Introduction

ong, long ago, there was a magical invention called paper. Children learned quickly how to use this new technology for activities such as reading and writing, long before many of their teachers and parents knew how. It was so much faster, easier (and lighter!) than stone and chisel.

The children were excited about all of the possibilities of this new technology. They could express themselves to the world! However, since there were few adult role models to provide proper guidance, some children abused this newfound power. Middle school girls were known to write mean and nasty notes to one another. Boys were spending way too much time using it for playing games rather than accomplishing something worthwhile. Paper was causing all sorts of problems.

When the adults found out what the children were up to with the technology, they were horrified. Paper had to be stopped! It was making the children do bad things and they needed to be protected. And so it was decided that paper should be banned from schools. The children were not upset because they knew they could still use the new technology when they were outside of school. It was free and there was nothing to stop them from accessing all that they wanted without parents and teachers even knowing. Banning paper from the schools did not help curb the children's abuse of it. In fact, things became much, much worse.

Years later, some of the adults, particularly the educators, reconsidered the original ban and decided to embed the technology into the process of learning. Paper became the primary media of learning and entirely replaced stone and chisel. Adults provided role models every day for reading and producing content. A new literacy was born and children were taught how to apply it across the curriculum.

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It turned out that paper made life much easier. You could create content and not have to move around heavy stone. Historians credit the new paper technology for the foundation of the Renaissance and the eventual development of democracy.

Centuries later, a new and even more powerful technology emerged that started to replace paper. It was called the Internet. Once again, many children started to use it long before many of their parents and teachers knew how. As with the printing revolution, the new medium led to massive change across cultural structures, from the organization of work, to politics to medicine, personal relationships, and finally education.

We have some very important decisions to make if we want to truly prepare our children for a world in which the Internet is the dominant media. Continuing our current strategy of filtering the Internet is no longer sufficient. Children need us to be exemplary role models.

The reality is that when many of our children come home from school, they are uploading and downloading videos; they are creating their own Web sites and collaborating with peers. Their Internet searches are not filtered. In fact, as I write this, my high school age son, Dan, is in the basement with six of his friends playing video games with other people from around the world. Dan has the latest Internet video game technology and his friends have flocked to our house to connect with the world. They are operating in multiple windows, plotting mapping strategies, making collaborative and individual decisions, communicating face-to-face and across the Web. The capacity of the game is 32 simultaneous users. It is approaching 11 PM and I will have to ask them to return to their own homes soon.

If it were only about games, we could probably ignore much of what the Internet has to offer. However, as Thomas Freedman so articulately described in his book, *The World Is Flat*, connections around the world are transforming developing countries into hotbeds of engineering and innovation. Those who have the ability to manage massive amounts of information and assemble teams of high-performing workers, regardless of time zones, will have capacity to contribute more to society.

Our students deserve our thoughtful and balanced approach to tapping the Web for their learning. They need us to be role models. We must learn more about why they are so motivated to connect with people around the world. As many schools are choosing to "protect" students from the outside world, students are in turn pushing the limits. They are creating three-dimensional virtual models, using tools like MySpace to

collaboratively raise money for worthy charities, and teaching each other using podcasts and screencasts. But as we all know, for as many inspiring stories as there are, there are just as many stories, and more, of students actively plagiarizing the work of others, losing ownership of content they place on MySpace, and unknowingly putting themselves at risk. The decision not to educate our students in this new media is a dangerous one.

After more than 40 years of dominance, television has been replaced by the Internet as the primary media for presidential candidates to raise money and broadcast their messages. The use of blogs, YouTube videos, podcasts, and RSS feeds have become the foundation strategy of how we elect people to the highest office in the land. Yet, if we do not teach our students how to think critically about this media, they will not have the ability to separate the message from the medium. In this regard it is a very dangerous time.

It is also a very exciting time. Like the presidential candidates, educators can harness the power of the Internet to get their message out and to empower students to become more actively involved in managing their own learning. We can teach students critical thinking and how to be socially responsible when they use the Internet to have a globally connected voice. For example, if my son were given the chance to debate students in England about the origins of the American Revolution and his teacher were to record and podcast the debate across iTunes, he would likely be very motivated to prepare for this authentic audience—perhaps much more motivated than preparing for a test on the same subject next Friday. As soon as that podcast is posted in iTunes, he would download it to his iPod for his personal review. Today in many schools, iTunes and global communication tools are blocked, making this kind of rigorous and motivating assignment impossible.

This book was written to help educators prepare students to think critically about the information and communication they use on the Web. There are very clear answers about teaching students the "grammar of the Internet." While you read, I encourage you to think about these questions:

How much control should our schools exert when it comes to providing student access to powerful information and social tools?

How much should we tap these same tools to help students discover their way in a fast-changing world?