

Why Professor Johnny Can't Read: Understanding the Net Generation's Texts

by Mark Mabrito and Rebecca Medley

In the last two decades, computer-enhanced learning has exploded to the point where almost every college campus markets its cutting-edge technology resources. Part of the impetus behind this growth is an attempt to address the needs of a fundamentally different type of learner who has been identified in the literature as the Net-Generation, or N-Gen, student (Barnes, Marateo, and Ferris [2007](#); Hendricks [2004](#)). What distinguishes this group of learners, who were born after 1982, from previous generations is the fact that they have come of age in a digitally enhanced world and, consequently, their understanding of the world has come primarily from digital sources (Tapscott 1998). Prensky ([2001](#)) characterizes these students as "digital natives" because they represent the first generation of students to grow up with pervasive digital technology.

One indicator of the extent and type of differences between the Net Generation and previous generations of learners are the texts that N-Gen learners create and consume. Surrounded by digital media and technology-enhanced texts of all kinds, these students have developed specific skills and knowledge to read, understand, and create these texts (Pinker 1994). Faculty who teach these students, however, may have difficulty reading and understanding these texts. Much in the same way that Rudolph Flesch's 1955 landmark book *Why Johnny Can't Read* criticized the American educational system for not teaching phonics, we suggest that today's instructors are missing an opportunity by not learning to read the texts of the Net Generation. Failing to recognize these texts as valuable tools in the teaching and learning process, professors dismiss an entire constellation of literacy skills. This article explores the nature of N-Gen texts as a reflection of the cognitive differences between N-Gen students and their older instructors, discusses the unique challenges this group of learners may present for instructors who do not share their technological immersion, and suggests the means by which such challenges may be overcome.

The Challenge of Net-Generation Learners

Much has been written about the way in which the N-Gen learner acquires and processes information ([Exhibit 1](#)). Coming of age in an environment saturated by technology, where the digital world interacts more and more seamlessly with the "real" world, means that these students represent the first generation of virtual learners—learners accustomed to seeking and building knowledge in a technology-enhanced environment. When these learners seek information, they are more likely to look for it online than anywhere else since this is the environment with which they are most familiar.

Are educators rising to the challenge of teaching these students? Some evidence suggests that they are not. The most significant problem may be that since most faculty members do not fit the profile of the Net Generation, they most likely do not share the same learning styles as their students. While many faculty members are technologically literate, routinely using computer resources in research and teaching, most did not grow up in the digital culture common to many of their N-Gen students. As a result, while N-Gens interact with the world through multimedia, online social networking, and routine multitasking, their professors tend to approach learning linearly, one task at a time, and as an individual activity that is centered largely around printed text (Hartman, Dzubian, and Brophy-Ellison [2007](#)).

This distinction is important. Research in social psychology suggests that culture influences not only what a person thinks about but also how he or she thinks; that is, strategies for processing information may differ according to the culture in which a person matures (Peng and Nisbett 1999). Additionally, recent studies in

brain research seem to indicate that the brain may actually be changed by repeated and prolonged exposure to the same stimuli (Nandini [2005](#)), a phenomenon referred to by Trojan et al. ([2004](#)) as "adaptational neuroplasticity" (104). This research points to the possibility that N-Gen students are literally wired differently from previous generations, their brains shaped by a lifelong immersion in virtual spaces. Repeated and prolonged exposure to the digital world may mean that N-Gen students process and interact with information in a fundamentally different way from those who did not grow up in this environment.

Not having been raised in the world of the N-Gen student, then, presents some significant challenges for faculty members who must attempt to address the needs of a learning style they have never experienced, may know little about, and may be unable to comprehend fully because of their different skills in processing information.

The Net Generation and Their Texts

One way of better understanding how the N-Gen student processes and interacts with information is to study the online texts through which they do so. These texts often serve to present the author to the digital world and may be collaboratively composed and edited; they are frequently multimodal, integrating words, graphics, sound, and video. Digital texts are the media by which these learners develop social identity ([Exhibit 2](#)) as well as interact and engage in collaborative knowledge building ([Exhibit 3](#)). Consider, for example, the popularity of online sites such as [MySpace](#), [Xanga](#), and [LiveJournal](#), all of which started out essentially as online diaries but that have now spawned vast social networks that afford opportunities for the N-Gen student to publish everything from words to multimedia while interacting with a community of like-minded learners. Sometimes N-Gen texts more closely resemble traditional text, such as in blogs ([Blogger](#), [WordPress](#)), but even blogging is rich with opportunities for collaboration and interaction not available within the confines of traditional text ([Exhibit 4](#)). N-Gen texts may also be visual, presented via photo- and video-sharing sites like [Flickr](#), [Facebook](#), and [YouTube](#). Finally, the texts of this generation may take the form of virtual worlds, such as [Second Life](#), where the text is virtual reality, a graphical representation of a space that a reader may navigate in the form of an avatar ([Exhibit 5](#)). The content of these texts is not linear but dynamic, requiring N-Gens to develop ways of thinking that differ altogether from those of their professors (Nandini [2005](#)).

The end result is something remarkably different from the texts of previous generations. Many faculty members developed their writing skills in a print world where text took the conventional form of paragraphs on a page or was packaged as a book or an article, a story or a novel; its production was typically conceived of as a solitary act. Consequently, their previous experiences with and understanding of text are quite different from that of the N-Gen student, which may lead to profound misunderstandings. When instructors perceive linear, print-based texts as a benchmark, the N-Gen's texts may, at first glance, fall quite short. However, these digital texts do not necessarily lack style, coherence, or organization; they simply present meaning in ways unfamiliar to the instructor. For example, a collection of images on Flickr with authorial comments and tags certainly does not resemble the traditional essay, but the time spent on such a project, the motivation for undertaking it, and its ability to communicate meaning can certainly be equal to the investment and motivation required by the traditional essay—and the photos may actually provide more meaningful communication for their intended audience.

It follows then that instructors could begin to understand N-Gen learning processes by studying these texts. The spaces where N-Gen students construct a social identity, communicate with their peers, and interact with other media should not be dismissed as venues for mere entertainment or social acceptance. Indeed, they are much more than that. The cyberculture and its texts have allowed N-Gen students to cultivate their inherent ability to adapt to new tools, language, and artifacts as they are developed within digital spaces (Steinkuehler, Black, and Clinton 2005; Clark [2002](#)). These spaces are highly active learning communities, producing the virtual textbooks of this generation's life--constantly changing artifacts that may provide a glimpse into how these learners have evolved as readers and writers of virtual texts.

Implications for the Classroom

How does what we learn by studying the N-Gen's texts compare with what happens in the classroom? Gee (2007) points out a key distinction:

Classrooms tend to encourage and reward individual knowledge stored in the head, not distributed knowledge. They don't often allow students to network with each other and with various tools and technologies and be rewarded for doing so classrooms tend to narrowly constrain where students can gain knowledge, rather than utilize widely dispersed knowledge. (103)

While interaction certainly exists in a traditional classroom, much of the pedagogy is built on models that require solitary, independent learning. A glimpse into the world of the N-Gen's texts seems to indicate that these learners have grown up doing the very things that traditional pedagogy discourages. When viewed in this context, the N-Gen student may appear deficient, lacking the skills necessary to succeed in the academic world. Texts that do not look like books or essays and that are structured in unfamiliar ways may leave educators with the perception that the authors of these texts lack necessary literacy skills. Are these students missing something, or are they coming to us with skills as researchers, readers, writers, and critical thinkers that have been developed in a context that faculty members may not understand and appreciate? The striking differences between the linear, print-based texts of instructors and the interactive, fluctuating, hyperlinked texts of the N-Gen student may keep instructors from fully appreciating the thought processes behind these texts. Learning how to teach the wired student requires a two-pronged effort: to understand how N-Gen student understand and process texts and to create a pedagogy that leverages the learning skills of this type of learner.

Learning Spaces and Alternate Classrooms

One way to build a stronger understanding of the N-Gen student is by participating in the same learning spaces where this generation spends so much time. For some, this requires a shift in pedagogical thinking. We must think of places where N-Gens create, consume, and reshape text not as strictly entertainment or social gathering places but as alternate classrooms ([Exhibit 6](#)). Many of the skills that N-Gens develop while participating in these spaces are skills that could serve them well in certain learning environments, particularly those framed by the principles of social constructivism ([Exhibit 7](#)). Faculty members can capitalize on N-Gen students' facility with cooperative and collaborative virtual environments to make Web-based social media spaces, such as [MySpace](#), into alternate classrooms ([Exhibit 8](#)). By moving learning out of the physical classroom or even out of the more recent online classroom into these other worlds, we can create more effective pedagogies that situate learning in a familiar context, thereby increasing N-Gen students' motivation for learning.

Current curricula in most colleges and universities are constructed within a linear, sequential model, providing distinct courses and programs of study. Faculty members need to consider that such models may not necessarily facilitate the building of alternate classrooms. These classrooms most likely will feature less well-defined boundaries, multidisciplinary and cross-disciplinary approaches to learning, and an emphasis on experiential learning.

Pedagogy for the N-Gen Student

Attempting to capitalize on the skills N-Gens already possess will be one effective approach to formulating pedagogy for these virtual learners. The processes we see at work in N-Gen texts are similar to those that

social constructivists suggest should structure classroom instruction. Current approaches to integrating social constructivism in the classroom recognize a practice that privileges dialogue among student writers as a means of discovering ideas and developing thinking, assumes that meaning is discovered through shared social experiences (Vygotsky 1978; Bruffe 1984), and recognizes that computer-networked collaboration and communication can help facilitate this experience (Bump 1990; Duin and Hanson 1994). Similarly, Wenger (1998) posits the concept of the community of practice, a group of individuals participating in communal activity and creating a shared identity by contributing to the practices of their communities. Some contemporary pedagogical research has already suggested such approaches, including privileging group work and using technology to meet N-Gen students' particular learning needs and strengths ([Exhibit 9](#)).

However, this shift in pedagogy cannot happen rapidly. Even as we are learning more about the N-Gen learner, our pedagogy for addressing the needs of this type of learner has not kept pace. Two factors will drive the adoption of a pedagogy that accesses the strengths of N-Gen learning styles for education. First, faculty members must spend time in the learning spaces of N-Gen students in order to develop an understanding of how N-Gen literacies and learning styles develop. We need to experience these learning spaces as learners before we can understand how to use them as teachers.

Secondly, and equally important, faculty members cannot be expected to construct such classrooms without a tremendous amount of institutional support. Some institutions have already acknowledged the need for support. For example, [Ohio University](#) and [Harvard Law](#) have established campuses in *Second Life*. However, a recent Pew Internet research report found that middle and high school students report a substantial disconnect between how they use the Internet for school at home and how they use the Internet at home for personal use (Levin et al. [2002](#)). So while innovation is happening on some fronts, more institutional support as well as a rethinking of educational models needs to happen.

Conclusion

We must continue to find ways to give N-Gen students more control over their learning environments by allowing them to build social networks within and across learning experiences, helping them to cultivate the research and writing skills that they have developed online, and packaging course content in ways that match their learning styles and optimize their strengths. Such change must be built upon a solid understanding and acceptance of the students we are attempting to teach. One of the stumbling blocks to developing a pedagogy for the Net Generation is that not all faculty members are connected to this group of learners in significant ways. What we see here is not a generation gap but an information processing gap. It is not merely a question of learning facts about the Net-Generation culture or how to operate the latest technology; faculty members need to focus more on attempting to experience the digital world in the same way that their students do. It is not enough for instructors to accept that learning may occur in these places; they must go there as well as scholars with information to share, as researchers attempting to gain insight, and, more importantly, as learners acquiring a new kind of understanding.

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