

Engaging Digital Natives

*Examining 21st century literacies and their
implications for teaching in the digital age.*

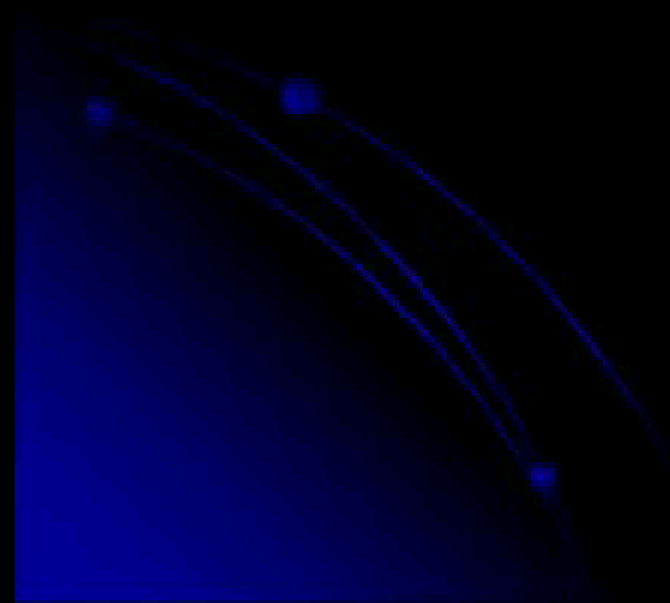
We are at a turning point in
the tech industry and
perhaps even in the history
of the world

Tim O'Reilly – Feb. 14, 2006

The Case for 21st Century Education

- Education is changing.
- Competition is changing internationally.
- The workplace, jobs, and skill demands are changing.

Did You Know . . .



Implications

- These changes, among others, are ushering us toward a world where knowledge, power, and productive capability will be more dispersed than at any time in our history—a world where value creation will be fast, fluid, and persistently disruptive.
- A world where only the connected will survive.
- A power shift is underway, and a tough new business rule is emerging: Harness the new collaboration or perish.
- Those who fail to grasp this will find themselves ever more isolated—cut off from the networks that are sharing, adapting, and updating knowledge to create value.

Implications for Schools

- For smart schools [companies], the rising tide of mass collaboration offers vast opportunity...Schools [Companies] can reach beyond their walls to sow the seeds of innovation and harvest a bountiful crop.
- Indeed, educators [firms] that cultivate nimble, trust-based relationships with external collaborators are positioned to form vibrant classroom [business] ecosystems that enhance learning [create value] more effectively than hierarchically organized schools [businesses].
 - (edits by Will Richardson, original words in brackets)

Digital Natives

Digital Natives

- “Different kinds of experiences lead to different brain structures” - Dr. Bruce D. Berry of Baylor College of Medicine.
 - it is very likely that *our students’ brains have physically changed* – and are different from ours – as a result of how they grew up

Who are the digital natives?

- Our students today are all “native speakers” of the digital language of computers, video games, instantaneous communication, and the Internet.
- Those of us who were not born into the digital world but have, at some later point in our lives, become fascinated by and adopted many or most aspects of the new technology are *Digital Immigrants*.

The Nomadic Grazing Patterns of Digital Natives

- Digital Natives are used to receiving information really fast.
- They like to parallel process and multi-task.
- They prefer their graphics *before* their text rather than the opposite.

The Nomadic Grazing Patterns of Digital Natives

- They prefer random access (like hypertext).
- They function best when networked.
- They thrive on instant gratification and frequent rewards.
- They prefer games to “serious” work.

Methodology

- Today's teachers have to learn to communicate in the language and style of their students.
 - This *doesn't* mean changing the meaning of what is important, or of good thinking skills.

Web 2.0

What is Web 2.0?

- Web 2.0 is a term often applied to a perceived ongoing transition of the World Wide Web from a collection of static websites to a full-fledged computing platform serving web applications to end users.
 - Tim O'Reilly

Web 2.0

- Static content transformed by dynamic participation
- Communities
- Networks
- Read/write

The New WWW

- Whatever
- Whenever
- Wherever
 - Tom March, Web-based educator, author, and instructional designer

The New WWW

- The New WWW—offering us *whatever* we want, *whenever* and *wherever* we want it—may seem like just an extension of our already-technology-enhanced contemporary life

Confronting the Challenges of a Participatory Culture

Media Education for the 21st Century

- “If it were possible to define generally the mission of education, it could be said that its fundamental purpose is to ensure that all students benefit from learning in ways that allow them to participate fully in public, community, [Creative] and economic life.”
— New London Group (2000, p. 9)

Participatory Culture

- According to a recent study from the Pew Internet & American Life project (Lenhardt & Madden, 2005), more than one-half of all teens have created media content, and roughly one-third of teens who use the Internet have shared content they produced.

A Participatory Culture . . .

- With relatively low barriers to artistic expression and civic engagement
- With strong support for creating and sharing one's creations with others
- With some type of informal mentorship whereby what is known by the most experienced is passed along to novices
- Where members believe that their contributions matter
- Where members feel some degree of social connection with one another (at the least they care what other people think about what they have created)

Forms of Participatory Culture

- **Affiliations** — memberships, formal and informal, in online communities centered around various forms of media, such as Friendster, Facebook, message boards, metagaming, game clans, or MySpace
- **Expressions** — producing new creative forms, such as digital sampling, skinning and modding, fan videomaking, fan fiction writing, zines, mash-ups

Forms of Participatory Culture

- **Collaborative Problem-solving** — working together in teams, formal and informal, to complete tasks and develop new knowledge (such as through *Wikipedia*, alternative reality gaming, spoiling).
- **Circulations** — Shaping the flow of media (such as podcasting, blogging).

Implications

- A growing body of scholarship suggests potential benefits of these forms of participatory culture, including:
 - opportunities for peer-to-peer learning,
 - a changed attitude toward intellectual property,
 - the diversification of cultural expression,
 - the development of skills valued in the modern workplace, and a more empowered conception of citizenship.

Implications

- Participatory culture shifts the focus of literacy from one of individual expression to community involvement.
- The new literacies almost all involve social skills developed through collaboration and networking.
- These skills build on the foundation of traditional literacy, research skills, technical skills, and critical analysis skills taught in the classroom.

The New Literacies

- **Play** — the capacity to experiment with one's surroundings as a form of problem-solving
- **Performance** — the ability to adopt alternative identities for the purpose of improvisation and discovery
- **Simulation** — the ability to interpret and construct dynamic models of real-world processes
- **Appropriation** — the ability to meaningfully sample and remix media content

The New Literacies

- **Multitasking** — the ability to scan one's environment and shift focus as needed to salient details.
- **Distributed Cognition** — the ability to interact meaningfully with tools that expand mental capacities
- **Collective Intelligence** — the ability to pool knowledge and compare notes with others toward a common goal
- **Judgment** — the ability to evaluate the reliability and credibility of different information sources

The New Literacies

- **Transmedia Navigation** — the ability to follow the flow of stories and information across multiple modalities
- **Networking** — the ability to search for, synthesize, and disseminate information
- **Negotiation** — the ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms.

Our Mission

- Our Digital Immigrant instructors, who speak an outdated language, are struggling to teach a population that speaks an entirely new language.
- How can CB encourage, model, and support teachers as we transition into a district where instruction and learning is rigorous, relevant, and supported by relationships (networks) that expand learning beyond the walls of our classrooms?