Mind the Gap

A Discussion on the Effects of the Generation and Technological Literacy Disparity on Innovation
Disclaimer

The generations (and the people within them) are multidimensional and some of the characteristics don’t fit each member of each generation.
The generations defined

*No chronological endpoint has been set for this group. For this analysis, Generation Z is defined as those ages 7 to 22 in 2019.

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**Digital Natives**
18 year olds = born in 1983

Generation Y
(Millennials)
1981 to 1996

**Digital Immigrants**

Generation X
1965 to 1980

Baby Boomers
1946 to 1964
“Different kinds of experiences lead to different brain structures,” says Dr. Bruce D. Perry of Baylor College of Medicine.

“As we shall see in the next installment, it is very likely that our students’ brains have physically changed – and are different from ours – as a result of how they grew up.

“But whether or not this is literally true, we can say with certainty that their thinking patterns have changed...”
What changed?

“I went to a highly ranked college where all the professors came from MIT,” says a former student. “But all they did was read from their textbooks. I quit.”
What changed?

“In math, for example, the debate must no longer be about whether to use calculators and computers – they are a part of the Digital Natives’ world – but rather how to use them to instill the things that are useful to have internalized, from key skills and concepts to the multiplication tables. We should be focusing on “future math” – approximation, statistics, binary thinking.”

Increasing pace of course delivery and access to nonlinear hypertext
Fast Forward to 2008
Digital Natives

Born in the 1980s

Grew up on early BBS and Usenet

Twitter was 2 yrs old
YouTube was 3 yrs old
Facebook was 4 yrs old

Introduces idea of digital settlers

Palfrey & Gasser
2008
What changed?

“[Students] read blogs rather than newspapers...meet each other online before they meet in person. [They] get their music online—often for free, illegally—rather than buying it in record stores. [They] send an instant message (IM) than to pick up the telephone to arrange a date later in the afternoon.”
What changed?

“Some older people were there at the start, and these ‘Digital Settlers’—though not native to the digital environment, because they grew up in an analog-only world—have helped to shape its contours. These older people are online, too, and often quite sophisticated in their use of these technologies, but they also continue to rely heavily on traditional, analog forms of interaction. Others less familiar with this environment, ‘Digital Immigrants,’ learned how to email and use social networks late in life.”
“The Internet has unleashed an explosion of creativity— and along with it thousands of new forms of creative expression—on a vast scale. These new forms of expression are unlike anything the world has ever seen before. Digital Natives are increasingly engaged in creating information, knowledge, and entertainment in online environments.”

What changed?

Remixing content and fostering collaborative and team-based opportunities in the classroom.
Fast Forward to 2018
Digital Natives
18 year olds = born in 1983

Generation Y (Millenials)
1981 to 1996

Generation Z
1987 to 2017

Digital Immigrants

Generation X
1965 to 1980

Baby Boomers
1946 to 1964

Lynn Reid
2018
“...Criticisms of the notion of instructors as digital immigrants tend to focus on the ways that teachers are constructed as relatively powerless or even fearful as advances in technology outpace their ability to keep up.

These assumptions may lead instructors born before the era of the digital native to avoid using technology in their teaching because they feel unprepared to learn it themselves and are concerned about losing credibility and authority with students who are more readily able to adapt to such changes.”
“Additionally, returning adult students whose age might place them into the category of digital immigrants might find that their technological skills are underutilized or, if they have internalized the label of digital immigrant, they may be fearful of approaching what they perceive to be high-tech learning tasks, such as creating a video or podcast.”
What changed?

“While it is certainly possible that younger students may be more adept users of technology than people born before 1980, it is important that instructors not assume that such competency exists or that students are adept at using technology critically.

Rather than basing pedagogical or professional development decisions on assumptions about digital literacy skills based on age, faculty should instead focus on understanding the needs of the students in their local context by considering students' backgrounds, how those backgrounds compare to those of faculty, what tasks engage students with learning, and then how technology might contribute to that engagement (Oblinger & Oblinger, 2005).”
1981-1996
Millennials

1997-2012
Generation Z
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