

Our Students • Our Worlds

Draft

By David Warlick

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Our Students • Our Worlds

A Post Presentation Narrative

By David Warlick

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Introduction

Leadership

Dr. Jennifer James, a cultural anthropologist in Seattle, Washington writes and speaks about leadership. Specifically, she itemizes three kinds of leaders.

1. The Master Leader – This is the leader who is so good at a thing, that people can't help but follow the lead. Dr. James mentions Michael Jordan as an example of a leader who earned his following by being the best in a field.
2. The Creative Leader – This person devises and models such interesting new ways to work within a realm, that people will to follow in kind. Albert Einstein and Steven Spielberg are examples of creative leaders.
3. The third type of leader is the one that James describes for education, the leader who can tell a compelling new story. Here, she uses Albert Einstein and Steven Spielberg. She also talks about Nelson Mandela and *Slobodan Milosevic*, national leaders who moved their countries into dramatically new directions. Mandela told a story about reconciliation, while Milosevic used a story of hatred and revenge.



Illustration 1:

Jennifer James continues to describe three components that must be a part of that compelling new story. She says that the story much:

1. **Fit the market place**

The story must connect with how people make their living, how the accomplish their goals, and how they earn and obtain their wants and needs. The story must address what we know about the local and global market place and how the related – or what we do not know about the future market place.



Illustration 2:

2. **Resonate with deeply held values**

Stories that influence are stories that connect with us on an emotional level. The story must be real, logical, and relevant. But we are influenced by what we care about.



Illustration 3:

3. **Be something that we can point to, something that we can model.**

The story that evokes a need for change must point to that need for change, and if possible, it must point in the direction of what that change looks like. That image for modeling change should be something that is tangible, logical, and universally identifiable.

This presentation is structured around these three components. It was not a original inter when the presentation was originally developed, but the connections are obvious.

A Compelling New Story
Leader



Illustration 4:

Resources

This document is a relatively static production, designed for downloading and reading digitally on your laptop or mobile phone, to be downloaded and printed, or ordered as a published booklet.

Digital and networked resources are also available, which are updated and grown with the subtle and less subtle changes in the conditions that we teach under.

All handouts for David Warlick's presentations and workshops are available through the CoLearners blog:

<http://davidwarlick.com/colearners>

A blog entry is added with each event that David works. So, to see information about the most recent venues and topics, go here. Evolving content related to specific topics or presentations, is available at the CoLearners wiki:

<http://wiki.davidwarlick.com/>

Here, you will find wiki pages that are maintained by Warlick for each of the topics. Also available are bibliographies on the topics, which are also regularly updated. The wiki site also stories content generated through session back channels. These are online conversations engaged in by participants, usually during the presentation. Some conversations flow through Twitter (<http://twitter.com>), a microblogging tool. More frequently, the conversation are facilitated by Knitter (<http://davidwarlick.com/knitter/>), a closed Twitter-style tool that is the result of recoding an open source chat program called Ajax Chat.

The transcripts of these back channel conversations as moved to a wiki page, linked from Colearners Wiki, where participants and the presenter can read, reflect, and then insert comments into the conversation, as the document is a wiki. The direct wiki link for Our Students Our Worlds is:



<http://davidwarlick.com/handouts/>
<http://davidwarlick.com/sl/>

Illustration 5:

<http://davidwarlick.com/wiki/pmwiki.php/Main/OurStudentsOurWorlds>

Sorry for the length of this URL.

Converging Condition 1

Preparing Students for an Unpredictable Future

I attended school during the 1950s and '60s. It was in a small mill town in the western part of North Carolina, where a significant number of students I attended class with, entered the mills or factories in Gastonia and Charlotte, upon leaving school – with or without a diploma. The mills and factories needed workers who could,

- Work in straight rows
- Performing repetitive tasks
- under close supervision

It is no accident that the classrooms that I attended were structured around a manufacturing model that was authority-based, with a rigorous quality control element designed in.

Much has been written about dramatic changes in the workplace, sparked by advances in technology and an increasingly global market place. While there is less need for people to work in manufacturing, there is increasing need for people who can work in new realms. Thomas Friedman says that the people who will prosper in a flat world, will be people who are

- Special
- Specialized
- Highly adaptable
- Anchored

I do not know anyone who is that special. Anchored workers are those who can make a living by touch you or something you own (barber, chief, gardeners, etc.) People who are specialized are those who are able to make themselves an expert in some field of importance, and people who are highly adaptable are those who can,

- learn,
- unlearn, and
- relearn

very easily.

However, there is another aspect of this time of rapid change that impacts on education and what it means to be educated today. In the presentation, I projected a photograph of a typical information age workplace, a home office for a consultant who makes a living by providing information services to his or her clients. In my neighborhood, in Mid-town Raleigh, North Carolina, a number of us make our livings out of our own homes – cottage industry-style. We are authors, environmental consultants, event coordinators, script writers, programmers, and education consultants.

In the activity, we examined some of the information tools that seem typically necessary in this work environment. For instance, there was a telephone. However, when I recently asked a group of 600 first year teachers in Phoenix, Arizona if they owned a traditional, plug in the wall, telephone. Only six hands were raised. They all had mobile phones. The fact is that very few of those teachers will ever own a traditional telephone.

A recent study, reported in The Office Google Blog, stated,

There are currently about 3.2 billion mobile subscribers in the world, and that number is expected to grow by at least a billion in the next few years. Today, mobile phones are more prevalent than cars (about 800 million



Illustration 6

registered vehicles in the world) and credit cards (only 1.4 billion of those). While it took 100 years for landline phones to spread to more than 80% of the countries in the world, their wireless descendants did it in 16.¹

We removed the telephone from the picture of the information-age workplace.

I may have told the story about the conference I attended in South Dakota, where attendees received the conference program upon registering. The program was a flash drive, which contained the program, speaker bios, and other resources. It was assumed that all attendees would have a laptop or tablet PC, so that they could access and interact with the program conveniently.

I may also have mentioned that the Christian Science Monitor will end the print version of its highly regarded newspaper in April, switching to online-only. They simply could not afford to continue printing, and keeping their global reporting bureaus. PC magazine prints its last paper issue this month (January 2009).

The School of Information Manage & Systems of the University of California Berkeley researched, over a number of years, how people were using information, and how much information we are generating. Their findings for 2002 were that we generated 5 exabytes of new information. That much information would fill 37,000 Libraries of Congress. Yet, that same year, on .01% (that's one one-hundredths of a percent) of that information was ever printed.

As we remove paper from the workplace of the future, we must reflect on how much precious time we continue to spend teaching our students how to use paper – and how much time we spend teaching them how to use digital content.

An image then appeared of a webcam, a special camera that can be installed on a personal computer, and that is increasingly pre-installed on laptops, including the \$350 Netbook computer I am typing this on. We are increasingly using products like iChat on the Mac and Skype across all three platforms (MacOS, Windows, & Linux). We are starting to hold meetings and even attend professional development in virtual worlds, such as Second Life. Last night, I

delivered a presentation in Second Life for virtual teachers who work for the North Carolina Virtual Public Schools, using an interactive 3D concept map. If we will be handling more and more of our professional communications virtually, then we can remove the extra chairs in our work place of the future. (*Tongue in cheek here*).

Finally, as we see the computers and peripherals in the room, we have to consider what futurists have been saying about our technology, that it will be something that we carry in our pockets or literally wear. I can't help but think about the iPhone in my pocket, a thousand times more powerful than the PCs I filled my desk ten years ago, and the ear appliance that I might use to conduct my calls – if I was comfortable wearing those things. We are starting to carry our technology with us, and we will come to the same conclusions that we've already made about our communication technologies, that we will want them to be something that we can carry with us, not something that we have to leave behind.

As the computers and peripherals disappear, there seems no reason for the desk, for the desk chair, for most of the remaining things in the office – and what we have left is almost nothing.

And this is exactly what we know about the future we are preparing our children for.
Almost nothing.

For the first time in history, we know that we are preparing our children for a future we can not clearly describe.

And one of the core questions we need to be asking our selves is..

What do children need to be learning today, to be ready for an unpredictable future?



Illustration 7

What we do know about the Future

The world is flat. This is message delivered by Thomas Friedman's paramount book, The World is Flat. The bottom line of this book is massive globalization, an emerging world market where, as the U.S. has been slowed its advances technologically and economically because of the Dot Com Bust, 9-11, and what Friedman refers to as a characteristic sense of entitlement, much of the rest of the world has continued to grow in economic prominence, most notably China and India.

In a more recent book, The Post-American World, Fareed Zakaria paints a picture of a world where of the 25 most likely next great multinational corporations,

- Brazil, Mexico, South Korea, and Taiwan will each host four;
- India will have three;
- China will have two; and
- Argentina, Chile, Malaysia, and South Africa will each host one. ²

There are lots of short little stories that tell about the globalization that is taking place. Read both of these books to arm yourselves for your storytelling. But one that resonates especially strongly with me is how UPS is currently shipping almost 16 million packages a day, around the world. At any moment, 2% of the worlds gross domestic product (GDP) is in the back of a UPS truck.

This is a measure of how global the world has become.

It is a measure of how cooperative the world has become.

We get a lot of distance in education by talking about the need for a competitive workforce – and there is value and truth to this statement. But what is really emerging is a world that is

more cooperative, where nations are finding specific niches of server. This is the kind of school graduates that we need, people who can resourcefully and inventively find or create ways for being of unique value to a local and global market place.

The Myth about Stem

Over the past years, there has been a renewed interest in the teaching of science, technology, engineering, and math – the STEM subjects. The push for applied sciences has probably not been this great since Sputnik. And it is true that the United States has declined in its contributions to these fields of study. One statistic shared during the presentation was that

Of the 18,000 employees of NASA, more than half of them are older than 50, and the number of NASA employees older than 60 is greater than those younger than 30 – by a margin of 3 to 1.

Yet, I am also paying attention the two others thinkers and writing, Daniel Pink and Richard Florida. Daniel Pink, a trained lawyer and former speech writer for Al Gore (as vice president), has written a book called A Whole New Mind, a piece that has resonated deeply with the education community. In this book, Pink makes a case for right-brained people, who exhibit greater functions of processing visual and musical stimuli, spatial manipulation, facial perception, and artistic ability. He makes the point in the book and in his talks, that Left-brained functions are as important today as ever before. But Right brain is more important.

Richard Florida, an urban studies academic at the University of Toronto, makes a case for the idea that we are moving from an industrial age, where wealth is generated through muscle power (people operating machines), to a creative age, where wealth is generated by people comes up with more effective, more efficient, and more interesting ways of doing things.

In a talk that I saw Florida give in Raleigh, a couple of years ago, he took data from the U.S. Bureau of Labor Statistics and projected that as the U.S. Continues to lose 500,000 manufacturing jobs, we will gain 200,000 science and engineering jobs. This is good until the math reveals that someone is getting left out. He also makes a case for the projection that 400,000 new jobs will arise in the creative arts fields, and he is galking about visual arts, music, drama, entertainment.



Illustration 8: Daniel Pink, *A Whole New Mind*; and Richard Florida, *The Rise of the Creative Class*, and *The Flight of the Creative Class*

This rings true when we consider that people continue to shop for their technology – computers, video games, game systems, LCD TVs, etc. -- it isn't the technology that we are looking at. We are not looking at the schematics. What we are shopping for is a better story, a better visual experience, a better auditory experience. What we are shopping for is a better experience with what the creative arts people have contributed to the product.

This is why, as we continue to put more emphasis and funding in the STEM subjects, it is just as critical that we put just as much emphasis and funding into art, music, and drama, and for exactly the same reasons.



Illustration 9:

Converging Condition 2

A New Generation of Learner

We have to remind ourselves that today's students are a different generation of learner. They come from a different time. They have a different frame of reference. They are experiencing a different culture, one based on networks and information.

For the past 11 years, Beloit College in Wisconsin has compiled a list of statements that,

...look at the cultural touchstones that shape the lives of students entering college. It is the creation of Beloit's Keefer Professor of the Humanities Tom McBride and Public Affairs Director Ron Nief. The List is shared with faculty and with thousands who request it each year as the school year begins, as a reminder of the rapidly changing frame of reference for this new generation.

Here are just a few statements about the people who just graduated from your high schools:

- Since they were in diapers, karaoke machines have been annoying people at parties.
- GPS satellite navigation systems have always been available.
- Gas stations have never fixed flats, but most serve cappuccino.
- Girls in head scarves have always been part of the school fashion scene.
- WWW has never stood for World Wide Wrestling.



- Clarence Thomas has always sat on the Supreme Court.
- IBM has never made typewriters.
- The Hubble Space Telescope has always been eavesdropping on the heavens. ³

Our students' native information experiences makes them very alien to us. It is like they have invisible testicles that allow them to reach out, through walls, across distances, to connect to the people and information that helps them accomplish their goals. They have Google in their pockets, collaborate in guilds in their video games, invest enormous amounts of time in populating their social network profiles, and literally carry their friends and conversations around with them through text-message.

Yet, when they enter most classrooms across the U.S. We work to cut those tentacles off --

Because we want our children to be the students we want to teach,
rather than teaching the learners that they are.

Is this not an insult to our children?

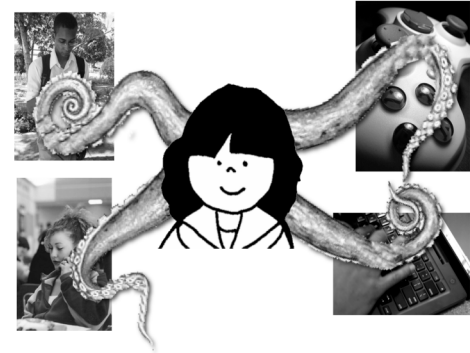


Illustration 10:

They are Self Learners

I probably showed a video that my son, Martin, made when he was a junior in high school. In it he used some props, the audio from *The Music Man* DVD, and his video camera to produce a video that pantomimes the opening scene to the movie.

My purpose for showing the video was so I could say, "I didn't teach him how to make that kind of video. And I know that his teachers at his high school didn't teach him how to mix content like that to produce an interesting video."

Where did he learn to do this? He learned it, because he knows how to find people who can help him learn what he needs to know, to do what he wants to do – and in a time of rapid change, this is a skills he will carry with him the rest of his life.

The true vastness of the digital divide is not the difference between the technology haves and have-nots. It is just the difference between people who have access to digital content compared to those who do not. The real vastness of the digital divide is that children with access to the technology are part of a community, and they are learning what a community of people collaborating together can accomplish – and there is power in that community.

Children without access are alone – and there is no power there.

This is a huge problem – and it is a national problem!



Illustration 11:

Video Games

Video games are huge. They are a huge part of our students information experience – their culture. They are a huge part of our economy today. In 2002, the video game industry surpassed the motion picture industry in total revenue.

Until recently, video games were seen, by educators, as a distraction. They were something that the kids did when they went home. Recently, many universities have begun to conduct serious research into the video game experience, and they are learning that many video games

are literally learning engines. They are entirely about learn and they are entirely about assessment.

Chief among the places that are conducting this research are the University of Southern California, the University of Wisconsin, Madison, Harvard University and MIT. Each year, UW of Madison sponsors a conference called the Games Learning & Society conference. I have attended it twice, and strongly recommend this event to any educator who is interested in learning more about video games and learning.

Here is short list of books about the video games culture and education:

Got Game by John Beck & Mitchell Wade

The Kids are Alright: How the Gamer Generation is Changing the Workplace by John Beck & Mitchell Wade

What Video Games Have to Teach Us About Learning and Literacy by James Paul Gee

Don't Bother Me Mom -- I'm Learning! by Marc Prensky

How Computer Games Help Children Learn by David Williamson Shaffer

It isn't, however, the video game that I find so interesting. Instead it is the experience, the culture that arises from it, and the spin-off that have emerged. Machinima is one example of this.

Machinima is a practice or art form, where people take digital media and mix it with other media to make some new, valuable, or interesting. Mashups have actually been around for a while, mixing video with images and audio. Machinima literally takes the video game environment, and turns it into a movie set, where kids are making feature length movies or music videos.



Illustration 12:

Some of the most popular environments to use are Halo, World of Warcraft, The SIMS, and the MultiUser Virtual Environment (MUVE) Second Life.

What impresses me about Machinima is not the technology. It is not that difficult. I could do it. What impresses me is that it would never have occurred to me to do this, to take the video game experience and make something else out of it.

It indicates a major difference between how my generation thinks about information and how my children's generation uses it. For me and my generation, information is a **product** that you buy and consume. It is a book that I buy so I can read it. It's a CD I buy to listen to, or a DVD I buy so I can watch it. For my children's generation, information is a **raw material**. At least part of the value of the content is in what you can do with it, how you can change it, what other information you can mix it with, how you can make it better, more effective, more interesting.

There may be opportunities for us in leveraging this tendency that students have to re-mix content, to learn by building with information raw materials, information products that they can share in get credit for.



Illustration 13:

Their Native Information Experience

Several years ago, I worked with a group of teachers in Irvine, Texas, a suburb of Dallas. This school district had been using a 1:1 computer student ratio since 1997. These were teachers who were accustomed to their students work with and talking about a digital network information environment.

We worked through an online collaborative activity to identify some of the unique characteristics of our students outside-the-classroom information experiences. The following list is what we ended with.

Our students native information environment:

- Is responsive,
- It provokes communication,
- It values personal experience & identity,
- Is fueled by questions,
- Measures accomplishment,
- Demands personal investment,
- Runs on safely made mistakes, and
- Earns audience & attention.

If I were still teaching in the classroom, I would use this list as a checklist for all of my classroom activities and assignments. I would ask how the activity takes advantages of the above qualities of today's information landscape.

Converging Condition 3

A New & Dynamic Information Landscape

There is possibly no other endeavor that we engage in as a society that is as information intensive as education. We teach from textbook, pass out work sheets and handouts, write on the board, show videos and film strips (at least I used film strips), and in other ways teach from a library of content that has been published under predictable and reliable circumstances.

The information landscape has changed dramatically in the past 15 years, with the advent of the personal computer and the Internet. Information has become increasingly:

- Networked,
- Digital, and
- Abundant

Each of these qualities affects what it means to be literate today. More on that later.

In recent years, the information landscape has become much more

- Participatory,
- User controlled,
- Community-based, and
- Less reliant authority.



Illustration 14:

Comparing the New York Times web site with Digg is a perfect way to compare the two realms. The NYTimes (<http://nytimes.com>) as maintained by professional journalists whose responsibility it is to assure that the information they publish is accurate, relevant, and without bias. Some news agencies have a better reputation than others for sharing information that is accurate and without bias.

Digg (<http://digg.com/>) is also a news site, but it runs differently. The stories that appear on Digg are there because people like you or I put those stories there. I may be sitting at my computer reading a story in the NY Times. I believe that the story is important and that a lot of people should read it. Being a subscriber to Digg, there is a link in the top right of my browser that says, *Digg the Story*.

The story is then copied over to Digg. There may be over a thousand stories at Digg for this day already. My story goes to the bottom of the list. But if you encounter that same story and you Digg it, then it receives another vote – and it moves up the list a bit. If someone else Diggs it, then that is another vote and the story moves up a bit more. If enough people agree that the story is important, then it moves to the top of the list – or the front page of the service.

This is important: Digg is not better than the New York Times. Web 2.0 is not better than Web 1.0. They are both important. They are both critical. Most of the time, today, we still need authoritative information to solve our problems. But, in a time of rapid change, we increasingly need the wisdom of the crowd, the shared experiences of other people just like us.

This is why it is so important that educators understand this new information landscape, what it means to a dynamic society, and what we need to be teaching our children today, and how we need to be teaching them.

I probably showed you a number of visualizations that the staff of Digg have created that display the Digg experience. They are available at the Digg labs site (<http://labs.digg.com/>). One of the visualizations I showed was called “Swarm,” where each time somebody Diggs a story, the person shows up as a yellow dot, connected to a white dot, which represents the story they have dug. If we watched long

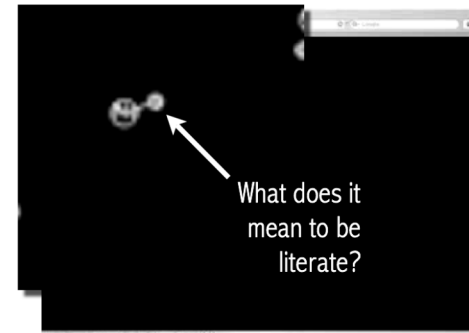


Illustration 15:

enough, you may have seen where some one Diggs another story, their yellow dot hoping over to the new story. There was also a story that lots of people were Digging, yellow dots clustering around the single white one.

As I zoomed in on one particular Digg contributor, I asked,

What do we hope he knows?

What do we hope he knows how to do?

What are the basic literacy skills we hope that he has mastered to be empowered to suggest to me what I should be reading?

What does it mean to be literate today?

In short, as information become increasingly networked, flowing to us directly from the author, then it is no longer enough say that reading is the signature for being literate. Today, it is the ability to expose what is true in the information we encounter. This certainly means the ability to read. But it includes a number of other skills involved in using content.

When information is digital, numeracy has also expanded. It is no longer enough to merely know how to add, subtract, count, and measure. Today, student must know how to employ information, whether it explicitly expresses itself as number, or if it is digital text, images, sound, video, which is structured entirely by numbers, ones and zeros.

When information is abundant – when information is overwhelming, we must work to decide what information we are going to use, and what information is not useful. We have to decide

what we are going to pay attention to, and what we are going to ignore. This means that for a message to reach its audience, it must compete for the attention of that audience.

In the information age, information must compete for the attention of its audience in much the same way and for the same reasons that products on a store shelf had to compete for attention in the industrial age. This means that students must learn more than just writing. They must learn to express ideas compellingly.

As the information environment has changed, it has also become imperative that we teach the ethical use of information. In the environment that I grew up in, we were all information consumers. Today we are active participants and information producers, and the responsibilities involved must be understood and taught to our children.

	Literacy
Information	Skill
Networked	☛ Exposing what is true
Digital	☛ Employing information
Abundant	☛ Expressing ideas compellingly
	Ethical use of Information

A Geography Lesson

In the closing of the address, I showed a picture of a 1950s or '60s style high school classroom, where the teacher was standing at the front of the class and her students were sitting in front of her. The teacher and the content were up high, and the learners were down low.

When you went into libraries back then, they had tall bookcases. We used those roly steps to be able to reach the content we needed. We wanted to knowledge, and the curriculum up high and the learners down low. This worked very well, because we could rely on gravity to drive learning.

Consider, that according to a 2007 PEW Internet & American Life Study, 64% of American teenagers have produced original digital content, and published it to real audiences over the Internet – and for the most part, Girls are chief among these content producers:

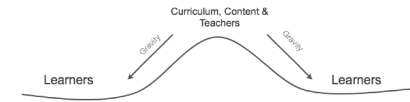


Illustration 16:

Girls	Boys	Activity
35%	20%	Write blogs
54%	40%	Use photo album sites
10%	19%	Produce & publish videos

4

How many teachers are published authors, artists, musicians, composers, film makers. We must ask ourselves the question,

From the perspective of our students information experiences, might they consider themselves more literate than their teachers?

How do we drive learning if we can no longer depend on gravity?

Learning Engine

Vinod Khosla, the founding CEO of Sun Microsystems, was recently asked at a conference about the future of *content*. He said that content is still the dominant thing. It is the company who owns the content that defines the industry. But, he continued,

One thing that I know is that in the future it will not be the company who owns the content that defines the industry. It will be the company who can grow and maintain the audience.⁵

We spend our time today reading blogs, listening to podcasts, and browsing each other Flickr albums. We are spending more time paying attention to each other as content creators and statistically less time paying attention to the traditional producers: ABC, CBS, CNN, and the newspapers. Kosla is suggesting that it will be the company who can maintain the audience as a media engine.

I would suggest that in today's converging conditions, it will take a teacher who can maintain the classroom as a learning engine. This will require learning experiences that are

- meaningfully responsive to the students work,
- involve multidimensional communication,

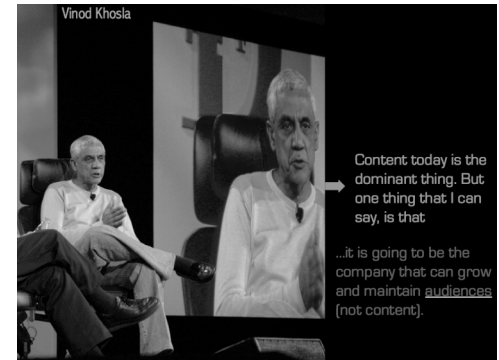


Illustration 7:

- respect and leverage personal experiences and identity,
- utilize questioning as a learning tool, not just assessment,
- measure accomplishments with a relevant reward system or currency,
- provoke investment by students,
- provide for safely made mistakes, and
- are part of a larger information economy where the currency is audience and attention.

In the End –

It's Not just
Literacy skills...

**It's Literacy
Habits**

It's Not just
Lifelong
Learning...

**It's Learning
Lifestyle.**

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