

# Educating the Net Generation

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# Educating the Net Generation

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# Introduction

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It started with our children. Trying to get them to study without the TV and radio was rarely successful. (We succeeded—temporarily—when the house had been struck by lightning and almost all the household electronics were “fried.”) Trying to concentrate with the stereo on drove us crazy, but didn’t seem to have any impact on them. None of our dire predictions about poor grades materialized. We probably rented as many games from Blockbuster as we did videos. At one point we thought we’d better find out what these games were all about. They let us try a game—something to do with Grand Prix auto racing. We both drove the car right into the wall. One dose of humiliation was enough to convince us that our visual-spatial skills would be no match for theirs, no matter how much we practiced.

The youngest used to arrive home after school and shout, “Hi, Mom, I’m home. Are you on the Internet?” Those were the days of dial-up, of course. I had to get offline so he could get on. He wouldn’t go outside with his friends until he’d checked e-mail and chatted with his online pals. It seemed odd, but to many parents, the teenage years are just that—odd.

Sometimes we’d ask them about information technology. We’ve gotten used to seeing the semi-surprised look on their faces when we’d ask what seem to be reasonable questions about technology. They were polite enough not to say, “Are you serious?” but we could tell they thought that by looking at them. And, like many parents, when it comes to getting consumer electronics information—a new cell phone plan, for example—we’d ask the kids to figure it out for us. You don’t need to ask who set up the VCRs, remote controls, and DVD players in our house, do you?

Many of you have probably had similar experiences with your children, nieces or nephews, or even grandchildren. These situations often lead us to say, “That’s not how it was when I was growing up.”

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But it all started to make more sense on Sundays. On Sunday nights we have the tradition of getting the family together for dinner. We thought we could use these occasions to help the children hone their critical thinking, powers of persuasion, and appreciation of the world around them. Well, perhaps we did. But we are the ones who learned the most.

We learned about technology. Even our least technologically inclined son could tell us things about graphics and images that we didn't know. He has a digital literacy that eludes us. We heard about experiential learning. Each one of the kids has talked about wanting—and needing—hands-on experiences to learn. At first we thought it was due to all those hours with LEGOs when they were young. We now think it is something more significant. We learned many other things as well. What we assumed was impatience is something they consider immediacy—responses are supposed to be fast. The list goes on and on.

The relevance of what we were hearing applies to more than parenting, though. We probably speak for most educators when we say that not only do we not really understand our children, but we don't really understand our students the way we'd like to.

This is a book for educators. Those who have chosen to be educators are generally dedicated to students. But, sometimes we don't quite understand what we are seeing. We hope this book will help educators make sense of the many patterns and behaviors that we see in the Net Generation but don't quite understand.

The first chapter surveys much of the literature in an effort to distill a picture of Net Generation learners—students who were born in the 1980s and later. Although no two individuals are alike, the characteristics help establish the contrast between generations. While we at colleges and universities routinely collect demographic information on our learners, we may not be asking the questions that will help us design and deliver programs that are optimal for current learners.

Having Baby Boomers talk about the Net Generation is not nearly as good as listening to learners themselves. Greg Roberts from the University of Pittsburgh—Johnstown, along with Ben McNeely and Carie Windham, both from North Carolina State University, help us understand the Net Gen perspective on technology and higher education. Their insights help us appreciate that even our definitions of technology are different. They also emphasize the importance of interactivity and learning-by-doing.

Joel Hartman, Patsy Moskal, and Chuck Dziuban from the University of Central Florida have experience with different generations of learners in online, blended,

and face-to-face situations. Their research highlights an assumption we often make: that younger students are likely to have the strongest preference for technology. Reflecting what the student authors told us, technology is simply a means to an end. The expectation for involvement with faculty and other students overrides a desire to use technology.

Even though technology may not be the entire focus, colleges and universities make massive technology investments based on what they believe students need, want, and already have. Bob Kvavik reports on the first EDUCAUSE Center for Applied Research study that details what technology students have, how they use it, and the benefits they believe result. Clearly, there is room for improvement in higher education's use of learning technologies as we move from course management systems to more interactive approaches.

Interactive instruction is the focus of Judith Ramaley and Lee Zia's chapter, based in large part on their work at the National Science Foundation. Virtually all those who study the Net Generation believe that their preference for experiential, hands-on learning is a distinguishing characteristic. The chapter details different types of interaction (for example, people to people, people and tools, people with concepts), along with examples of projects that put these interactions into practice. Beyond individual courses, how should institutions think about the curriculum, particularly if the desire is to prepare students for the 21st century? Alma Clayton-Pedersen and Nancy O'Neill use the Association of American Colleges and Universities' Greater Expectations initiative as a starting point for exploring how the curriculum can be adapted to better meet the needs of today's learners and how technology can be used in service to learning.

Although we often think of students and the classroom, an array of services and support are necessary to ensure that students succeed. Jim Wager from The Pennsylvania State University describes how student services professionals think of today's students and technology. Although he concludes that it is not about technology, technology has an important role to play in making services more convenient and in better integrating them into the campus experience.

If faculty and students have different perspectives, there should be a process to help faculty understand those different perspectives, as well as effective approaches to teaching their students. Anne Moore, John Moore, and Shelli Fowler describe programs designed to enhance the faculty's fluency in information technology—and better meet the needs of the Net Generation. Virginia Tech's program for faculty, the Faculty Development Institute, as well as one designed

for future faculty, the Graduate Education Development Institute, provide valuable models of faculty development.

If the Net Generation values experiential learning, working in teams, and social networking, what are the implications for classrooms and the overall learning environment? Malcolm Brown from Dartmouth University explores the implications of the Net Generation, learning theory, and information technology on learning spaces. Keeping learning principles in mind, he contends that learning spaces for the Net Generation will be described more by the activities they enable than the technology they contain.

Just as our notion of classrooms may need to be expanded to learning spaces, the concept of the library is evolving. Students mention Google more often than going to the library. Although content, access, collections, circulation systems, and online catalogs will always be part of the library, Joan Lippincott of the Coalition of Networked Information challenges us to realign library programs, services, and spaces with the Net Generation. Citing numerous examples from institutions around the country, she provides both a theoretical context and practical suggestions for colleges and universities to consider.

All in all, a number of changes are implied if higher education is to adapt to the Net Generation. Carole Barone of EDUCAUSE asserts that a new academy must form if higher education is to remain relevant and responsive in changing times. She describes the interplay of culture and technology along with new cultural values and a new style of leadership as some of the characteristics of the new academy. She calls on us to have the institutional resolve needed to transform higher education, starting with understanding the Net Generation.

As colleges and universities adapt to the Net Generation—and as technology continues to change—institutions must also ask, “What’s next?” Chris Dede of Harvard University describes how emerging media are fostering neomillennial learning styles. Multiuser virtual environments and ubiquitous computing will allow users to move beyond the desktop interface to much more immersive environments that enhance learning. In turn, learning styles will evolve based on mediated immersion and distributed learning communities. Dede details the implications of neomillennial learning for investments in physical facilities, technology infrastructure, and professional development.

For us, it started with our children. You may have developed an interest in the Net Generation as a result of a different experience. However you began, we hope you will join us in actively exploring the intersection of the Net Generation

and higher education. We consider this collection of chapters as a start. As more institutions begin thinking about the Net Generation, asking questions, and exploring options, we will learn more.

Because this is an area of active exploration, we have chosen to make our thoughts available in electronic format rather than as a traditional printed book. Not only will our understanding of the Net Generation change over time, but our expression of it is limited if we use text alone. We hope you will visit the Web site (<http://www.educause.edu/LibraryDetailPage/666&ID=pub7101>) for additional examples, video, and other material that enriches the text. Please share your observations with us as well.

Educating the Net Generation is a privilege and a challenge. They expect a great deal of us, just as we do of them. To find the right balance point, we need to understand each other well. We hope this book helps as you educate the Net Generation—and as they educate us.