Bernie Trilling | Global Director | Oracle Education Foundation

Who I Am
I serve as the global director for the Oracle Education Foundation, directing the development of education strategies, partnerships, and services for the Foundation's ThinkQuest programs. I also represent the Foundation as a board member of the Partnership for 21st Century Skills (P21), and am the co-chair of P21's Standards, Assessment and Professional Development Committee.

I have worked on a number of pioneering educational products and services, and am active member of a variety of organizations dedicated to bringing 21st century learning methods to students and teachers across the globe. Prior to joining the Oracle Education Foundation, I was director of the Technology In Education group at WestEd, a U.S. national educational laboratory, where I led a team of educational technologists in integrating technology into both the instructional and administrative realms of education. I have also served in a variety of roles in both education and industry, including executive producer for instruction at Hewlett-Packard Company, where I helped lead a state-of-the-art, global interactive distance learning network.

Book Excerpt
(from forthcoming "21st Century Skills: Learning for Life in our Times, by Trilling and Fadel, Wiley):

No wonder net geners are different from their parents, having grown up "bathed in bits" since they were born. But there is more to it than their heightened abilities to multitask, search the Web, listen to music, update their blogs, create Web sites, make movies, play video games, and text friends on their cell phones. These young people are the first generation in history to know more about the most powerful tools for change in our society—digital information and communications technologies—than their elders: their parents and teachers. This is changing both family and school dynamics, as students switch roles and become digital mentors, and teachers and parents become part-time students of our young digital experts.

Net geners' lifelong immersion in all things digital has given them a whole new set of desires and expectations. In a recent study of more than 11,000 individuals aged eleven to thirty-one, eight common attitudes, behaviors, and expectations were found that clearly distinguish them from their parents. They want (and, more than their predecessors of the 1960s, *expect*) the following (from *Grown Up Digital* by Don Tapscott):

- *Freedom to choose* what's right for them and to express their personal views and individual identity
- *Customization and personalization*, the ability to change things to better suit their own needs
- *Scrutiny*—detailed, behind the scenes analysis so they can find out what the real story is
- *Integrity and openness* in their interactions with others and from organizations like businesses, government, and educational institutions
- *Entertainment and play* to be integrated into their work, learning, and social life
- *Collaboration and relationships* to be a vital part of all they do
- *Speed* in communications, getting information, and getting responses to questions and messages
- *Innovation* in products, services, employers, and schools, and in their own lives

These net gen expectations present new sets of demands on our education systems—demands that are coming from education's clients and customers—the growing ranks of net generation students.

Questions
There are strong indications that "multi-tasking" is really "fast serial single-tasking". If this is true:

- Are there any implications for memory and retention of content and understanding for the order in the serial sequence, or for how time is allotted to each serial task?

Recent neuroscience findings indicate a much greater role for emotions and the affective domain in learning – productive learning happens when one cares about the subject, has feelings for the importance and relevance of the the topic in their lives, has a passion for the subject, etc.

- What is happening in the affective domain when students multi-task? Do they care about one main task and "get through" the others so that they can focus on their main interest, not learning much from the "get through them" tasks? Does caring in one task spread to others if they are "close by"?

And finally, a series of big questions: just as we lost the ability to remember and recite long epic tales and stories when printing entered our culture,

- What are we losing when we become a society of multitaskers? Do we lose the ability to go deep and think through a long chain of resoning, logic and storyline?
- Do we become even more attention deficient and lose our ability to focus attention for longer than 3 minutes at a time?
- Can we still absorb long passages of text without dozing off or moving on to something else?
- Do we depend more and more on information from more emotionally gripping media sources like audio and video?
- Are we more vulnerable to manipulation being more dependent on these "hot" media types?
- Will we diminish our deep analytical abilities to focus on a problem or question for the (long) time it takes to come up with truly innovative solutions to tough problems and deep answers to important questions?