



Open Research Online

Citation

Jones, C. and Czerniewicz, L. (2010). Describing or debunking? The net generation and digital natives. *Journal of Computer Assisted Learning*, 26(5) pp. 317–320.

URL

<https://oro.open.ac.uk/23655/>

License

None Specified

Policy

This document has been downloaded from Open Research Online, The Open University's repository of research publications. This version is being made available in accordance with Open Research Online policies available from [Open Research Online \(ORO\) Policies](#)

Versions

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding

Describing or Debunking? The Net Generation and Digital Natives

Chris Jones and Laura Czerniewicz

c.r.jones@open.ac.uk; Laura.Czerniewicz@uct.ac.za

The idea that there has been a sharp and fundamental break between young people and previous generations has become commonplace. It can be found widely in policy statements and in commercial rhetoric, it is referenced repeatedly in academic work and it persists despite a growing body of evidence that questions the foundations of the idea (Bullen et al. 2009; Czerniewicz et al 2009; Hargittai 2010; Kennedy et al. 2008; Jones et al 2010; Pedró 2009; Selwyn 2008). This special edition brings together academic commentary from three continents and includes one national context that stands outside the standard assumptions that are current in advanced industrial societies. The authors question the idea that there has been a clear and identifiable generational break, a 'singularity' to use Marc Prensky's dramatic term (Prensky 2001 p1).

There is a current and popularized discourse about a new generation of young people who have been 'bathed in bits and bytes' since birth (Palfrey & Gasser 2008, Tapscott 2009). This discourse has a wide social impact and its echoes can be found in business literature and government policy. The prima facie claim is a powerful one because many of the audience for the idea have some prior experience of young people who have grown up in an environment infused with digital technologies. These young people are not only familiar with a range of new devices but they also grew up with the Internet and the Web. The general claim, made in the Net Generation and Digital Natives discourse, is that this material context has led to young people developing a natural aptitude and high skill levels in relation to the new technologies. In contrast those older people who grew up in an analogue world are portrayed as always being behind, as being immigrants to the new world. It is suggested that these older Digital Immigrants are never likely to reach the same levels of skill and fluency that are developed naturally by those who have grown up with the new technologies and the Digital Native and Net Generation students are said to have particular learning preferences or styles (for a critique of this claim see Bennett et al. 2008). Even stronger claims are made by some authors about changes in the brain occurring as a consequence of exposure to digital technologies (Prensky 2001a).

Overall the claims made for generational change and the existence of a distinct Net Generation composed of Digital Natives appears to be a gross oversimplification and despite the prevalence of the idea of a new generation there is no consensus on a single term nor is there a commonly agreed start or end date for the new generation. The three most commonly used terms in circulation are the Net Generation (Tapscott 1998, 2009), Digital Natives (Prensky 2001; 2001a; 2009; Palfrey and Gasser 2008) and Millennials (Oblinger

& Oblinger 2005). Amongst the many other terms that have been used in a similar way are Generation Y (Weiler 2005) and, more recently in response to the current trend in technological and market developments, the i-Generation (Rosen 2010). Each term for the new generation brings with it some particular characteristic or metaphoric resonance but generally all of the terms are used interchangeably. All these terms suggest that the generational boundary is sharp and that just a few years disparity in age would make a significant difference. The age boundary between the generations varies and a range of dates have been proposed for the new generation despite the claim that the new generation is evidently distinct from previous age cohorts (e.g. Stoerger 2009). Tapscott for example begins the new generation in January 1977 and ends it with a further generational shift into Generation Next in December 1997 (Tapscott 2008 p16). Prensky is not specific about the dates that define this new generation but other authors using the same expression suggest that Digital Natives appear after 1980 (Palfrey & Gasser 2008 p1). Oblinger & Oblinger date the Millennials from those born 'in or after 1982' (Oblinger 2003 p38) and end the generational cohort in 1991 (Oblinger & Oblinger 2005 2.9). There remains a need to engage with the Net Generation and Digital Natives discourse because it continues to have an influence on policy and practice in education, despite the lack of clarity in the use of terms and in the definition of generational boundaries.

The origins of this special edition lie in a one day conference held at the Open University (UK) in Milton Keynes during May 2009. That conference brought together the authors of these papers with others working in this field to discuss the work they had been undertaking and to examine the emerging critical commentary on the idea of a Net Generation composed of Digital Natives¹. It was followed by a three day workshop which focused on the questions that arose from the research, in particular whether the generational idea was exhausted and whether the empirical research that was being reported fatally flawed the idea. Perhaps surprisingly the group concluded that there was value in further research, firstly because the discourse had a persistence and the source literature was still being referenced in serious academic work, and secondly because although the idea was flawed it did point to interesting research questions about how digital and networked technologies were being appropriated by students.

Two notable publications had begun to deal with the persistence of the generational divide within academic discourse prior to the workshop (Bennett et al. 2008; Bayne and Ross 2007). Beyond higher education there was a more developed discussion that addressed some of the underlying theoretical positions supporting a determinist discourse around technology (Buckingham and Willet

¹ The video record of the one day conference can be found at:
<http://stadium.open.ac.uk/stadia/preview.php?whichevent=1339&s=31>

2006; Herring 2008; Selwyn 2003). Technological determinism is another discourse that has persisted despite a serious academic assault on the basis for the claims that have been made. Technological determinism argues that changes in technology arise independently and that technology then has an impact on other dependant domains in society (MacKenzie and Wajcman 1999 pp 3-6). The problem that MacKenzie and Wajcman identify with technological determinism is that it focuses on the need to adapt to technology rather than on how to shape it. In the determinism that is inherent in arguments based on the Net Generation and Digital Natives, education has to adapt to technologically induced changes rather than shaping the technology related changes that are taking place in accordance with educational requirements and the needs of staff and students.

The question of student agency in the process of technology adoption became a central theme in the workshop that took place in 2009. Work had already begun on applying notions of agency found in the work of Archer (2002; 2003) to this question and during our debates issues arose about where agency lay in relation to the new technologies being deployed in education. Was agency located at the level of the individual student alone or did agency apply to the collective decisions made in university at the level of departments and whole institutions? What were the conditions within which students made choices about what they could and should do with new technologies and how did this relate to the notion of technological affordance? These initial debates are reflected in some of the discussion found here and they can also be found in related papers published by the same authors elsewhere (e.g. Czerniewicz et al. 2009, Jones 2010). If a determinist approach is abandoned then there is a need to develop more nuanced ways of understanding the kinds of identities that young people begin to develop in relation to new technologies. These new understandings will need to connect to the theories that have tried to explain, at a more general level, the kinds of relationships that can help in making sense of education mediation through digital and networked technologies. Some of the candidate theories are addressed in the following papers and, for example, Bennett and Maton discuss the idea of networked individualism and Bourdieu's interrelated notions of field, capital and habitus. Bourdieu's theoretical constructs are also used to interpret findings by Czerniewicz and Brown (2010). In the articles in this edition Jones and Healing discuss the place of agency and the relevance of activity theory and actor network theory to this debate. Kennedy et al. provide empirically based descriptions of students in the generational age group which suggests that the Digital Native characteristics can be found, but only amongst a minority of students. Czerniewicz and Brown provide further empirical evidence from a context in the developing economy of South Africa in which digital networks have yet to become commonplace in education. Even within the South African context Czerniewicz and Brown find a similar 'elite' group of students to the minority identified by Kennedy et al. and they react against the determinist and exclusionary rhetoric that has characterised the debate so far.

Our final comment would be that these papers should not be read as a denial that changes are taking place amongst young people, indeed we would suggest that our work should be read as a plea for further research to clarify the nature of the changes that are taking place and to dispel the false dichotomies the Net Generation and Digital Native arguments have led to.

References

- Archer, M. 2002. Realism and the problem of agency. *Journal of Critical Realism* 5, no. 1, pp11-20.
- Archer, M. 2003. *Structure, agency and the internal conversation*. Cambridge, UK: Cambridge University Press.
- Bayne, S., and Ross, J. (2007). The 'digital native' and 'digital immigrant': a dangerous opposition. Paper presented at the Annual Conference of the Society for Research into Higher Education, Brighton 11-13th December 2007.
- Bennett, S., Maton, K., and Kervin, L. (2008). The 'digital natives' debate: A critical review of the evidence. *British Journal of Educational Technology*, 39(5), 775-786.
- Buckingham, D. & Willett, R. (eds.) (2006). *Digital Generations: Children, Young People and New Media*. Mahwah, NJ: Erlbaum.
- Bullen, M., Morgan, T., Belfer, K., and Qayyum, A. (2009). The Net Generation in Higher Education: Rhetoric and Reality. *International Journal of Excellence in E-Learning*, 2(1), 1-13.
- Czerniewicz, L. & Brown, C. (2010). Born into the Digital Age in the south of Africa: the reconfiguration of the "digital citizen. In Dirckinck-Holmfeld L, Hodgson V, Jones C, McConnell D & Ryberg T. (Eds) *Proceedings of the 7th International Conference on Networked Learning*, Aalborg 3-4th May 2010 pp 859-865.
- Czerniewicz, L., Williams, K., and Brown, C. (2009). Students make a plan: understanding student agency in constraining conditions. *ALT-J*, 17(2), pp75 - 88
- Hargittai, E. (2010). Digital Na(t)ives? Variation in Internet Skills and Uses among Members of the "Net Generation". *Sociological Inquiry*, Vol. 80, No. 1, pp 92–113.
- Herring, S. (2008) 'Questioning The Generational Divide: Technological Exoticism and Adult Construction of Online Youth Identity' in Buckingham, D. (ed.) *Youth, Identity and Digital Media*, (pp 71-92). Cambridge MA: MIT Press
- Jones, C. (2010) *Networked Learning, the Net Generation and Digital Natives* (Symposium of six papers). In Dirckinck-Holmfeld L, Hodgson V, Jones C, McConnell D & Ryberg T. (Eds) *Proceedings of the 7th International Conference on Networked Learning*, Aalborg 3-4th May 2010.
- Retrieved 20th July from:
<http://www.lancs.ac.uk/fss/organisations/netlc/past/nlc2010/abstracts/Jones.html>

- Jones, C., Ramanau, R., Cross, S.J., and Healing, G. (2010) Net generation or digital natives: Is there a distinct new generation entering university? *Computers & Education*. Vol 54 (3), pp722-732.
- Kennedy, G. E., Krause, K.-L., Judd, T. S., Churchward, A., and Gray, K. (2008). First year students' experiences with technology: Are they really digital natives? *Australasian Journal of Educational Technology*, 24(1), 108-122
- MacKenzie, D., and Wajcman, J. (Eds) (1999) *The Social Shaping of Technology* (2nd Edition). Buckingham: Open University Press.
- Oblinger, D. (2003). Boomers, Gen-Xers and Millennials: Understanding the "New Students". *EDUCAUSE Review Magazine*, Volume 38, Number 4, July/August 2003
- Oblinger, D.G. and Oblinger, J.L. (2005), *Educating the net generation*. An Educause e-book publication. Retrieved 20th May 2009 from:
<http://www.educause.edu/ir/library/pdf/pub7101.pdf>
- Palfrey, J. and Gasser, U. (2008) *Born Digital: Understanding the First Generation of Digital Natives*. New York: Basic Books.
- Pedró, F. (2009). *New Millennium Learners in Higher Education: Evidence and Policy Implications*. Paris: Centre for Educational Research and Innovation (CERI).
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*. NCB University Press, Vol 9(5).
- Prensky, M (2001a). Digital Natives, Digital Immigrants Part II: Do they really think differently? *On the Horizon*. NCB University Press, Vol 9 (6).
- Prensky, M. (2009). H. sapiens digital: From digital immigrants and digital natives to digital wisdom. *Innovate* 5 (3). Retrieved 1st February 2009 from:
<http://www.innovateonline.info/index.php?view=article&id=705>
- Rosen, L. D. (2010). *Rewired: Understanding the i-Generation and the way they learn*. New York: Palgrave Macmillan.
- Selwyn, N. (2003) 'Doing IT for the kids': Re-examining children, computers and the 'Information Society'. *Media, Culture and Society*. 25(3): 351-378.
- Selwyn, N. (2008). An investigation of differences in undergraduates' academic use of the internet. *Active Learning in Higher Education*, 9(1), 11-22.
- Stoerger, S. (2009) The Digital Melting Pot Bridging the Digital Native-Immigrant Divide. *First Monday*, Volume 14, Number 7. Retrieved from:
<http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2474/2243>
- Tapscott, D. (2009). *Grown up digital: How the Net generation is changing your world*. New York: McGraw-Hill.
- Tapscott, D. (1998). *Growing up digital: the rise of the Net generation*. New York: McGraw-Hill.
- Weiler, A. (2005) Information-Seeking Behavior in Generation-Y students: Motivation, Critical Thinking and Learning Theory. *The Journal of Academic Librarianship*, Volume 31, Number 1, pp 46–53