Gen Y: Who They Are and How They Learn

by Alison Black

Each generation seems to lament the characteristics of the generations that follow. Today, however, with a student population unique in traits that impact teaching and learning, differences between teacher and learner generations must be recognized, analyzed, and addressed if faculty in higher education are to meet the needs of students.

In spring 2008, as part of a Faculty Leadership Pilot Program, I interviewed a number of key administrative personnel throughout my college and attended a variety of meetings. A common concern heard was the changing nature of today's students and the growing challenges of meeting their needs. In an attempt to determine if and how students are different, I began to consider my own teaching experiences of the past twenty years; I spoke with faculty and administration and read the growing body of literature regarding today's students. This article is a result of my findings regarding the characteristics of today's students, with a focus on how they use information and learn.

Defined here as those born between the years 1981 and 2001 and numbering more than seventy-six million, college students today are proficient in technology and communicate more continually with their parents. They are often seen as the "everyone gets a trophy" (or an "A") generation (Masie 2004). Following upon the heels of Generation X, this new generation has been called Generation Y, Gen Y, or Millennials. For the sake of consistency, they will be referred to here as Gen Y.

The Characteristics of Today's Students

The following two tables (adapted from Upcraft 2002) focus on the years 1969 and 2009, noting the changing demographics of students (table 1) and their changing characteristics (table 2, p. 94).

1969	2009
Caucasian	All races and ethnicities
Majority were men	Majority are women
Enrolled full-time	Growing part-time enrollment
Aged 18–22	Ages 18 and older
Graduated in four years	Graduate in six years or more
Majority lived on-campus	Majority live off-campus
Abled	Abled and disabled
Presumed heterosexual	All sexual orientations
May have worked part-time on campus	Work part-time or full-time off-campus
Attended community college *or* four-year college	Increasing number attend both community college *and* four-year college
Native-born to United States	Increasing number of immigrants
Middle-class	Increasingly diverse cultural, economic, and geographic backgrounds

Table 1: Changing Demographics of Students

Most of the changes are self-explanatory. However, the last two, "Increasing number of immigrants" and "Increasingly diverse cultural, economic, and geographic backgrounds," have a great impact on teaching and learning.

The student population in higher education has shifted from U.S. native-born to a mix of many nationalities based upon the increasing number and variety of immigrants to this country. Today's college students, unlike their counterparts forty years ago, are from diverse cultural, economic, and geographic backgrounds. As the United States population continues to shift from a predominately middle-class, European American composition, those changes will continue and impact who students are, what they need, and how they learn. In 1969, the student population in higher education resembled that of the faculty. In other words, university instructors usually taught students who resembled them in race, ethnicity, socioeconomic background, and religion. The distinct changes in demographics of today's student body mean that, although higher education faculty is slowly becoming more diverse, most faculty members are or will be teaching students who come from different backgrounds than theirs and who have had much different experiences.

Why is it important to note such changes? As institutions of higher education consider how best to meet the needs of their students, they will need to adapt policies and practices based upon a realistic picture of their student bodies. As instructors struggle to teach such students, they will need to understand who these students are.

1969	2009
Politically more liberal	Politically more conservative or independent
General learning orientation	Vocational/career orientation
Family/self-financed	Government/family/self-financed
Academically prepared	Lacking basic skills
Competitive	Collaborative
Worked and studied alone	Group work, team work
Lack of experience with diversity	Acceptance of diversity, more tolerant
Unsure of self	Assertive and confident
Low debt after college	High debt and defaults on loans after college
Friendships bound by proximity	Friendships not bound by geographical limits
Idealist—any problem can be solved	Cynical—aware of global warming and other world issues but still hopeful
Rejection of organized religion	Growing importance of spirituality and religion
Took responsibility for self	Growth of helicopter parents who hover and assume responsibility for college-age children
Acceptance of institutional structure (i.e., food, dorms, etc.)	More demanding consumers with customer expectations of immediate service
A privilege to attend college	An expectation to attend college; entitlement
Family stability	Family instability
Physically fit	Growing problem of obesity
Rejection of values of parents and society	Sharing values of parents and society
Mentally healthy	Less mentally healthy
Dependent upon note-taking; paper and pencil	Dependent upon technology; "digital natives"

Table 2: Characteristics of Students

"Digital Natives"

The last issue in table 2, technology, is of specific importance because it is transforming the very landscape of teaching and learning. Today's student is "dependent upon technology" and has been called a "digital native." That change is perhaps one of the most fundamental because its repercussions impact how students learn and how they need to be taught.

Growing up in a world dominated by the Internet, many of today's students were born after the introduction of the microcomputer. They are far more comfortable using a keyboard than writing in a notebook and happier reading from a computer screen than from paper they can hold. Constant connection with friends and family at any time and from any place is of vital importance to them.

Marc Prensky (2005/2006) created the term "digital native" to refer to Gen Y. He observed that, despite the arrival and rapid

dissemination of digital technology in the latter part of the twentieth century, "schools are stuck in the twentieth century. Students have rushed into the twenty-first century. How can schools catch up and provide students a relevant education?" (p. 8).

Digital natives, fluent in acquiring and using technological tools and learning this technology quickly with an intuitive understanding of digital language, seem to use these tools as an extension of their brains. As members of the first generation to grow up with digital technology, they can speak its language. Since birth, Gen Y has been surrounded by visual electronic media, from *Sesame Street* to MTV and from home computers and video games to cyberspace, networks, and virtual reality. This generation is accustomed to instantaneous hypertext, downloaded music, communication via cell phone and text messaging, and information from laptops.

Digital natives multitask and prefer visuals to graphics and text. They are intricately connected or networked via cell phone, blog, Facebook, and YouTube, thriving on instant gratification and preferring games to work. In fact, they do not remember and cannot imagine a world without digital technology (Frand 2006).

It is no wonder, then, that faculty and administration in higher education often feel like "digital immigrants," those not born into this digital world. Like previous immigrants, so-called "Silver Surfers" (CIBER 2008, 21) will adapt to the new culture better than others, but most older Americans will retain their accents from the "old world"—the use of or memory of a world of pen and paper (Simpson 2007).

Although Gen Y is often seen as lacking commitment and fearing intimacy, the rise of social networks via technology is redefining the very concept of friendship to include cross-country and international relationships and conversations that flourish online. Although that may be true, too often those friendships and conversations are artificial and only surface deep. High school students compete for the most friends online, numbering them in the hundreds. Many such friendships are characterized by a focus on self, constant expectations of speaking to an audience, and sharing of personal, even intimate, information. Relationships may be created online, but they are also terminated there. The distance and relative safety digital technology affords its users have often produced a lack of online manners and responsibility as well as insensitivity and even cruelty to others. Another manifestation can be harsh, anonymous criticism, a key element in the growth of online bullying, especially among young adults.

On the positive side, digital natives serve as ambassadors who are bringing cultures, countries, and religions closer with online communication (Nasseh 2002). Although Gen Y seems to prefer physical isolation in social and learning activities, it works well collaboratively and is comfortable and eager to contribute to the knowledge bases of the digital community. Ironically, Gen Y may be simultaneously the most-socialized generation in the digital world and the most-isolated generation in the physical world.

Yet for all those definitions of Gen Y, like other generations, there are many exceptions and contradictions. For example, Gen Y students are aware of body image and well-informed about diet and exercise, but trends indicate that one-third of them will be obese by 2013 (West 2005). They embrace new technology but seem complacent about political issues. They declare that the Internet has made physical appearance unimportant and believe that what one has to say is what is truly important. However, their heroes are the highly paid and visible performers and sports stars in today's media.

Digital natives have spent their formative years in an age that gave rise to the World Wide Web. They have no memory of or nostalgia for a pre-Internet history. Just as the Vietnam War defined the Baby Boomers, Afghanistan and the Iraq War as well as the "War on Terror" may define Gen Y.

The social, economic, and cultural changes in this country and in the world are driving the changes in today's institutions of higher education. Many educators, as digital immigrants, are still teaching in ways that worked for them ten years ago or more. As educators become increasingly aware of the changing landscape of higher education and the changing characteristics of today's students, they need to determine how they can best address the needs of today's students.

How Gen Y Uses Information and Learns

Throughout the twentieth century and into the twenty-first, the role of technology in teaching and learning has evolved. More than fifty years ago, Skinner (1954), the famous behavioral psychologist, declared that humans were on the brink of great change and that an extensive revision of educational practices was inevitable. Suggesting that programmed learning and testing machines form a part of an overall improvement in teaching techniques, Skinner also prophetically proposed using machines to perform most of the teacher's tasks.

At a session of the 2002 National Learning Infrastructure Initiative annual meeting, a faculty member asked two students, "What is the most difficult thing about being a student these days?"

> The students had the same answer: "Having to sit through a class lecture without being able to check e-mail, surf the Web, or listen to music." Another participant asked the faculty member, "How would you have answered that question?" The faculty member thought for a moment and said, "I would have answered calculus." (Barone 2002, 64)

The exchange highlights the disconnect between many faculty members and students on college campuses today.

As a result of the changing environment and the sheer volume of its interactions with technology, Gen Y thinks and processes information differently from past generations. Some research even suggests a physiological difference between the brains of digital natives and those of adults from previous generations. Specifically, early exposure of infants and young children to various stimuli can affect neurological development or the evolution of neural networks; therefore, in this view, children reared in a media-rich, interactive digital environment tend to think and learn differently because they are physiologically different from those reared in a non-digital environment. Their learning styles are no longer ours and conversely, "[W]e are not them because our world is not theirs" (Fausto-Sterling 2000, 1254).

Gen Y is being shaped by digital technology, transforming the human brain and the way we think. One authority believes that the

human brain's digital input has rewired it, helping it to respond faster, sift out information, and recall less (Woods 2006). The sheer mass of visual, auditory, and verbal information in today's world is forcing digital natives to edit, sift, and filter more. For example, the brevity of text messaging has spread to e-mail and other communications, rewriting English with simpler spelling and symbols. In addition, Gen Y processes information in narrative images, with text supplemented or even supplanted by symbols and visuals.

Today's students have grown up with the speed of video games and MTV. They have little patience for lectures, step-by-step instruction or thinking, or traditional testing. Compared to their experiences with digital technology, they find traditional teaching methods dull. Yet, despite the differences in their learning, it is still recognizable:

> [T]hey're already busy adopting new systems for communicating (instant messaging), sharing (blogs), buying and selling (eBay), exchanging (peer-to-peer technology), creating (Flash), meeting (3D worlds), collecting (downloads), coordinating (wikis), evaluating (reputation systems), searching (Google), analyzing (SETI), reporting (camera phones), programming (modding), socializing (chat rooms), and even learning (Web surfing). (Prensky 2005/2006, 10)

Nonetheless, the gains in technical expertise and informal knowledge may be offset by students' shorter attention spans and lack of depth in learning. Although Gen Y may be adept at obtaining data, many lack the sophistication to understand and evaluate the information they retrieve (CIBER 2008; Franklin 2005; Hall 2006). Despite Gen Y's familiarity with computer technology, students rely heavily upon search engines, view rather than read, and lack many critical or analytical skills needed to evaluate the information they find (CIBER 2008).

The learning focus remains on information, but the vehicles to access it have changed fundamentally. Consider how digital natives search the Internet for information. They launch search engines, scour sites, and interact through MOOs and Usenet groups, both following existing links and launching new ones. It can be a serious journey of learning, one that builds elaborate information networks. It is also a remarkable interactive and collaborative process, but not in the traditional sense many digital immigrants understand, because most students participate by sitting alone in their rooms.

The nature of human interaction with the digital world is evolving in both speed and sophistication. Most digital immigrants view each technological device as a new challenge to learn, while digital

natives see each device as a continuously evolving and improving facet of their lives to use, not just figure out. Gen Y is used to and needs multiple streams of information. It is an energetic generation in need of constant stimulation and challenge, and one that is often bored in traditional classrooms. Such students prefer inductive reasoning, desire frequent and quick interactions with content, and display exceptional visual-literacy skills, all essential when navigating the digital technology used today.

Digital natives approach learning as a plug-and-play experience. They use interactive games for enjoyment, challenge, and learning. Viewing interactivity as a key component of technology-based learning activities, they expect those types of activities in their college classrooms. Today's students simply plunge in and learn through experimentation and active participation. Their learning is nonlinear, epitomized by jumping from one Internet site to another. Instead of reading an entire chapter in a text, they may detour to track an idea or specific information of interest and never return to the starting point.

What happens when digital natives meet digital immigrants? The technological gap could have serious repercussions for teaching and learning in higher education. Members of Gen Y accept continuous change in their technology, and they also expect teachers and schools to keep up.

Based on table 2, the implications of Gen Y's changing nature include a student body that is:

- often unprepared for the level of work expected because it lacks basic skills, especially in mathematics, reading, and writing;
- collaborative and works and learns best with others;
- assertive and confident, and therefore more demanding of higher grades and greater accommodation to its needs;
- supported emotionally and financially by "helicopter parents," who also have customer expectations of higher education; and
- dependent upon and extremely comfortable with technology and has expectations of these tools in its learning.

The way in which Gen Y learns has been called "mediated immersion" (Oblinger and Oblinger 2005). It is characterized by greater fluency in media use, more collective sharing and learning, and a cooperative design of learning experiences. Gen Y wants lectures and other face-to-face teaching supplemented with material and activities online. It also wants more learning in realistic contexts as well as simulated environments and the use of more non-linear texts (Mills and Sharma 2005).

The challenge for higher education faculty lies in repairing the digital disconnect between natives and immigrants. That may be accomplished by engaging students with effective teaching strategies. In a sense, little has changed: good teaching has always focused on students' needs. The combination of the new generation and new digital tools, however, is forcing a rethinking of the very nature of education in both content and delivery. In understanding who Gen Y's members are and how they learn, faculty will be able to determine how to engage them in and beyond the classroom.

Conclusion

The changing nature of college students and their needs in an increasingly global-oriented society are the primary impetuses for educational change, because the success of higher education will depend upon its ability to respond successfully to such change. Educators are becoming more aware that Gen Y has considerably different experiences and expectations and that it even thinks and processes information differently than students of the past. As digital natives, students of Gen Y have been surrounded by computer technology since birth; they know it well, they use it constantly, and they expect it in the classroom.

The ultimate goal of education is helping students gain the skills to live, learn, and work successfully within society. Today that means becoming information seekers and evaluators as well as problem-solvers and decision-makers. Overcoming the constraints of time and space, information technology serves as a tool of empowerment for the individual. It is the challenge of educators today to support and utilize this extraordinary tool in meeting the needs of Gen Y and those who follow. The institutions of higher learning that will continue to thrive are those that succeed in this undertaking.

Despite the relentless focus on technology, it is not really what is important: it is the educational and social implications of the technology. Therefore, as students become increasingly physically isolated as well as demanding of and dependent upon technology, university administrations may need to consider selecting faculty for their empathy and guidance skills as much as for their content expertise. Such characteristics are, after all, those of the teachers we remember.

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