# It's Not the Internet, It's the Information

## Net Savvy for the Information Highway

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**Synopsis:**
With every new technological development that appears on the horizon, we go through a long period of technological drool, where we tend to worship the tool and not the task. It's time for us all to get beyond terminal Web lust and consider what really matters - information, and how students can use it to enhance the learning process.

This entertaining and informative session asks participants to look at the Internet in a very different way - where the focus is on curriculum and information literacy, not just cyberspace and Web sites. It profiles a multi-level, integrated and interdisciplinary, problem solving scope and sequence for informational and technological fluency; identifies core process and content proficiencies; suggests a wide variety of real life projects based on community, work and family related problems; provides a series of sequential activities, resources, and recommended timelines; and gives ideas for student performance assessment. It also provides an organized and itemized list of over 3000 educational sites in ready to use bookmark format.

**Who is this guy?**
- what is he going to do?
- overview of Internet from different perspective
- present & future of Internet for schools
- outline information literacy curriculum

**The Internet Revolution: Do remember when?**
- you didn't see gee whiz articles about the Internet in magazines & newspapers
- surfing was done outdoors
- Java was something you drank
- the Web was TV or phone
- you didn't see "http://" written at the bottom of ads
- you didn't have to explain the @sign
- how long ago was that? 40 months
- it has been there for some time, but it's been flying below our personal radar

**It's spreading like wildfire**
- become the infrastructure for every company & industry in marketplace
- although many just don’t know it
- world's largest economic sector
- import surpassing oil & steel
- driving fundamental changes in business & community
- new reality for 21st C.

**What’s happening?**
- explosion in summer of 1995
- went overnight from geekhood to coolness
- from a special thing done by a small priesthood to public consciousness overnight
- abolished distance making everywhere here
- in '94 there were no commercial web sites
- now they number in the hundreds of millions
- everyone registering domains

- Yahoo gets 9000 plus submissions daily
- Web doubling every 90 days
- this is biological growth - like red tide/lemmings

**The Email explosion**
- 8.3 billion messages daily
- the equivalent of $2.2 billion worth of first class mail
- total volume by Post Office is up 5% since '88
- but business mail is down by 33% in same period
- only stuff that goes through is at-risk mail
- post office has become one giant piece of road kill on information highway

**What <u>is</u> happening?**
- cyberspace now middle class suburb
- this has happened in a world of $1000 computers where using telecommunications is like trying to suck peanut butter up a straw

**What <u>will</u> happen?**
- when we see $500 network computers combined with cable, wireless or fiber access
- will the number of users go up, down, or stay same?
- obviously it'll go up - this in part explains Internet fever & the rapid stock market

**Where are we heading?**
- we ain't there yet.....
- still hearing lots of criticism
- there are lots of problems related to slowness, security, under/over regulation, & potential overload
- this shouldn't concern us as eventually Net will handle them - but this takes time
- but despite problems, a critical mass has been reached - we must acknowledge the sheer magnitude of expanding base of true believers

**Nothing but Net**
- there is controversy over how many regular users there are but no controversy about the fact that the Internet is coming at us like tidal a wave
- it's hard to exaggerate importance
- it's opening communications to masses & quickly racing toward full-fledged status as commercial medium

**So What About Schools**
- is it really a technological revolution?
- since late 70's, billions of dollars & words have been spent
- in the 1999/2000 academic year alone, tech spending in K-12 public schools was estimated to be $10 billion – four times amount spent on textbooks

**So what's the problem?**
- we have endured years of hype & hope for electronic education, most of which has been undertaken with the very best of intentions
- unfortunately, the primary focus has been on tool & hardware du jour
- as a result, the revolution is still not here - why?
- we primarily focused on the tool not the application of the tool to curriculum
- we can't blame a pencil if child can't read or do math - & we can't blame the technology for failing
- the problem lies mainly with curriculum & teaching strategies
- so how does this relate to the Internet?

- it's deja vu all over again!

**What about the Internet?**
- many classrooms, students and teachers in America today still don't have regular access
- beyond that, classrooms are limited by the available equipment as only 20% of computers in schools today are capable of Graphical User Interface access to the Internet
- this is like having a single pencil for the entire school & expecting everyone to become pencil literate

**So what's the problem then?**
- it's not about access - this will happen
- very few doubt the power & potential of age-appropriate tech to transform education
- the problem won't be access to computers or the Internet
- no - the real problem is about the focus

**What's wrong?**
- instructional technology holds enormous potential for instruction & learning allowing access for any student in their native language to a world that they are very comfortable with
- it provides opportunities to take digital field trip & access to world wide resources
- this isn't problem - it's the mindset that we're applying to the technology
- we need to prepare for this new world - & we need a new mindset that focuses on new curriculum & new teaching strategies

**How is it being used today?**
- for most we use a proximal learning model - we put students close to the technology & hope or assume that somehow they will learn by osmosis - unfortunately, more often than not this does not happen
- the problem is that kids know more than teachers so the kids define the context & content
- so where do they go? to Wrestlemania, the Skoobie Doo home page, the NBA online, to live chat lines & to the Doom home page

**So what's the problem?**
- most schools today are little more than ISP's because students & teachers are using Internet services without an instructional context
- we have to ask whether this new media to be used for higher level learning or will it just become a new generation of educational Nintendo?

**What skills are needed?**
- skills needed to effectively utilize Internet are little different than those used in library - the only difference is that we have new technology, but we're despite this, we're applying an old mindset
- whatever the medium, users need set of analytical skills to process this information - but schools have never really mastered teaching of information literacy

**It's not the tool, it's the task**
- tools have no meaning without context - if I give you a shovel, you have no idea what the context is - but if I give you a shovel & tell you to dig a ditch, it has a context
- the Internet is a great tool , but for what?
- & this the crux of the problem - many teachers just give students the Internet & then get out of way
- this is a case of leap of faith, proximal learning!
- as a result, we are simply replicating old problems & processes with new technology - now we get animated, full color meaningless, gratuitous information more quickly - this is not learning!

- for learning to take place, it must do so inside a context

**The problem transcends technology**
- in the past, we gave kids an assignment on Saturn & got back the Encyclopedia Britannica
- along came optical disk technology - we gave kids an assignment on Saturn & got back the Grolier's Multimedia Encyclopedia
- now we give kids an assignment on Saturn & we get back the Internet
- this is simply information bulimia - they suck up the information & spit it out with little consideration of what it means - as a result, many of our students are suffering from intellectual & informational anorexia
- schools think that if they're connected they're doing it

**What's wrong?**
- instructional technology & Internet is being used to gather raw data but much of the writing & research is garbage
- information is not knowledge; & computer literacy doesn't necessarily cultivate information literacy
- it appears that the Internet breeds a kind of intellectual laziness
- the ability to find & list data is no substitute for figuring out how to organize information
- as a consequence, even in schools with full connections students can surf net but can't move beyond visiting home pages

**Geraldoization of information**
- the Internet is a wasteland of unedited data without any pretense of completeness - it lacks editors, reviewers, & critics - as a consequence it is predominantly not information, but noise
- the problem is that this is not recognized by most students & teachers
- this is the crux of problem - people have not been able to get beyond oohing & aahing about sites & suffering from terminal technodrool
- as a consequence, we really need to shift gears..... because it's not the Internet , it's the information that's important

**What is needed?**
- people need more than just raw data - they must look beyond the data for significance
- what skills are needed to see significance of data?

**An example**
- the Captain Picard model of problem solving
- how & when does he use technology?
- only when he has task to do
- he asks question of the computer based on problem
- access to the technology is transparent
- he then analyzes the data retrieved & turns it into knowledge
- then applies the knowledge to solve the problem
- then assesses process he has undertaken

**5 Stages of Information Literacy**
- Ask
- Access
- Analyze
- Apply
- Assess

**Stage 1 - Ask**
- comes out of a problem
- if you don't have a problem, you don't have a question
- at this stage you are defining problem
- problem solving fosters ownership of learning

**Stage 2 - Access**
- strategies more important than tools
- use driven by context created by questions
- searching techniques used to locate information
- techniques are media independent

**Stage 3 - Analyze**
- how credible is the information
- need to use the tripod model of analyzing - the stool won't stand unless it has 3 legs so the information can't be trusted unless there are 3 corroborating sources
- students must be able to look at information critically

**Stage 4 - Apply**
- use information to solve problem, write essay, do report, create graph, complete argument, make presentations
- at this stage, you must take what you've got & create products
- need to submit both raw material & analysis
- access is nothing if you can't both analyze & apply what you have obtained - to do this you need both technical & conceptual skills

**Stage 5 - Assess**
- have original goals been met?
- what has been learned?
- not just what has been learned but also how it was learned?
- how could process or product be improved?

**This is what the Internet needs to be about!**

**Information literacy**
- transcends Internet
- applies equally well to magazines, newspapers, textbooks, CD ROMS
- it's not the tool, it's the task
- it's an issue of headware not hardware

**It's not the Internet, it's the information**
- what we have is data explosion not knowledge explosion
- we have the best educated, least prepared generation
- we need the tools but we can't stop there
- we need repeated opportunities within formal, structured informational context

**Achieving information literacy**
- students need to work with the information resources that will bombard them throughout life
- this is not just about the ability to read & regurgitate facts - it's about knowing where to find facts & then how to use them
- it's about using real-life information resources for solving real-world problem
- my greatest fear is that if students view & use Internet way the view & use encyclopedias & CD ROM's we will continue to get what we've always got

**It's time to shift gears**
- we must move students & teachers from a quantitative to qualitative mindset
- it's not how much information they have, it's how much knowledge they've gained

**Making the shift**
- the bottom line is that it's not what you use but how you use it

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