

The Net Generation Comes to College! (Part of the Teaching First Year Students series)

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Friday, November 11, 10:00 a.m. - 11:30 a.m., Proctor 42, Knight Library

"Digitally literate, connected, immediate, experiential, social, teams, structure, engagement and experience, visual and kinesthetic, and things that matter." Educating the Net Generation, Diana and James Oblinger

A recent (2005) online study of college students at Ball State University found the following:

- 97 percent had a cell phone
- 68 percent sent text messages with their cell phones
- 14 percent sent instant messages with their cell phones
- 50 percent listed instant messaging as their top choice in communicating
- 44 percent said they couldn't live at college without instant messaging
- 66 percent log on to instant messaging programs several times a day
- 56 percent spend an hour or more daily sending instant messages

(material taken verbatim from cited sources)

Do you share some of the NetGen characteristics?

- Have you turned your "remembering" (phone numbers, meetings, and so on) over to a technology device/
- Do you go to meetings with your laptop or PDA?
- Are you constantly connected? Is the Internet is always on whether you are at home or work? Is your cell phone is always with you?
- How many different activities can you effectively engage in at one time?
- Do you play video or computer games?

The differentiating factor may not be so much one person's generation versus another; the difference may be in experience. Generational issues are relevant to higher education because the faculty or administrator perspective may be considerably different from that of our students.

Chapter 2. Is It Age or IT: First Steps Toward Understanding the Net Generation
by Diana Oblinger, EDUCAUSE, and James Oblinger, North Carolina State University
<http://www.educause.edu/ir/library/pdf/pub7101b.pdf>
Educating the Net Generation, Diana Oblinger & James Oblinger (eds.)
<http://www.educause.edu/ir/library/pdf/pub7101.pdf>

What have you noticed about this Net Generation of students? How would you describe them?

Eight Shifts of Interactive Learning

Tapscott, D. (1999). Educating the net generation. *Educational Leadership*, 56(5), 6-11.

1. From linear to hypermedia learning.

Traditional approaches to learning are linear and date back to using books as a learning tool. Stories, novels, and other narratives are generally linear. Most textbooks are written to be tackled from the beginning to the end. TV shows and instructional videos are also designed to be watched from beginning to end.

But N-Gen access to information is more interactive and nonsequential. Notice how a child channel surfs when watching television. I've found that my kids go back and forth among various TV shows and video games when they're in the family room. No doubt that as TV becomes a Net appliance, children will increasingly depend on this nonlinear way of processing information.

2. From instruction to construction and discovery.

With new technologies, we will experience a shift away from traditional types of pedagogy to the creation of learning partnerships and learning cultures. This is not to say that teachers should not plan activities or design curriculums. They might, however, design the curriculum in partnership with learners or even help learners design the curriculum themselves.

3. From teacher-centered to learner-centered instruction.

The new media focus the learning experience on the individual rather than on the transmitter...

The shift from teacher-centered to learner-centered education does not suggest that the teacher is suddenly playing a less important role. A teacher is equally crucial and valuable in the learner-centered context, for he or she creates and structures what happens in the classroom.

4. From absorbing material to learning how to navigate and how to learn.

This means learning how to synthesize, not just analyze. N-Geners can assess and analyze facts—a formidable challenge in a data galaxy of easily accessible information sources. But more important, they can synthesize. They are engaged in information sources and people on the Net, and then they construct higher-level structures and mental images.

5. From schooling to lifelong learning.

...Today, many boomers reinvent their knowledge base constantly. Learning has become a continuous lifelong process. The N-Gen is entering a world of lifelong learning from day one, and unlike the schools of the boomers, today's educational system can anticipate how to prepare students for lifelong learning.

6. From one-size-fits-all to customized learning.

The digital media enables students to be treated as individuals—to have highly customized learning experiences based on their backgrounds, individual talents, age levels, cognitive styles, and interpersonal preferences.

7. From learning as torture to learning as fun.

...entertainment has always been a profound part of the learning process, and teachers throughout history have been asked to convince their students to entertain ideas. From this perspective, the best teachers were the entertainers. Using the new media, the learner also becomes the entertainer and, in doing so, enjoys, is motivated toward, and feels responsible for learning.

8. From the teacher as transmitter to the teacher as facilitator.

Learning is becoming a social activity, facilitated by a new generation of educators.

The Information-Age Mindset: Changes in Students and Implications for Higher Education

Jason Frand

EDUCAUSE Review, Vol. 35, No. 5, September/October 2000, pp. 15–24.

<http://www.educause.edu/ir/library/pdf/ERM0051.pdf>

Ten Attributes of an Information-Age Mindset

- Computers aren't technology.
- The Internet is better than TV.
- Reality is no longer real.
- Doing is more important than knowing.
- Learning more closely resembles Nintendo than logic.
- Multitasking is a way of life.
- Typing is preferred to handwriting.
- Staying connected is essential.
- There is zero tolerance for delays.
- Consumer and creator are blurring.

Other implications of the “new students” and their learning styles:

- Is instant messaging a fad, or should it be incorporated into how institutions work with current and prospective students?
- Do the educational resources provided (e.g., textbooks, reference materials) fit the needs and preferences of today's learners? Will linear content give way to simulations, games, and collaborations?
- Does the current definition of “anytime, anywhere” equate to students' expectations that any device (laptop, PDA, cell phone) will be able to access the Web at any time and from any place?
- Do students' desires for group learning and activities imply rethinking the configuration and use of space in classrooms, libraries, student unions, and residence halls?

Observations about the NetGen

Chapter 2. Is It Age or IT: First Steps Toward Understanding the Net Generation
by Diana Oblinger, EDUCAUSE, and James Oblinger, North Carolina State University
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Digitally Literate

Having grown up with widespread access to technology, the Net Gen is able to intuitively use a variety of IT devices and navigate the Internet. Although they are comfortable using technology without an instruction manual, their understanding of the technology or source quality may be shallow.

Connected

While highly mobile, moving from work to classes to recreational activities, the Net Gen is always connected.

Immediate

Whether it is the immediacy with which a response is expected or the speed at which they are used to receiving information, the Net Gen is fast. They multitask, moving quickly from one activity to another, sometimes performing them simultaneously. They have fast response times, whether playing a game or responding to an IM. In fact, more value may be placed on speed than on accuracy.

Experiential

Most Net Gen learners prefer to learn by doing rather (than) by being told what to do.

Social

The Net Gen displays a striking openness to diversity, differences, and sharing... They seek to interact with others, whether in their personal lives, their online presence, or in class.

Learning Preferences

Teams

The Net Gen often prefers to learn and work in teams. A peer-to-peer approach is common, as well, where students help each other. In fact, Net Geners find peers more credible than teachers when it comes to determining what is worth paying attention to.

Structure

The Net Gen is very achievement oriented... They like to know what it will take to achieve a goal. Their preference is for structure rather than ambiguity.

Engagement and Experience

The Net Gen is oriented toward inductive discovery or making observations, formulating hypotheses, and figuring out the rules. They crave interactivity. And the rapid pace with which they like to receive information means they often choose not to pay attention if a class is not interactive, unengaging, or simply too slow. The Net Gen may need to be encouraged to stop experiencing and spend time reflecting.

Visual and Kinesthetic

The Net Gen is more comfortable in image-rich environments than with text. Researchers report Net Gen students will refuse to read large amounts of text, whether it involves a long reading assignment or lengthy instructions. In a study that altered instructions from a text-based step-by-step approach to one that used a graphic layout, refusals to do the assignment dropped and post-test scores increased. The Net Gen's experiential nature means they like doing things, not just thinking or talking about things.

Things that Matter

The Net Gen readily takes part in community activities. Given a choice, they seem to prefer working on things that matter, such as addressing an environmental concern or a community problem. They believe they can make a difference and that science and technology can be used (to) resolve difficult problems.

Implications

It's Not About Technology

The implication is that colleges and universities should not assume that more technology is necessarily better. Technology that enables certain types of activities is likely to be appreciated.

Communities and Social Networks

The Net Gen exhibits a tendency to work in teams or with peers and will move seamlessly between physical and virtual interactions. It is not uncommon to find students working together and still sending IMs—even though they are a few feet away. Their communities and social networks are physical, virtual, and hybrid.

First-Person Learning

Learning is participatory; knowing depends on practice and participation. Digital resources enable experiential learning—something in tune with Net Gen preferences. Rather than being told, Net Geners would rather construct their own learning, assembling information, tools, and frameworks from a variety of sources.

Interaction

The social nature of Net Geners, as well as their desire for experiential learning, implies that interaction is an important technique for colleges and universities to employ...The “talk, text, test” approach to teaching is not highly effective with most learners. Students do best when they actively construct their own knowledge. In addition, there is a positive correlation between interaction and student retention.

Immediacy

The expectation of immediacy holds true for access to friends, services, and response to questions...Although the Net Gen expects constant connections and immediate responsiveness, this is often an unrealistic expectation. Faculty may find it helpful to set expectations about e-mail turnaround; rather than instant response, it may take up to 48 hours for a response on a weekend.

Multiple Media Literacy

The Net Generation is more visually literate than earlier generations. Many are fluent in personal expression using images; they are comfortable in an image-rich rather than a text-only environment...Much of the reading of the Net Gen has been on the Web, where they are more likely to scan than to read...In fact, overreliance on text may inhibit Net Gen participation.

Questions to ask?

- Who are our learners?
- How are today's learners different from (or the same as) faculty/administrators?
- What learning activities are more engaging for learners?
- Are there ways to use IT to make learning more successful?

How the Net Gen Learns

Chapter 4. Using Technology as a Learning Tool, Not Just the Cool New Thing

by Ben McNeely, North Carolina State University

<http://www.educause.edu/ir/library/pdf/pub7101d.pdf>

Educating the Net Generation, Diana Oblinger & James Oblinger (eds.)

<http://www.educause.edu/ir/library/pdf/pub7101.pdf>

Learning by Doing

They learn by doing, not by reading the instruction manual or listening to lectures. These are the learners faculty must reach.

Human Interaction

...doing hands-on work and working in groups, students get a better grasp of concepts the professor is trying to teach. Using technology only enhances the hands-on experience; it does not—and cannot—replace human interaction.

Interaction, Not Isolation

Net Geners like the social interaction that comes with being in class with their peers. While they may use technology in their daily lives, relationships are a driving force in the learning process.

Cut-and-Paste Culture

Based on the very social nature of Net Geners and the tremendous amount of information available to students these days at the touch of a button, the traditional definition of cheating is changing. How faculty assess students is changing as well.

Filling the Attention Deficit: Reaching the Net Generation in a Traditional Classroom

Chapter 5. The Student's Perspective

by Carie Windham, North Carolina State University

<http://www.educause.edu/ir/library/pdf/pub7101e.pdf>

Educating the Net Generation,

<http://www.educause.edu/ir/library/pdf/pub7101.pdf>

Interaction

...faculty should encourage interaction both within and outside the classroom. Group work should be emphasized alongside required one-on-one meetings with faculty.

Exploration

Just as we want to learn about the Web by clicking our own path through cyberspace, we want to learn about our subjects through exploration. It is not enough for us to accept a professor's word. Instead, we want to be challenged to reach our own conclusions and find our own results. Lessons last longer, in our minds, if we understand the relevant steps to reach them.

Relevancy

...there is an increasing fear among the Net Generation that a four-year degree will be neither relevant nor sufficient preparation when it becomes time to enter the work force. Consequently, students are consistently looking for practical applications of their studies in a real-world context...Establishing relevancy in the classroom is not as simple as it sounds...Instead, more and more curricula are focusing on the notion of extension, or applying the lessons learned in the classroom to real-life problems, institutions, or organizations in the community. For the Net Generation, such curricula speak to two of its values: community service and interaction.

Multimedia

For the Net Gen, nearly every part of life is presented in multimedia format...Faculty must toss aside the dying notion that a lecture and subsequent reading assignment are enough to teach the lesson. Instead, the Net Generation responds to a variety of media, such as television, audio, animation, and text. The use of a singular unit should be kept short and alternating, producing a class period as diverse in structure as it is in content.

Instruction

...modern classrooms, faculty, and libraries must still teach and demonstrate basic research skills such as finding journals, evaluating primary sources, digging through archives, or even perusing library shelves. Today's students may believe they can learn solely on the Internet, but they cannot.

What Might You Do to Meet the Wants & Needs of Net Gen Students?

Adapted from: Educating the Net Generation, Diana Oblinger & James Oblinger (eds.)

<http://www.educause.edu/ir/library/pdf/pub7101.pdf>

Want/Need of Net Gen Students	What Might You Do in Your Classes to Address This Want/Need?
Learn by Doing: <ul style="list-style-type: none"> • learning is participatory • experiential • exploration • need to practice • doing is more important than knowing 	
Human Interaction: <ul style="list-style-type: none"> • social • teams, communities, social networks • peer-to-peer • connected all the time 	
Relevancy <ul style="list-style-type: none"> • things that matter • application to the real world 	
Multimedia <ul style="list-style-type: none"> • visual • color • auditory • kinesthetic • change modes frequently 	
Instruction <ul style="list-style-type: none"> • provide structure • provide examples • show what it will take to achieve their desired goals/grades • teach basic research/library skills 	
Immediacy <ul style="list-style-type: none"> • zero tolerance for delays • instant access • instant feedback • instant answers (“instant ...” from Laura H. May’s PPT)	
Multitasking <ul style="list-style-type: none"> • a way of life • several things being done at once • move quickly from one task to another • not the way “the book” says to do things (e.g., studying) 	

Resources

(Resource descriptions verbatim from links.)

IT Myths: The Myth About Students

Diana G. Oblinger and Brian L. Hawkins

EDUCAUSE Review, September/October 2005

Volume 40, Number 5

Colleges and universities invest significant sums in IT products and services to meet students' expectations. But even though students may be the reason for these investments, they aren't often part of the process: those making the decisions assume they understand what students want and need...

<http://www.educause.edu/ir/library/pdf/erm0558.pdf>

Educating the Net Generation

Diana Oblinger & James Oblinger (eds.)

Contributed by EDUCAUSE Learning Initiative (Formerly NLII) (2005)

The Net Generation has grown up with information technology. The aptitudes, attitudes, expectations, and learning styles of Net Gen students reflect the environment in which they were raised -- one that is decidedly different from that which existed when faculty and administrators were growing up.

This collection explores the Net Gen and the implications for institutions in areas such as teaching, service, learning space design, faculty development, and curriculum. Contributions by educators and students are included.

<http://www.educause.edu/ir/library/pdf/PUB7101.pdf>

By Chapters:

<http://www.educause.edu/books/educatingthenetgen/5989>

If Higher Education Listened to Me . . .

Kitzzy Aviles, Bill Phillips, Tim Rosenblatt, and Jessica Vargas

EDUCAUSE Review, September/October 2005

Volume 40, Number 5

Four students—representing Baby Boomers, Generation-Xers, and Millennials—discuss the use of technology in teaching and learning, the role of professors and the adoption of technology by professors, the importance of technology for social networking, and the need for more university-provided technology services.

<http://www.educause.edu/ir/library/pdf/erm0550.pdf>

Father Google and Mother IM: Confessions of a Net Gen Learner

Carie Windham

EDUCAUSE Review, September/October 2005

Volume 40, Number 5

To bridge the technology cultural gap between many faculty and administrators and the youngest generation of college students, a recent graduate reveals what being a "Net Gener" really means and how that can translate to the classroom.

<http://www.educause.edu/ir/library/pdf/erm0552.pdf>

"Engage Me or Enrage Me": What Today's Learners Demand

Marc Prensky

EDUCAUSE Review, September/October 2005

Volume 40, Number 5

Among the various types of students, one group is quickly becoming the majority and presents the top challenge for educators today.

<http://www.educause.edu/ir/library/pdf/erm0553.pdf>

The Information-Age Mindset: Changes in Students and Implications for Higher Education

Jason Frand

EDUCAUSE Review, Vol. 35, No. 5, September/October 2000, pp. 15–24.

<http://www.educause.edu/ir/library/pdf/ERM0051.pdf>

Teens and Technology: Youth are Leading the Transition to a Fully Wired and Mobile Nation

Pew Internet & American Life Project

7/27/2005 | Report | Amanda Lenhart, Mary Madden, Paul Hitlin

Today's American teens live in a world enveloped by communications technologies; the internet and cell phones have become a central force that fuels the rhythm of daily life...

http://www.pewinternet.org/PPF/r/162/report_display.asp

What I learned about Educating the Net Generation

Laura May (Mesa Community College)

<http://www.mcli.dist.maricopa.edu/mlx/slip.php?item=1768>

Links to the PowerPoint presentation

The Internet Goes to College: How Students are Living in the Future with Today's Technology Pew Internet & American Life Project

9/15/2002 | Report | Steve Jones, Mary Madden

The goal of this study was to learn about the Internet's impact on college students' daily lives, and to determine the impact of that use on their academic and social routines...

http://www.pewinternet.org/report_display.asp?r=71

The Back to School: It's All about the Students Issue

EDUCAUSE Review, Vol. 40, No. 5, September/October 2005.

<http://www.educause.edu/apps/er/erm05/erm055.asp>

The Net Generation Goes to College

Tech-savvy 'Millennials' have lots of gadgets, like to multitask, and expect to control what, when, and how they learn. Should colleges cater to them?

By Scott Carlson

The Chronicle of Higher Education, from the issue dated October 7, 2005

Section: Information Technology; Volume 52, Issue 7, Page A34

<http://chronicle.com/free/v52/i07/07a03401.htm> (may require log-in)

Lectures on the Go

As more colleges use 'coursecasting,' professors are split on its place in teaching

By Brock Read

The Chronicle of Higher Education, from the issue dated October 28, 2005

Section: Information Technology; Volume 52, Issue 10, Page A39

<http://chronicle.com/weekly/v52/i10/10a03901.htm> (may require log-in)

Digital Natives, Digital Immigrants

By Marc Prensky

From *On the Horizon* (NCB University Press, Vol. 9 No. 5, October 2001)

© 2001 Marc Prensky

<http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>

Digital Natives, Digital Immigrants, Part II: Do They Really Think Differently?

By Marc Prensky

From *On the Horizon* (NCB University Press, Vol. 6, December 2001) I. 9 No.

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<http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part2.pdf>

"IM here" Reflections on Virtual Office Hours

by Shannon L. Roper and Jeannette Kindred

In *First Monday*. A peer-reviewed Journal on the Internet.

Abstract: AOL Instant messenger (IM) was used over four semesters as an additional way for students to contact us during office hours. Since college students primarily use IM as a way to interact socially with their friends and family, we were curious if students would use IM to contact us, who would use it, how often they would use it, and what the content of the IM interactions would be. After two years of collecting all IM exchanges with students, we found that students did use IM to contact us on a regular basis. Both male and female students in roughly equal numbers used IM. In addition, a majority of the exchanges were task related; that is, questions and comments relating to a particular course or assignment. Results, personal reflections, and suggestions for future research are discussed.

http://firstmonday.org/issues/issue10_11/roper/#r1

Brown, J.S. (2000). Growing up digital. *Change*, 35(5), 10-20.

http://www.johnseelybrown.com/Growing_up_digital.pdf

Tapscott, D. (1999). Educating the net generation. *Educational Leadership*, 56(5), 6-11.

(Full-text available from UO Libraries)