on what's hot. Wikipedia and wikis in general can provide a great first cut at coherently organized material plus a good set of relevant links. But if reliability is a critical objective, then sources like Britannica, or research journals, or original documents become progressively more important.
- The relevant task is to educate the users of information - meaning all of us - as to what is right for what purposes.

**SLIDE Five**

What else should we do? A recent point of view piece in the current EDUCAUSE Quarterly, by Diana Oblinger, is a very good primer because it brings up a lot of important questions that educators need to be asking themselves in relation to information literacy in our digital Age. It is titled "Becoming Net Savvy." Here Diana posts at least 30 interrogative sentences related to what it means to be net savvy, which she defines as "knowing not just how to find information but how to upgrade know-how, find experts and collaborators, synthesize a complex array of information, make decisions, and take action."

She asks, in part:

- Do we understand how the different search engines work, what their biases are, and how their business models might influence the search results?
- Now that we've become a do-it-yourself culture, finding information for ourselves online, have we acquired the skills necessary to vet what we find?
- Are our students exposed to the opportunities, behaviors and tools that will help them grow their networks?
- What constructive uses of blogs, wikis or podcasts will help advance the reputation and visibility of an emerging professional?
- Do our students have the requisite technical skills? Or do we assume that because they have no fear of technology, they know how to use Excel or PowerPoint?
- Do we assume that because a high percentage of students own a computer, their PCs are capable of the tasks we ask them to complete?

**SLIDE Six**

Another piece of literature I'd like to point out to you is my book-in progress, titled "SurfingThroughNoise: Riding the Online Knowledge Wave."

Here I have posted the first chapter and plan on posting subsequent chapters if I can figure out a way to get paid for doing this. I have tried the traditional publishing route, with a well-established and successful NYC agent, unfortunately, who has only been able to provide me with rejection letters from publishers that we thought might be interested in publishing this book. In fact, overall, 2007 has been a year of rejection for this project, with at least four educational conferences that would have been great venues for this type of information rejecting my proposal to present.

So now my plan is to publish the entire book one chapter at a time, as I find the time in between paying projects, and build a kind of web portal to the sources of information that underlie the content.

In any event the purpose of this book project is to support my main thesis which is

- A. There is an overabundance of information (and growing quickly) available to us in numerous formats
- B. There is an enormous amount of noise that prevents us from finding significant, meaningful and personally fulfilling information online, and
- C. Because of all this, we need to - more than ever before - learn how to become information fluent.

This first chapter is meant to establish my voice as an professional journalist who is tackling this through deep research and numerous interviews with some of the leading web pundits, publishers, authors, academics and corporations who are writing about this stuff and working in the field. So you can see here, for example, lots of references already to interviewees.

**SLIDE Seven**

A fairly thorough outline for this book has been completed, comprised of ten chapters with the following titles:

- Chapter 1: What Is This World Wide Web?
- Chapter 2: Us, You And Who: It's A User Generation
- Chapter 3: Turning Down the Noise
- Chapter 4: Listen To Your Librarian
- Chapter 5: The Scholarly Web

Chapter 6: Search Engine Wars and Other Doors to Information  
Chapter 7: Getting By With a Little Help From Friends  
Chapter 8: The End Of Parking Spaces, Uncomfortable Learning  
Environments and Boring Lectures  
Chapter 9: Ubiquitous Computing And The Recording Of Everything  
Chapter 10: Nobody Really Knows What's Going To Happen Next

### **Slides Eight and Nine**

More Books

In addition to interviewing lots of folks for the aforementioned pieces that I wrote and am writing, I have also been reading a lot of these relatively new books on the market and seemingly growing in popularity, and lots and lots of articles, reports and blog posts that are about the Internet and WWW. In the publishing world, it seems that a new cottage industry that focuses on providing information about the web has grown overnight, with new books popping up every week. So in the spirit of being a trusty recommendation agent or filter, I will say that many of these books are very interesting, great reads, in my opinion, starting with:

"A Whole New Mind: Moving from the Information Age to the Conceptual Age," by Daniel Pink

"Ambient Findability: What We Find Changes Who We Become"  
by Peter Morville

"Convergence Culture: Where Old and New Media Collide," by Henry Jenkins

"Everything is Miscellaneous: The Power of the New Digital Disorder," by David Weinberger

"Five Minds for the Future," by Howard Gardner

"Fluency with Information Technology: Skills, Concepts and Capabilities," by Lawrence Snyder

"Higher Education in the Internet Age: Libraries Creating A Strategic Edge," by Patricia Senn Breivik and E. Gordon Gee

"Infotopia: How Many Minds Produce Knowledge," by Cass R. Sunstein

"Integrating Information Literacy into the Higher Education Curriculum," by Ilene F. Rockman and Associates

"Naked Conversations: How Blogs are Changing the Way Businesses Talk with Customers," by Robert Scoble and Shel Israel

"Student Engagement and Information Literacy," Edited by Craig Gibson

"The Cult of the Amateur," by Andrew Keen

"The Long Tail: Why the Future of Business is Selling Less of More," by Chris Anderson

"The Paradox of Choice: Why More is Less," by Barry Schwartz

"The Wealth of Networks: How Social Production Transforms Markets and Freedom," by Yochai Benkler

"Wikinomics: How Mass Collaboration Changes Everything,"  
by Don Tapscott and Anthony D. Williams

### **Slide Ten**

The Keen vs Weinberger debate published in the Wall Street Journal Online, in a way encapsulates the two schools of thought that represent where ICT may be heading:

Keen says, that "a flattened media is a personalized, chaotic media without that essential epistemological anchor of truth. The impartiality of the authoritative, accountable expert is replaced by murkiness of the anonymous amateur. When everyone claims to be an author there can be no art, no reliable information, no audience. Today on the web where everyone has an equal voice, the words of the wise man count for no more than the mutterings of a fool."

Weinberger says that "we don't open up the web at random. Instead we rely upon a wide range of trust mechanisms, appropriate to their domain, to guide us. . . The web is far better understood as providing us with everything: more slander, more honor, more porn, more love, more ideas, more distractions, more lies, more truth, more experts, more professionals. The web is abundance, while the old media are premised - in their model as well as in their economics - on scarcity."

Finally, for some of the latest information about how technology is being used by today's youth based on a survey of 18,000 kids from 16 countries, see New Global Study from MTV, Nickelodeon and Microsoft that Challenges Assumptions About Relationship Between Kids, Youth and Digital Technology.

The study found that while many young people have access to similar digital technologies, they use them in very different ways.

"Technology is adopted and adapted in different ways in different parts of the world -- and that depends as

much on local culture as on the technology itself," said Colleen Fahey Rush, Executive Vice President of Research for MTV Networks.

For example, Japan's reputation as a land in love with technology is different from the reality. Japanese young people live in small homes with limited privacy, generally don't have their own PC until they go to college and socialize away from home a lot. As a result, their key digital device is the mobile phone because it offers privacy and portability.

Unlike young people in other countries, Japanese kids and young people have few online friends. Japanese kids aged 8-14 have only one online friend they haven't met, compared to a global average of 5, while Japanese teenagers have only seven online friends they haven't met -- compared to a global average of 20. Japanese teens also used IM and email the least out of the 16 countries surveyed.

China has lower mobile usage amongst young people, a less-evolved print media market and a family life of no siblings with parents and multiple grandparents. As a result, the internet provides a rare opportunity for only -- and lonely -- children to reach out and communicate using social networks, blogs and instant messaging. In stark contrast to their Japanese peers, 93% of Chinese respondents 8-14 have more than one friend online they have never met face to face.

"Chinese kids inhabit a world very different from their parents, and because of that they would rather find advice and support through their friends than through family," said Fahey Rush. Amongst 8-14s globally, only in China was TV not the No. 1 choice. "This is encouraging 8-14-year-olds in China to select online over TV, a trend not witnessed in any other market," she said.

Now Moses is going to tell us about kids in the U.S.

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