

EXAMINING DIGITAL NATIVES

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DEFINING A DIGITAL NATIVE

The first intentioned and famous use of the term “Digital Native” occurred in a 2001 publication written by Marc Prensky, a consultant, writer and game designer who works with education and learning. He originally employed the term to refer to an entire generation of students who *“have changed radically”* and are *“no longer the people our education system was designed to teach”* as a result of their upbringing in a world wrapped up in information communication technologies (ICT’s) (Prensky 2001). He suggested that students today think and process information differently as compared to people of older generations. He went further to claim that the contrast was particularly evident when digital natives were compared to older adopters of technology, so-called “Digital Immigrants” who would manifest their “accent” by showing a lack of awareness of insider meanings and practices. The original article, only six pages in length, did not support itself very much with specific research or reports but instead employed observations from Prensky’s venerable experience.

The idea sparked a controversy and debate that continues today. Many critics have attacked Prensky’s notion, some evaluating the rather vague and difficult to measure binary definition, others citing participation (access and ability) gaps between potential digital natives, and still yet others implicating larger issues of the digital divide by raising questions of who precisely controls and uses technology. Bennet et al. (2008) systematically criticized Prensky’s idea of the digital native by reviewing some of the available literature and rendering it inconclusive. They also contended that the media and academic obsession over a digital native generation is instead an example of a moral panic or fear amongst educators, parents, and others who lack understanding and fear the unknown.

Despite this, the concept has found a great deal of support and exploration. The recently published MacArthur Foundation series on digital media and learning focuses on many of the aspects of the current generation of youth, in effect exploring the potential for digital natives. More directly, a recent book, [Born Digital](#) (2008), written by two professors of law, John Palfrey and Urs Gasser, investigates “Digital Natives” as a population instead of an entire generation. They add “Digital Settlers” to the mixture of terms and focus on a wide range of topics, including identity, safety, privacy, creativity, learning and more.

One of the most pressing concerns, however, is how schools, universities, libraries, and other institutions of knowledge should deal with this new population, or possible (eventual) generation. Concepts of literacy and communities of practice come in to play as well as e-learning and distributed knowledge.

BORN DIGITAL, IN BRIEF

[Born Digital](#) is a fairly expansive book and addresses many of the initial concerns voiced after Prensky’s original paper release. The writers come from a law background and currently work at two prestigious institutions, Harvard and University of St. Gallen, Switzerland. While the tone of the book is informal it provides some substantive footnotes relating to academic literature and often speaks to the reader in a prescriptive form. Some chapters have a great deal of supportive evidence, whereas others do not. This seems to root from a more

qualitative measure of what a digital native is, as depending on the mode of operationalization the available research may vary or be too broad in scope.

The authors identify digital natives as a population that does not separate the online and offline worlds—they think with, on, and through the internet.ⁱ Their conceptualizations of information, time, space, and identity seem to naturally fit the way these things work on the web. This makes sense, as they have grown up with and become accustomed to a lifestyle interlaced with ICT's. This distinguishes them from digital settlers, who are qualified as those who adopt and now (potentially) shape technologies but didn't grow up using them and still rely on traditional (analog) forms of communication. Both of these groups are set apart from digital immigrants, who are those unfamiliar and uncomfortable with the new digitally embedded environment. Like Prensky, the book identifies them as those who fail to become insiders or adopt behaviors and social norms common to modern sociotechnical systems.

Ultimately, the book suggests that digital natives have different understandings of community, relate to and access information with a variety of methods, view privacy and self-awareness in altered ways, and share more in terms of identity, creativity, and collective actions that might constitute illegal activity. Specifically, this is broken down into chapters on a few concepts:

- **Identity**, or the ways digital natives understand and perform a plurality of selves (or representations thereof), mitigating and mixing between online and offline.
- Digital **dossiers**, the numerous types, sources, and owners of information about digital natives.
- Understandings and behaviors relating to **privacy, safety, and aggressors** online.
- Some of the ways digital natives **create**, remix, and share media, ideas, and culture, and also how **piracy** challenges old-fashioned norms of copyright, production and distribution of these things.
- Questions of the **quality** of information absorbed and produced by digital natives as well as the sheer information **overload** they navigate on a daily basis.
- Digital natives as **innovators** who create and lead, provide feedback, and work as employees in new business structures.
- The challenges they face as **learners** and the potential and capacity they have as **activists**.

Finally, the book concludes with a synthesis of ideas, stressing a need to be cautious and cognizant of the dangers facing the digital native population(s) but also know how to encourage and education to create the best opportunities and outcomes. They feel a global culture is in the making and that, while the benefits will be magnificent, we must recognize that a divide has formed between those with both the skills and access to participate in this digital cultural reformation and those without either. They conclude indicating that many of the issues discussed are massive, subtle and complex and leave off on a note of hope that educators, parents and digital natives themselves can make the world a better place.

ANALYSIS

Perhaps the first consideration of digital natives is the language employed in the term itself. What is the impact of using words like native, settler, and immigrant? What kind of analogy does this create? What have the experiences of these groups been over time?

In some sense the root analogy seems flawed. Throughout history, at one point or another, every group has been a settler of some kind, no group of people has ever been eternally native to a given area. Over time, populations settle into a regularity in regards to culture and location and might eventually be referred to as natives. Settlers

are usually referenced in the frame of moving into an uninhabited area, which historically has been an insult to so-called native populations. They 'settled' on their lands because they were open for the taking (or perhaps given or deserved, according to ideologies like *Manifest Destiny*ⁱⁱ) as opposed to immigrants who migrate in to a territory that is considered to be land or property of another group. Really the major difference between settlers and immigrants was often only power disparity between the migrating and currently resident group. In the digital native realm we see another situation. Different groups adopting technologies bring with them many of their offline-world power dynamics and relationships. A rich owner of a corporation may not be particularly savvy on the web but he or she can still hire someone to make their digital presence or sue a digital native over copyright infringement. Immigrant accents imply a correct way of speaking, or perhaps more progressively slightly different ways of expressing and emphasizing words. Digital natives often have a definitive advantage in terms of digitally expressing themselves, learning new technologies and finding information, but this doesn't always outweigh other differences in play. Settlers, for the most part, are not rounding up digital natives and putting them on reservations or studying them as foreign and inferior cultures. They might employ them but not in virtual slave labor and goods aren't exactly being shipped anywhere in the space of places (the physical world), though they may go to new centers of power in the space of flows, through powerful relationships between people and information (Castells 2004).

Perhaps the terms should be considered in a similar light to the way Ron Eglash (2007) discusses the "Master-Slave" terminology issue in computers. He relates that some feel such terms can be stripped of their previous social associations and values and reconsidered to have powerful abstract meanings when used in a technical environment. Eglash cautions, however, that the history of language and group formation often reveals specific cultures and power dynamics that accrue to render inequalities hidden. Just because an engineer reads master and slave the same way they would read primary and secondary does not mean that these terms don't have subtle effects on overall perspectives or carry entirely different meanings for other groups of people. Language is a continual process of rethinking words and ideas but the usefulness and effectiveness of chosen terms tends to be at the center of the debate. If the word choice of "digital native" fails to properly conjure up additional understanding through use of an analogy or metaphor then perhaps it should be reconsidered. Maybe, instead of referring to the entire generation as digital natives (a term they have not chosen for themselves) it would be more appropriate to adopt deeper considerations of potential labels to pick more precise or effective ones. This begins with having a nuanced understanding of the digital native, which brings up the next issue, definition.

Born Digital assembled a good qualitative measure of digital natives by addressing many topics through which they might be studied. The population is so large and filled with intricacies and contingencies, however, that it becomes hard to develop a measure that might be replicated time and time again. Researchers might come up with an index based on behaviors and perspectives but what is the best way to construct a typology? Since one primary audience concerned with digital natives seems to be parents and educators, one method might be to evaluate digital natives in relation to factors that contribute to the participation gap—access and skills that allow them to be effective learners and creators in the digital age. Such a series of measures to create a typology could include very important traditional and external factors, like sociological variables, such as class, locale and ethnicity, and psychological ones, like traits, personalities, and motivations. These demographics and features could be related to and analyzed with the concepts and ideas proposed in Born Digital, such as youth perceptions and behaviors related to identity, sharing of ideas, acquisition and crafting of information, and more. This kind of study would yield considerable findings alone, as investigators could look into the causal and contingent relationships between traditional demographic-type factors and the ear marks of digital natives.

Different interest groups could then apply an additional lens to evaluate the different subgroups to form an effective and useful typology. For example, Jenkins et al. (2006) provide a forward-minded set of areas in which

digital natives might be evaluated in terms of “opportunities to participate and develop cultural competencies and social skills needed for full involvement” in the digital age. Researchers might take this one step further to conduct a study that studies potential digital natives from three perspectives: their demographics (social and psychological variables), their perspectives and behaviors in regards to the topics overviewed in Born Digital that identify digital natives (sharing of information, for instance), and the presence and efficacy of skills that relate to their participation in the digital age as outlined by Jenkins et al. (play, multitasking, etc...). Though such a study would probably be immensely complex and involve overlapping variables or multivariate analysis it could reveal important information to be employed in order to not only identify digital natives, but determine substantively (with generalizability) what makes them so, and measure what skills they possess as learners and creators in different contexts.

FUTURE RESEARCH

Findings from such a typology could have many implications. Other lenses might include political and civic engagement or potential to participate in distributed knowledge systems like new organizational or communication technologies. Policy makers might use such information to inform attempts to weave communities of practice into education or deploy new e-learning technologies or strategies. In essence taking additional steps to further understand the nuances and dynamics of the different individuals and groups who are (potentially) digital natives (or settlers or immigrants) and create a series of repeatable measures is an essential task of future and current educators.

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ⁱ Youth might “think with the internet” (collective intelligence) by looking virtually anything up on Google, they might “think on the internet” by organizing and explicating their thoughts on blogs, and they might “think through the internet” by expressing their thoughts through digitally mediated mediums, like email.

ⁱⁱ Manifest Destiny was the idea that the white man in the US had an obvious and certain right to expand and dominate the entire country. It was often infused with a religious connotation and ran similar to European colonist desires to “civilize” native “brutes” in conquered countries throughout the 1800’s.