



Thought Sparkers

To what degree has my laptop become an extension of my brain, and by result, of my actions? To what degree have we as people and as a culture become dependent on the great inter-network, in our daily lives? I suspect that the extent is somewhere between substantial and indispensable — closer to indispensable. Yet we continue to base our investments in classroom technologies on the evidence that it helps students learn curriculum that, in most cases, is older than the Internet.

<http://davidwarlick.com/2cents/2006/05/29/memorial-day-and-net-learning/>

The key skill of a leader is to get your people to follow you to a place they would not go by themselves. Where is that 'place?' By and large, that place is located in the future. Finding that place and leading your team to it is the leader's most responsibility. Now, here's the dilemma. If you are unsure of what is ahead, if you are afraid ... you will lead slowly. And that can put you at a ... disadvantage.

<http://www.strategicexploration.com/i-wheel/scouting.htm>

We desperately need... we may not survive without... a generation of young people who are imaginative, inventive, fearless learners, and compassionate leaders. Yet, what can we say, as educators, about the students we are producing. We can prove that they can read, do basic math on paper, and they are able to sit for hours filling in bubble sheets.

No generation in history has ever been so thoroughly prepared for the industrial age. How have we allowed ourselves to be led by such a miserable lack of imagination?

<http://davidwarlick.com/2cents/2006/02/16/happy-birthday-jude/>

My son sits in his bedroom with a TV, VCR, DVD player, video game systems, a small video camera, a digital camera, a computer, and a Video iPod. Each product was initially designed to perform a specific task, allowing us to be entertained or to record images and sound. My son, however, spends his time mixing them together, drawing audio and video from his video games and from movies, and mixing them together with video and still images that he makes of himself and his friends to produce a different and entertaining new information product. Information, to him, is never finished. It's just a raw material with

which he can make something new. It is important, I believe, that we look at curriculum the same way, that it is a raw material, something that we can mix in different ways, and produce learning experiences that help our students to teach themselves.

I think it may also be interesting and valuable to treat our students and ourselves the same way. That rather than graduating finished students, who are ready for the world, that we produce people who are raw material, capable of not only adapting to a rapidly changing world, but also able to continue to learn, unlearn, and relearn, so that they can shape that world into something that is better.

<http://davidwarlick.com/2cents/2006/03/07/finished-products-are-no-more/>



It's fun for these kids, no doubt, who are connected and self-motivated and have the equipment. They're learning, and they don't even know it. They're writing, producing, organizing, planning, editing, listening, dreaming, presenting and more. It's good stuff.

But I wonder how much further down the road they'll be able to run than the kids who aren't getting the chance to create and connect their own content either because they can't afford it or their schools can't see it. When I think about this, I see amazing potential. But I also see a lot of kids getting left further and further behind. For too many, learning is still pre-packaged, and it will remain so for quite some time unless some major changes occur. The same holds true for educators who are unwilling to imagine what could be, much like the Oscar voters who couldn't bring themselves to see Brokeback Mountain because of the "unsettling" content (at least for them.)

I agree with George.

As educators, we are not grasping (or prepared for) the depth of the change that is occurring under our feet. If it's happened (breaking apart the center) in every other industry - movies, music, software, business - what makes us think that our educational structures are immune? And what does it mean to us? What should we be doing now to prepare our institutions? Ourselves? Our learners?

We should all be thinking about that.

<http://www.weblogg-ed.com/2006/03/07#a4796>

I believe that it is essential, for our future, that we begin imagine, assemble, and articulate a new vision for the 21st century classroom — tell a compelling new story. However, Monday, in Texas, an educator suggested something to me that, quite frankly, sent chills down my back.

Our children and teachers are suffering under the constraints of policies, structures, budgets, curriculum, and methods that spring out of the stories of our classroom days 10, 20, 40 years ago — and those who vote on local, state, and national education issues, do so from those perspectives. But if we take the story forward, say 10 and 20 more years, when the people voting are the youngsters in our classrooms today, classrooms that seemed too artificial, teachers who were not educated in contemporary tools, curriculum that seemed irrelevant, and learning methods that were deadly boring.

What are they going to be willing to vote for, when it comes to the schooling of their children?

What stories are they going to tell?

What do you think?

<http://davidwarlick.com/2cents/2005/12/14/the-next-story/>

MySpace now has 72 million users¹. That is larger than the populations of 213 countries². Perhaps we could deal with the social online networks thing if we thought of it for what it is — MyNation. This is their digital nation. They are citizens, and they've never been taught digital civics.

<http://davidwarlick.com/2cents/2006/06/15/myspace-%e2%80%a2-mynation/>

Let's have a little competition at school and get ready for the future. I will use a laptop and you will use paper and pencil. Are you ready...?

- I can provide up-to-date information to my students - you have a textbook that is 5 years old.
- I can find and change all my instructional materials, worksheets, study guides, tests, every year - you better hope the master is good enough for one more photocopy.
- I will model 21st century skills - technology, information-problem solving and life-long learning - you will lecture about them.
- I will provide my visual learners an accessible means of grasping concepts through multimedia resources - you can use simpler words..
- I give my students a world-wide audience for their creative work – you will share your students' work with the class.
- I will give my students access to study materials and resources for my class 24/7 - you hope they remember to bring home the textbook.
- I will communicate with my students and parents electronically - you can hope to catch them after class or at home in the evenings.
- I will give parents real-time access to how their children are performing in my class - you send our report cards and have two parent-teacher conferences a year.
- I will use the information gathered from computer enabled value-added testing to know exactly what my individual students' strengths and weakness are - you will use whole group instruction.
- I will communicate with educational leaders and experts using email – you will try to remember the advice of the instructor in your college methods class from 1980.
- I will honor the variety of reading abilities of my students by providing materials on a topic at a variety of reading levels - you will use the basal reader.
- I will collaborate with my peers from around the world – you will stay behind your classroom door.
- I will allow my students to take their learning as far as they want – you must keep everyone at the same place at the same time.
- The cost of a laptop per year? - \$250
 - The cost of teacher training? – Expensive, but no more so than other staff development activities
 - The cost of effective schools? - Priceless

<http://doug-johnson.squarespace.com/blue-skunk-blog/2006/1/19/i-will-as-a-teacher.html>

Our problem is that we now live in a society that demands **full literacy**. The model of literacy that has driven schooling for the last many decades does a pretty good job of teaching sufficient numbers of students to consume content (read) and perform mathematical operations on a limited quantity of numbers (arithmetic). We were taught some writing, but the emphasis was on reading and math (NCLB).

Being able to function, contribute, and prosper in this new information environment — more conversation than library — requires full literacy, the ability to interact within that information environment in a way that adds value. It means expanding our notions of literacy beyond reading the text on the paper in front of you. It means being able to expose truth within the information that surrounds you. Students must learn to:

- Find information appropriate to their needs
- Decode the information regardless of its format or medium
- Evaluate the information in order to determine its value
- Organize valuable information into personal digital libraries

Full literacy goes way beyond being able to perform mathematical operations with a dozen numbers on a piece of paper. It means being able to employ information that can come as thousands of numbers,

regardless of what they look like. They may be numbers. They may also be the bits and bytes of text, images, sound, animation, or video. We must know how to process all of this information to add value.

Communication is key to accomplishing almost any goal today, and communication goes way beyond being able to write a coherent paragraph. If students can not express ideas compellingly with text, images, sound, animation, video, and any remixed combination of these, then that student is not literate.

Finally, full literacy happens only when information participants work within an ethical context that recognizes and puts into practice that it is we who must protect the information; its reliability, its ownership, and the infrastructure that it rides on.

We live in a time of rapid change, where we are faced with new questions, new problems, and new goals. We need the Wikipedia and this conversational web because the solutions to new situations do not necessarily come from credentialled authorities who owe their position to what they were taught ten years ago. New answers will come from something that somebody said yesterday, from her living room, on another continent. New answers and new solutions will come less from what we've been taught. Instead, they'll come from our experiences, and our ability to reflect on those experiences, mix and remix them into something valuable, and contribute our conclusions and insights to our global neighbors.

<http://davidwarlick.com/2cents/2006/01/02/first-new-year-blog-in-defense-of-wikipedia/>

In a time of rapid change, the measure of success depends more on how adaptive and inventive the learner is — their ability to turn instability into opportunity. In this world, summative testing makes no sense. **I continue to maintain that when we can not clearly predict our children's future, it becomes much less important what they are learning, and much more important how they are learning it, and what they are doing with it.**

Gulin said that the practices of innovative teachers are considered, "...untried and untrue because they don't connect with the traditional environment of school." I think that the real story is that our schools are not connecting to (relevant to) their own goals, preparing children for their future.

He goes on to say that change may not happen from within our schools, but as a result of the demands of society. I agree with this, and this idea may be helpful in responding to Darren Kuropatwa's apparent struggle with what I mean by "telling the new story". Actually, he seems to understand quite well what I mean. It's the demands of that society and our children's future that needs to be made into a story, and then told in compelling ways back to the community (and to communities of teachers). It requires that we observe, speculate, converse, and construct a compelling story that clearly defines what children need to be learning, and how they need to be learning it, and in what kinds of classrooms (or not) it should be happening in. That story has to connect to a market-place, to deeply held values, and it needs to be something that we can point to and say, "Isn't that the kind of education your children deserve?"

<http://davidwarlick.com/2cents/2006/03/19/reactions-to-podcast-40-redefining-telling-the-new-story/>



As part of a demonstration of podcasting, I recorded the teachers' answers to this challenge: *Imagine walking into your classroom in 2015 and describe what you see that wasn't there in 2006.*

Some of the resulting blog comments and independent blog reviews of the podcast surprised me. Several educators, whom I respect greatly, felt that many of the ideas expressed in the clips, and especially in my own vision, were too much to expect in the next decade — that funding, staff development, school structure, political will, and a number of other constraints will prevent us from making much change at all. At present, these educators have every right to expect little. After all, how much have classroom computers, Internet in every room, amazing instructional software, and other advancements really changed what teachers and students do in their classrooms?

I think, however, that the pessimism that all of us feel with regard to retooling our classrooms comes from asking the wrong question. Should we be asking...

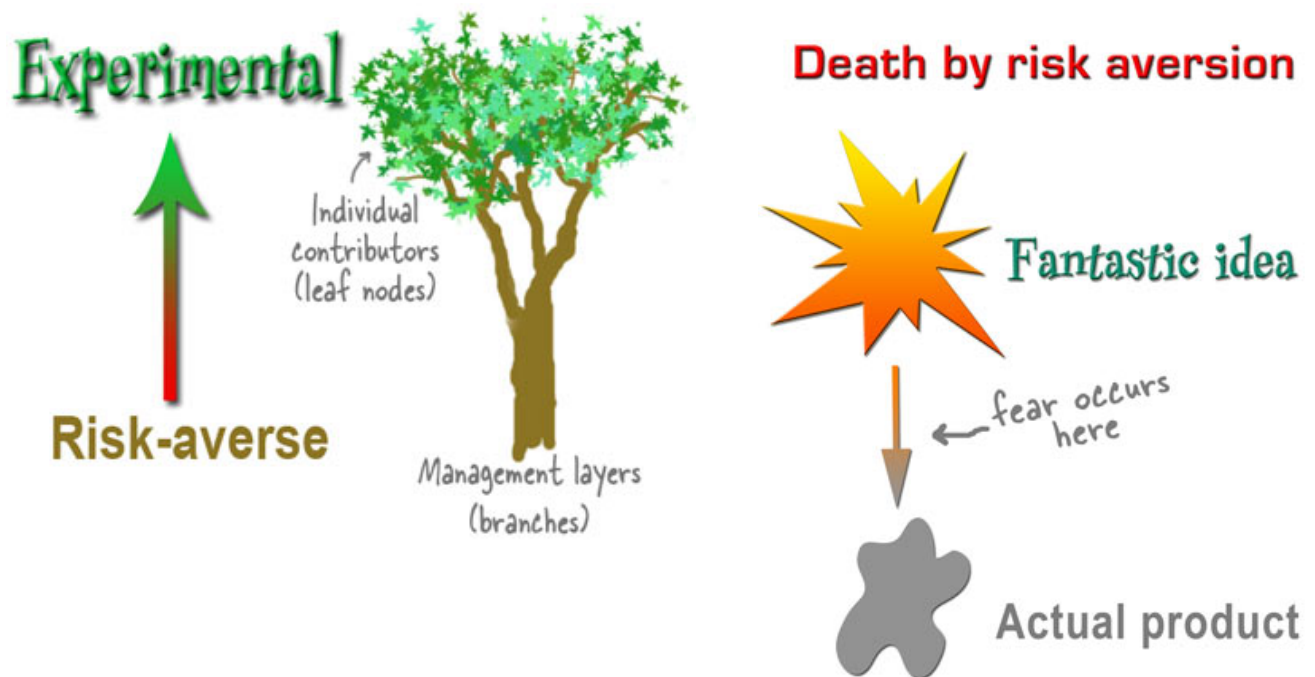
What should we reasonably expect our education system to achieve in the next ten years?

or should we ask...

What should today's children reasonably expect from our education system over the next ten years?

I think that our children have every reason to expect a lot more.

<http://davidwarlick.com/2cents/2006/01/11/asking-the-right-questions/>



On the plane out to San Diego I got the chance to watch Sir Ken Robinson's great presentation at the TED conference (Technology Entertainment and Design). It's a pretty powerful call to "radically rethink our view on intelligence" and "rethink the fundamental principles on which we are educating our children" to move toward a much more nurturing educational environment for the arts and for creativity. The money quote is

Creativity, now, is as important in education as literacy, and we should treat it with the same status.

Why? Because, as he points out, the kids who start school today will be retiring in the year 2065, and yet we know as little about what the world will look like then as we do five years from now. We can give them all the content we want, but in this age, it won't make much difference if we don't teach them how to learn first. And they do that not by spitting back at us what they "know." They do it by being creative, by trying and failing, by succeeding and reflecting. It echoes Daniel Pink's book all over.

George Siemens points to an interesting read in a similar vein in "How Failure Breeds Success" and says "learning is not a process of performance, it is a process of becoming." And if we are lifelong learners, we are always becoming.

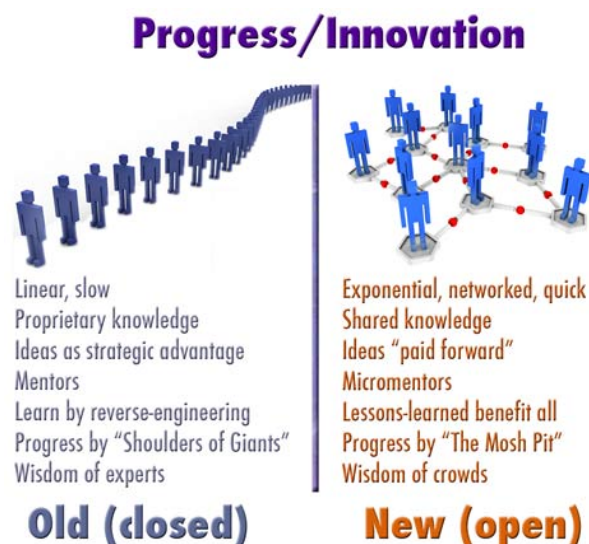
A couple of more notches in the school is irrelevant belt.

<http://weblogg-ed.com/2006/learning-to-learn-2/>

Our kids are connected. Technology is part of their lives. But let's try to picture this in a different way. As you are, by now, accustomed to my saying, "It's not technology, it's information". These gadgets are their links to information. They talk, text message, and google with their mobile phones, IM on their laptops, access the world wide web, Net-based video games like Halo, MMORPG (did I get that right?) games like EverQuest and Second Life. These gadgets represent intellectual appendages to our children. They are the hands and feet that carry children to new experiences, and cutting these links is like cutting an appendage — and **that makes no constructive sense to these children and their world view.**

Yet we try to cut it off.

<http://davidwarlick.com/2cents/2005/08/24/our-schools-are-leaking/>



We ourselves have to do these types of activities no matter what happens to us, in spite of the consequences. What I think we're really getting at isn't that the tools are so powerful, but that we're dis-empowered as educators, and that those Web 2.0 tools (blogs,wikis) allow us to get that power back. But, it's a different kind of "power" than what we've been accustomed to as educators, but, I hope, not as educational technologists. This quote from Quinn really hits home, especially with the implications of what we must do:

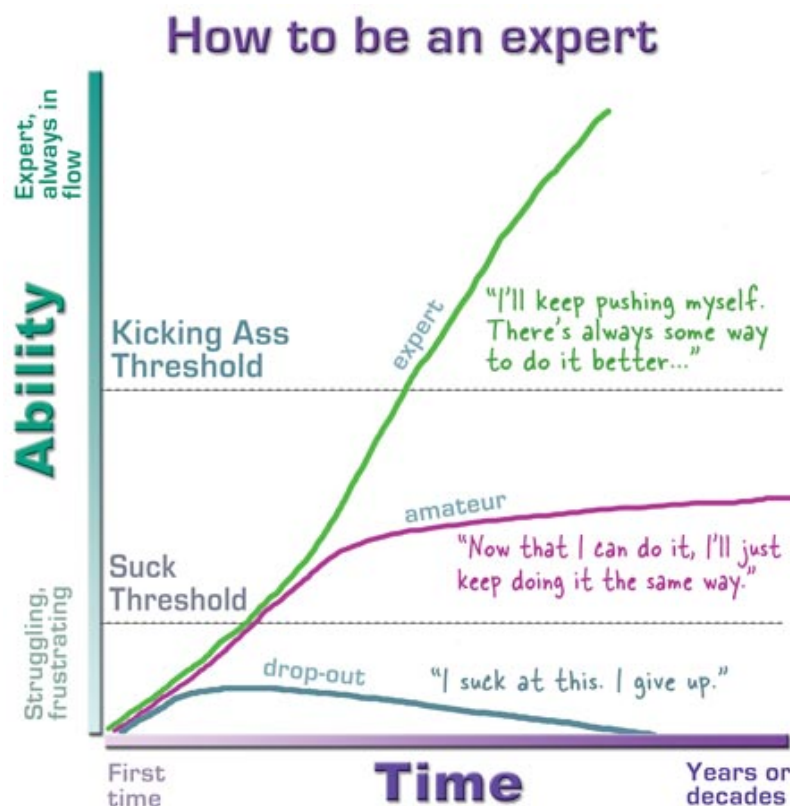
To observe transformational capability, we cannot observe normal people doing normal things. We must observe people who are living by principle. To develop transformational capability, we cannot be normal people doing normal things. We must stand outside the norm. To do that we need to go inside ourselves and ask who we are, what we stand for, and what impact we really want to have. There we find the capacity not only to withstand the pressures of the external system, but also actually to transform the external system. **Source:** Quinn in Changing the World, Page 19

http://www.edsupport.cc/mguhlin/blog/archives/2006/05/entry_1539.htm

How can we stay on the cutting edge without too much bleeding? - David Warlick

How should districts balance security, community/moral/standards, social networking, and emerging, disruptive technologies? - David Warlick

What will happen when information flows over the geographic obstacles and cultural barriers that have divided human beings into thousands of isolated groups for most of our history as a species? - Bruce E. Wexler



I was taking some time to think about educators who feel they are falling behind the kids in terms of what it means to be literate. Some are proposing that what we need to do is incrementally, but intensively, increase our skills until we, at some point in the future, are "caught back up" with where the kids are. The problem being of course that the literacy skills, and learning tools that kids are using these days are moving targets. As we edge up in our understanding of what they are doing, and what the possibilities are, the kids have left us behind again as they head off in another direction.

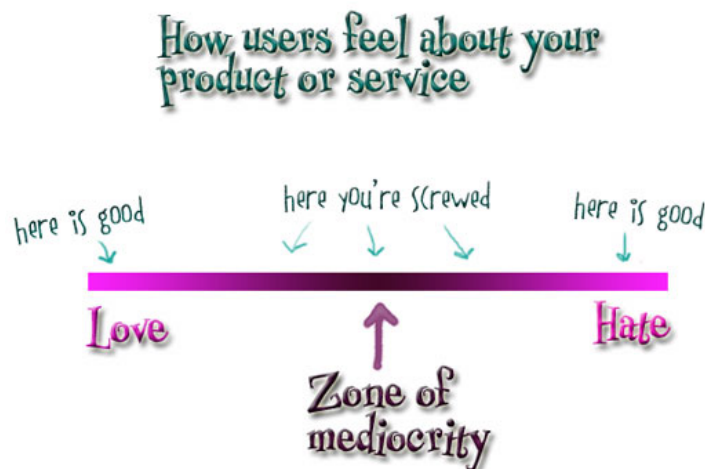


The definition of insanity is doing the same thing over and over again and expecting a different result each time. This, in some ways, seems to be where we are. We are starting see an ever - expanding gap between "school" literacies and literacies that kids "do" on their own. I come back again to the idea of underground digital apprenticeships. While we teach whatever we teach at school, the kids go home and learn the skills they need to survive and prosper in an inter - connected global economy.

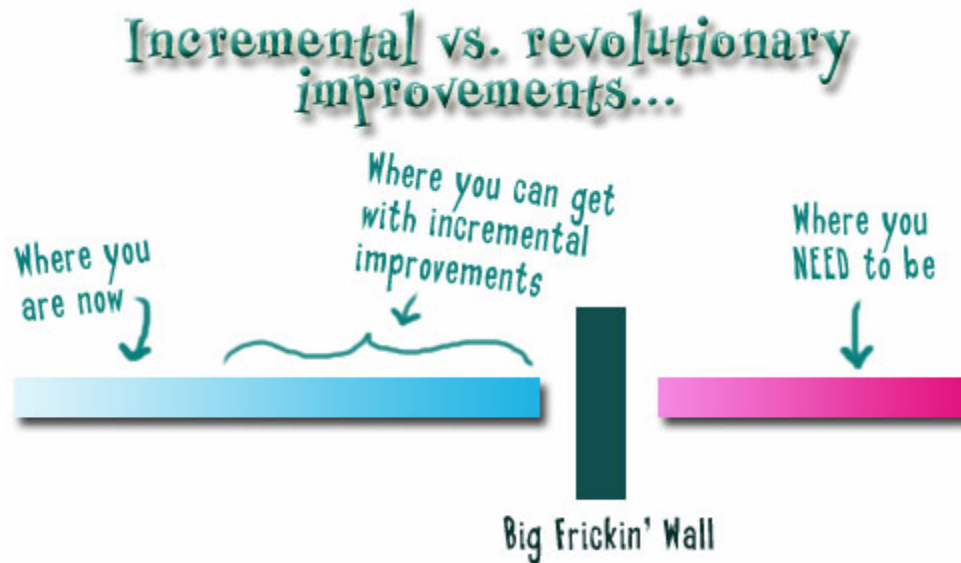
Hence the need to leap - frog. Economists talk about leap - frogging when they look at nations in Africa and Asia that are making quick economic progress in communications, in connecting their people. While in North America and Europe, nations worked through a slow historical progression of sending telegrams, constructing a system of land - based telephone lines, and then moving into a cell - phone based system, developing nations are leaving the previous technologies behind and moving straight to cell - based systems allowing them to catch up quickly, connecting people across their nations. Now that MIT has brought out its \$100 laptop, these nations will be on the same "playing field" as our kids very soon.

We need to develop this same idea in education. We need to leave behind ideas of incrementally increasing our understanding, and incrementally changing our teaching methods, slowly bringing people up to speed. This idea worked fine when ideas of literacy and education were not rapidly changing; but they are. We need to be able to leap - frog in our understandings, in our methods, and in our tools, allowing us to move to where the kids are. If we do not become leaders to our students, we will be followers, seen as irrelevant, and left to cry in our books while the kids are off setting the agenda.

http://remoteaccess.typepad.com/remote_access/2005/11/educational_lea.html



No one jumps a 20 foot chasm in two 10 foot jumps. – Miguel Guhlin



Most interesting to me is the question of the effectiveness of incrementalist approaches to change (as a comment notes: no one jumps a 20 foot gap with two 10-foot jumps). Clarence feels an urgency for change and has called for a leap-frog approach in attempting to catch up with students' practices in new literacies.

Almost two years ago I presented to the Instructional Technology Specialists program group on this topic. My presentation was called "Incrementalism, Evolution, and Revolution." My basic premise was that a) the academic world is incrementalist by nature and that this has worked (such as it has) because the underlying structures and assumptions for and by educators have remained the same and, b) things are no longer the same— technology and students (and the connections that tie them together in the form of social software and networks) are changing at rates never seen before. I even trotted out the parable of the frog in the beaker and the blind men describing the elephant.

The difference— I maintained then and continue now— is that this is not an attempt at change by well-meaning teachers but a revolution that is happening outside of our control, in our student population and there will be a tipping point in this process when the academy finds itself wholly inadequate and unsuitable to those they presume to serve... and no time to patch their outmoded mechanisms. I imagine the same shrill rage that will come when global-warming naysayers are finally forced to face the facts; it's a sad satisfaction... too little, too late.

There's an important matter of scale to be considered: one teacher's incremental approach may be another's revolutionary change. The same commentator who talked about being unable to bridge a 20 foot chasm in two jumps spoke shingly of changing one classroom at a time. Is even that too little? Is there hope of anything else?

<http://www.chrislott.org/2006/06/20/dead-teachers-and-tipping-points/>

All pictures are from <http://headrush.typepad.com> unless otherwise noted.

It seems to me that in order to shape the application of new technologies, we need a mold to shape it around, and that mold needs to be new as well. One of our problems has been that we have tried to shape the technology around out-dated notions of what schooling is about, rather than reshaping our notions to reflect new world conditions.

So here is my basic list. Here's what has changed, what is different.

1. The Information is different

- It's Networked — Information is increasingly coming to us through networks, initially radio and TV, but today it comes to us over the Internet from nearly anywhere, from nearly anyone, and for nearly any reason
- It's Digital — Information is now made of ones and zeros, and as a result, information can be reshaped in a wide variety of ways, using increasingly ubiquitous tools. We are starting to think of information as a raw material, not merely as a product to be consumed.
- It's Overwhelming — Information is increasingly increasing. This is important because the messages that we wish to deliver to help us accomplish our goals, must compete for attention among all the other messages out there.
- It Doesn't Need a Container — information is shaped differently. It can not be contained nor controlled in the traditional sense. We must depend less on central gatekeepers to assure the information and more on our own skills and highly developed sense of ethics when accessing, using, and producing information.

Each of these aspects of information leads to a dramatic expansion of what it means to be literate, the new BASICS of school curriculum.

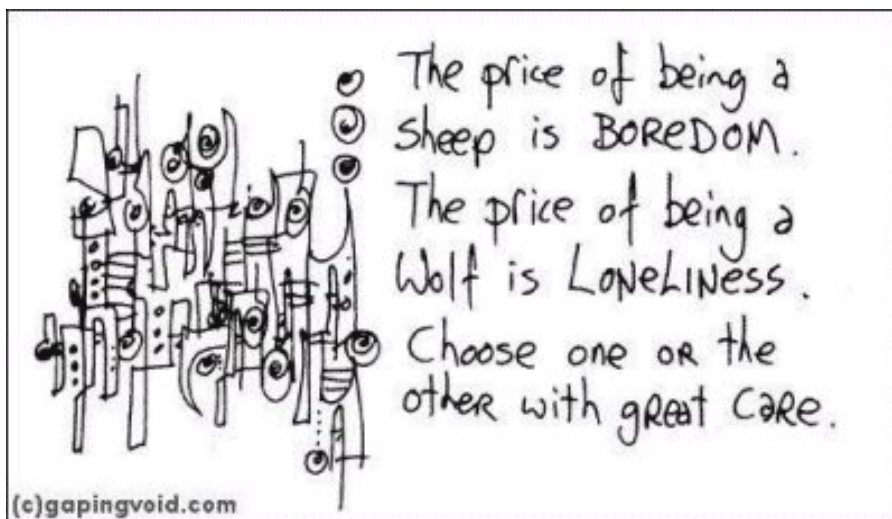
2. Content is Different — The answers to today's questions will not be their answers tomorrow. Science, health, culture, politics, economics, and even history are all changing. In a rapidly changing world, it becomes much less valuable to be able to memorize the answer, and much more valuable to be able to find and even invent the answers.
3. Our Tools are Changing — Technology is changing at dizzying rates, which is part of the reason for the preceding elements of change, but also a good reason why we should be focused on the information and not the technology. We can't keep up with making the technology the curriculum. All we can do is prepare our students to teach themselves. It's the only way to keep up.

<http://davidwarlick.com/2cents/2005/12/16/so-whats-different-some-answers/>

User Experience



Cool Features



Conversations continue about schools that block access to the blogosphere. I ran across an interesting comment last night, in my end of the day aggregator scan. It was in a blog post by Wesley Fryer (Censored for Relevance - April 11, 2006), that he said, "Are we living in the United States here, or totalitarian China?"

There are distinct differences between censorship in China and censorship in the U.S. In China, it is the government that is in a position of power, whereas, in the U.S. it is individuals and the mobs that they form that owns the power. But Fryer's statement, I believe, is still a fair association. In both cases, censorship happens from the government's fear of the people. China fears access to information that empowers people to challenge their authority. In the U.S. we fear challenge to the government's ethicacy.

But the pivot point is not politics. It's in the desperate belief that we can contain the information. It's in our gatekeeper insistence that the information we do not want our children to have can be put on the highest shelves, hidden in the back of a closet, hidden within a brown paper wrapper, or rejected by editors and librarians,

The awful shame of it is that we have, as a result, convinced our children that their information is safe inside of their containers. Find your child's MySpace writings and then question them. They will say, "That wasn't for you." "What are you doing in my space?" "How did you find that?" "How did you get there?" "I thought I was protected." "I thought my information was containered for me and my friends."

Because we still treat information as something that we can hide behind a wall, and we continue to teach that way to our children, they do not realize the dangers that their information represents to their personal safety and future well being.

Perhaps, we should stop thinking about the problem as something that we can cut off, like amputating a gangrenous arm. Instead, why not think of it as something that is integral to our culture — and treat it.

<http://davidwarlick.com/2cents/2006/05/11/you-may-not-get-to-read-this-blog/>

I'm getting tired of hearing people continue to ask for the evidence that technology helps students learn. It doesn't matter. We know — that good teachers help students learn. We need technology in every classroom and in every student and teacher's hand, because it is the pen and paper of our time, and it is the lens through which we experience much of our world.

<http://davidwarlick.com/2cents/2006/05/22/curriculum-is-dead/>

Managing Complex Change



Adapted from Knoster, T. (1991) Presentation at TASH Conference, Washington, D.C.
(Adapted By Knoster from Enterprise Group, Ltd.)