

Book Review

Digital Diversity: Youth, Equity and Information Technology.

Looker, E. D., & Naylor, T. D. (Eds.)
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Digital Diversity: Youth, Equity and Information Technology is an edited volume by sociologists E. Dianne Looker from Mount Saint Vincent University and Ted D. Naylor from Dalhousie University. The book reports on the findings of a research project conducted as a part of an Equity and Technology Research Alliance grant from the Social Sciences and Humanities Research Council of Canada's Initiative on the New Economy. The editors collaborated on the writing of most of the book's seven chapters, with contributions from five others. Although educators were not involved in the writing of the book, it is nonetheless an important source of information for all Canadian teachers, especially those teaching at the secondary and postsecondary levels. As stated in the first sentence, "This book is about youth." It reflects the current trends and attitudes of youth regarding information and communication technology (ICT). As educators, we need to be aware of these trends regarding our students' use of ICT tools and listen to the concerns about and barriers to that use from their perspectives.

Background

The statistics reported in this book came from a research study that was undertaken over the 2004-2005 school year. Data collection was focused on two regions of Canada: Nova Scotia and Nunavut. These two areas were chosen because of the potential they offered for examining the issue of equity and marginalized youth, including Mi'kmaq First Nations youth living on reserves, African-Canadians, street youth, and youth from the far North. The North was of particular interest to the authors as they identified it as a segment of the population that is not usually reflected in the data collected by Statistics Canada. Surveys were administered to secondary school students and teachers in 10 Nova Scotia schools and 13 Nunavut schools. Twenty-two teachers, administrators, and technical coordinators in schools were interviewed. Student teachers in three faculties of education in Nova Scotia were also surveyed, and interviews and focus groups were held with teacher educators in those institutions.

ICTs and Youth

The main focus of *Digital Diversity* is an examination of how young people in Canada are currently accessing and using ICT tools and where they acquire the skills to use them effectively. The authors chose to narrow the study to include only computers and the Internet. Although there have been numerous studies of ICT and learning in schools over the past 20 years, the

unique twist that this book offers is an examination of ICT use through the lens of social capital, which the authors define as “the network of social ties that a person or group can call upon for resources and support” (p. 4). Framing the book using this concept reflects the writers’ interest

in the ways it [ICT] is used to enhance the capital resources available to youth by providing them access to information (thereby potentially improving their human capital) and by allowing them to communicate effectively over a widely dispersed area with their social network (thereby maintaining and enhancing their social capital). (p. 7)

It is argued that increased social capital is critical for success in our global, information-based economy.

One issue raised about youth and the use of ICT in the book of which we have been aware since digital technologies were first introduced in schools is equity of access. Although federal and provincial government policy has been attempting for some time to equalize the playing field as far as access to technology is concerned, the education research literature clearly identifies access to ICT tools as a significant and continued barrier to its effective use as a learning tool. The authors concur: “There is still a deep digital divide, even in terms of physical access to the technology in Canada” (p. 47) both in schools and in homes. Although the data for this book were collected in 2005, five years later, significant issues in high-speed Internet access persist. A recent article in the *Edmonton Journal* (Finlayson, July 17, 2010) entitled “Rural Alberta Falling Through SuperNet” claims that “many rural Albertans still have poor or no broadband service” (para. 1). In *Digital Diversity*, this issue is examined from the perspectives of marginalized youth, geographical location, cultural identity, and gender differences.

Chapters 2, 3, and 4 address the issue of inequity in access to and use of computers and the Internet in Canadian homes and classrooms, particularly in northern Canada. In Chapter 2, the effect of geographic location on access to and use of ICT tools includes a discussion of home and school access in both rural and urban areas and in northern and southern Canada. However, the book takes the issue one step further to examine not only access, but *how* and *where* youth are developing the skills to use ICT tools and for what purposes they are using them.

Chapter 3 examines the relationship between computer and Internet use and the cultural identities of youth. The authors acknowledge that although the Internet is generally seen as a source of social capital to develop “webs of connection” with other people, it is not so for all youth depending on their “cultural location” (p. 61). They identify a level of resistance among some minority cultural groups to the use of the Internet, primarily because the language of the Internet is English, but also because of the belief that it may lead to “destruction of traditional cultures” (p. 61). Consequently, the authors claim that some youth face the dilemma of having “to choose between actively joining the so-called ‘information society’ or maintaining their culture and traditions by insulating themselves from this technology” (p. 82).

Chapter 4 looks at the issue of gender and technology. The issues of equal access for people of both sexes to the technology and their level of skill in using ICT tools, which dominated the educational research on computer use for years, no longer are of primary concern according to the authors. Where the main difference lies now between the sexes is in how the ICT tools are being used. Males tend to be game-players, whereas females tend to make more use of the Internet for interpersonal communication and social bonding. When this occurs during school, it is to the detriment of their schoolwork. “At some level the digital divide becomes the difference between those who know how to selectively control and contextualize computer

technologies and those who are simply amazed, entertained and consumed by technology as a distraction” (p. 112).

The final chapter on youth and ICT use (Chapter 7) provides an interesting glimpse into the important role that information technologies play in the lives of street youth.

ICTs and Teachers

A second issue that the authors of *Digital Diversity* investigate is how digital tools are being used “within the domain of education, and how student teachers and current teachers are using technology for educational purposes” (p. 2). Chapter 5 examines the extent to which education faculty and student teachers are prepared to use ICT in the classroom. The authors found both a lack of consistency across three teacher education programs in Nova Scotia, both in terms of access to ICT tools and in how technological knowledge and skills were being addressed in the programs. Overall, they found a lack of effective integration of technology.

Faculties of education have done a poor job of identifying a common or core base of ICT competency for both themselves and by extension, their students. Although there is an assumption of high ICT literacy for student teachers entering education programs, it is not taught systematically at either the high school level or within faculty programs themselves. (p. 134)

Although the sample size in this study was limited, similar findings have been identified in research completed in other Canadian teacher education institutions (Gibson, Moline, & Dyck, 2011). It seems that it is being assumed that this generation of new teachers is more technologically savvy; however, as the authors note, “Simply because students today *appear* to be exposed to new technologies does not necessarily denote literacy with ICTs” (p. 135). A 2010 study of teachers’ use of technology in the classroom surveyed more than 1,000 teachers and administrators and found that newer teachers were not necessarily using technology more often than experienced teachers and that most felt that their preservice program had not sufficiently prepared them for using technology (Gruwald Associates, 2010).

The question of classroom teachers’ use of ICT tools addressed in Chapter 6 has been at the forefront of educational research for two decades. In the mid-1990s, provincial ministries of education began initiatives for Internet use, including funding Internet connectivity for schools, developing curriculum for technology use in schools, and offering professional development programs for teachers (Gibson & Oberg, 2004). I was first introduced to this issue in 1996 when my co-investigator Dianne Oberg and I initially studied Internet use in Alberta’s schools and then in school districts across Canada. At the beginning of our study, the use of the Internet as an educational tool was relatively new. The main issues with its use, as identified by the teachers in our study, were lack of access, lack of technical assistance and support, and lack of knowledge about and comfort with the Internet as a teaching tool. When I was reading Chapter 6, I found it both interesting and disturbing to see how little has really changed since then. The authors found that computers and the Internet were generally not being used to transform educational practice, but rather were used more routinely due to teachers’ lack of skill and confidence. They assert, “We need to move beyond the assumption that the presence of ICT and /or teachers’ familiarity with it will somehow magically transform either the curriculum or pedagogical techniques” (p. 157). They also point to the constraints under which teachers are working due to provincially mandated ICT outcomes that they are required to address. The authors recommend,

“ICT integration needs to be more loosely conceptualized as a range of classroom strategies that potentially improve the educational experiences, as opposed to existing along a set of ever-spiraling competencies of ICT expertise” (p. 156).

Concluding Remarks

What makes effective use of technology to support teaching and enhance learning has been on the minds of educators for two decades. Every investigation into how and why tools such as the Internet are being used by our youth and by our teachers helps to give us further food for thought. Although the data in *Digital Diversity: Youth, Equity and Information Technology* is already five years old, the book still adds some unique and important information to that discussion. I highly recommend this book to all educators as we strive to unravel the mysteries that surround the effective use of ICT in schools.

References

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