

Flat World, Flat Web, and Flat Classrooms

By David Warlick

The world is changing! No surprise! It's been happening for a long time. What is different, is the rate at which change is occurring. Media mogul, Rupert Murdoch, recently said of the emergence of recent social networks,

To find something comparable, you have to go back 500 years to the printing press, the birth of mass media – which, incidentally, is what really destroyed the old world of kings and aristocracies. Technology is shifting power away from the editors, the publishers, the establishment, the media elite. Now it's the people who are taking control (Reiss 142-47).

Perhaps the most widely read and cited description of a changing world is the recent book from New York Times reporter, Tom Friedman. In [The World is Flat](#), Friedman describes a recent working trip that he took to India, relating it to Christopher Columbus' journey from Europe to the Americas in the 16th century – searching for India. As a result of that journey, Columbus proclaimed that the world is round. Friedman, after learning about the degree to which workers in India are insourcing jobs from the United States, proclaimed, quietly, to his wife, that “the world is flat!” And then he said it to the world.

The celebrated reporter investigates the changing economic world, and offers compelling evidence that deflates the continuing view of a United States and larger industrial world as up on a hill, driving economy and wealth by gravity from a position of supreme and seemingly unthreatened height. At the same time that it cautions that much of the world still exist in valleys of disadvantage, the book makes a compelling case for a flattening world, largely as a result of rapid globalization.

More to the point of this book, a similar case can be made of the web. For most of its history, the world wide web has been a commercialized information environment that featured content developed by professional communication teams, published by trained technical staff, and distributed from expensive web servers, running increasingly sophisticated server technology. This model began to change in the late-1990s as disk storage became cheap, and new web services (most notably Blogger.com) emerged, empowering people to publish their observations, ideas, concerns, and solutions to the world, through the web, for free. A great flattening of the information landscape began to take place. Innovations continued as blogging grew, RSS was invented to engineer the flow of the information, wikis were resurrected as a collaborative tool, podcasting emerged bringing a new richness to the information, and a variety of other tools emerged. The affect was not new. In the same way that the work of Wozniak and Jobs put computing power in the hands of the people, this new web democratized content production. Anyone could become an author, radio programmer, or filmmaker – even middle school children.

I mention pre-adolescent youngsters for the sake of a new flattening to be described in just a few minutes. It is important to note that along with elements of the Dot.Com community of the previous decade, much of the energy, innovation, and the growing content of the new web came from young people, many of them still in school. Consider a finding of the Pew Internet in American Life project, that 57% of Internet using teenagers in the U.S. have produced digital content and published it to audiences on the web (Lenhart)

With that fact in mind, let's walk into a typical classroom with those students. The teacher stands in front of the class, behind a podium, lecturing down to her students, who sit, passively listening, taking notes, and hopefully capturing the message. In decades past, there was actually a riser in the front of the classroom that further elevated the teacher, teaching down to the class. Walk into that student's library. Pictures and maps are attached to the wall, up high where the students must look up to see them. The book cases are tall, and the books, those near-sacred holders of fact and knowledge, are up high, where they must fall into the hands of their readers.

We think of our classrooms and libraries as hilly places, where teachers, knowledge, and standards are up high, and learners are down low – where we can rely on gravity to drive curriculum. What happens to these hills when we consider the number of learners in these classrooms who are producing their own digital content, posting it to their audiences, engaging in conversation, during their own time, using skills that they have learned from their communities and by their own resourcefulness. How many of their teachers are published authors? How many of their teachers are recognized musicians and composers, with art work hanging in online galleries.

From the perspective of our children's information landscape, they are more literate than their teachers. **Our classrooms are flat!**

Stop reading now, and think for one minute.

The fundamental question that we must answer before the test proctor says, "Pencils down, please!" is how do we drive curriculum when we can no longer rely on gravity?

Several months ago, Vinod Khosla, a venture capitalist, founding CEO of Sun Microsystems, and immigrant from India, was interviewed at the 2005 Web 2.0 Conference by John Battelle, founder of WIRED Magazine. The interview was recorded and podcasted through ITConversations (<http://itconversations.com>). When the session was opened to the audience, a member of the audience asked Khosla about the future of **content**. The technology innovator said,

"Content, today, is the dominant thing. But one thing that I can say, is that it is going to be the company that can grow and maintain audiences, not content, that will thrive in the future. (Khosla)"

When the content that we are reading, listening to, and watching is increasingly coming from us, the audience, then the value-adding task becomes harnessing the audience, not controlling the content. This is certainly the model for many of the most celebrated Web 2.0 tools such as the Wikipedia, OurMedia, YouTube, and Del.icio.us. In a flattening information environment, Khosla suggests generating value by harnessing the audience into a content engine. In a flattening classroom, might we drive learning by harnessing our students into a learning engines? It's a radical notion that is difficult to describe and visualize. But few who are paying attention will deny that it is time for radical ideas.

The principal need when our energy source – gravity – disappears is what is going to power the learning engines. The secondary need is models. They both can be found in the same place – our students. They are perfectly familiar with learning engines. They spend hours there every day and night, and they learn. During his junior year, my son bought a digital video camera and started making and publishing videos, mostly from original footage, audio from the web, media from CDs and DVDs, digital pictures, and staged video from online video games. He had an audience for his work as he published it as a video blog.

I didn't teach him how to do this. I know that his teachers at high school didn't teach him how to do this. He resourcefully taught himself by finding people through MySpace, from blogs, and his IM buddy list who knew what he was trying to learn.

The video game itself is a learning engine. Players achieve, progress, and become the hero by learning. They try the task, fail, observe, adapt, try again, fail, observe, adapt and learn. Most of what they learn is practically useless to their future, aside from eye/hand coordination. But they are learning, and some educators are paying attention to how they are learning.

It would be a mistake, I believe, to think that we could fix education by developing more games related to curriculum and bringing them into the classroom, for the same reason that it was a mistake to think that putting computers in our classrooms would make our children smarter. What we should be doing is paying very close attention to our students social networks and their video game play. We need to identify the energy. We need to isolate and describe the fundamental elements of their experiences that make them so compelling and meaningful. And then figure out how to integrate that energy and those elements into our classrooms to engineer and power learning engines.

I would suggest, at this early juncture, four sources of energy, and five fundamental elements of the video game experience. Energy might come from...

- **Curiosity** – People want to learn. They want to know. They want explained for them what confounds them. This is true of all people unless that need to know has been shaken out of them by destructive learning experiences.
- **An intrinsic Need to Communicate and Influence other People** – We see this clearly in our students as they spend hours online writing and reading. There is energy here.

- **A Grounding in Heritage** – Learners need a context. They need something to belong to, someone or something to become, that is part of the world that they share with other people.
- **An Orientation to the Future** – This is another context, but not one that can be easily or reliably conveyed. This one should be left up to the kids, their imaginations cultivated by teaching, conversation, and curriculum.

Looking more broadly at the millennial experience with IM, Text messaging, social networks, and especially video games, we should be identifying elements of these experiences that seem to generate energy, learning opportunities, and to maintain the engine of learning. Here are six such elements that we might start to explore.

- **Responsiveness** – This is probably the hallmark characteristic of the millennial experience. All of their activities, especially video games, happen in totally responsive environments, where nearly every message, action, curiosity, inquiry, and decision is responded to in some way. Think about the clickable teacher, the clickable classroom, the clickable textbook.
- **Convert-able and Converse-able Rewards** – The rewards that students receive in their video games and online interactions are not concrete, nor can they easily be converted into concrete rewards. However, they do carry two qualities that seem especially valuable to students. One is that our youngsters want to talk about them. I frequently overhear conversations between video gamers, as they compare their levels in various games and then discuss the strategies that they used to achieve their position. There may also be some attraction to the fact that as gamers excel to new levels of play, the play environment changes. What rewards for achievement might we invent that students will want to compare and talk about, and how might we add to their rewards new classroom experiences, opportunities, and responsibilities.
- **Personal Investment** – One of the first lessons learned by video game developers, especially games where the player is encouraged to contribute to their world, is that it can't be free. When the player must acquire, either through play, developed skills, or a virtual job, currency with which they can purchase digital assets and raw materials with which they can invent and build digital assets, the game increases dramatically in its stickiness – the likelihood that players will return.

Students spend their time, effort, emotion, and learning in their classrooms. How might the classroom convert that investment into a return that students can not only identify with, talk about, and share, but also into assets that they can re-invest into more learning and intellectual accomplishment?

- **Identity** – Most video games and social networks enable participants to claim or create an identity. One of the central features of most social networks, such as MySpace and Xanga is the profile, a page that the user can establish and maintain

to express their identity. Many video games also provide for an amazing degree of personalization as players chose from an array of avatar characters, clothing, gestures, sometimes even making their own digital assets to further distinguish their identities.

At the same time that we continue to help our students to master national, state, and local standards, how might we also encourage, support, and celebrate their expertise in topics and skills of personal interest and then re-invest that expertise back into the classroom?

- **Dependability** – This one is almost too obvious to mention, within the context of teaching and learning. However, it is a core element of the compellingness of video games – that the answer is always there. There is an end and that end is reachable, and reaching it is expected. The solution to the problem only needs to be found through logic, observation, and resourcefulness. This same sense of dependability must be a part of students' formal learning, that the end is always in reach, and that the answers and skills are only a matter of working the classroom, the textbook, and the teacher.

Conclusion

When the world becomes flat, then new engines for commerce must and will emerge. The question must evolve from, "Why are we outsourcing all of this manufacturing?" to "What do I need to know to facilitate supply chain?"

When the information landscape begins to flatten, new protocols must be understood, new flows of content engineered, and audiences harnessed into content engines.

When our classrooms flatten, and our students come in more knowledgeable than their teachers about a technology that is central to our society, then the definition of teaching, learning, and education changes. Teachers become less deliverers of knowledge, and instead become engineers, harnessing their students into perpetual learning engines.

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