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Volume 22

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Early childhood education in many countries has been built upon a strong tradition of a materially rich and active play-based pedagogy and environment. Yet what has become visible within the profession, is, essentially a Western view of childhood, preschool education and school education.

It is timely that a series of books be published which present a broader view of early childhood education. This series seeks to provide an international perspective on early childhood education. In particular, the books published in this series will:

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- Examine the theoretical informants driving pedagogy and practice, and seek to find alternative perspectives from those that dominate many Western heritage countries
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- Examine concept formation from within the context of country-specific pedagogy and learning outcomes

The series covers theoretical works, evidence-based pedagogical research, and international research studies. The series also covers a broad range of countries, including majority poor countries. Classical areas of interest, such as play, the images of childhood, and family studies, will also be examined. However, the focus is critical and international (not Western-centric).

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Digital Childhoods

Technologies and Children's Everyday Lives

Springer

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Foreword

Digital technology is not an issue that springs immediately to mind when one thinks about early childhood. Understandably, the first 8 years are a stage of life that largely escapes the hype and mania that tends to accompany 'new' technology. Yet digital technologies and digital systems are now a significant part of the lives of young children and those who live/work with them. Therefore, this is a topic that is growing in importance for anyone seeking to make sense of contemporary childhood.

Even before they have ever swiped a screen or prodded a keyboard, most infants (in industrialised countries) are already living profoundly digital lives. This is an era when ultrasound scans are routinely shared on social media by expectant parents. Similarly, various data profiles and online accounts will have been set up well in advance of a baby's birth. Thus, the cliché of millennial children being 'born digital' might perhaps be updated to 'preborn digital' (Leaver 2015).

Thereafter, young children's dealings with significant others – from close family members to health, education and welfare authorities – are increasingly mediated through digital technologies. At the same time, a variety of digital products and applications are on offer to support play, learning and other developmental processes. For all these reasons, it is important to pay close attention to the part that the digital now plays in childhood.

Yet this is not as straightforward as it might appear. So before readers progress through the chapters of this book, here are a few opening observations that might be of use. First is the need to remain mindful of the inherently social nature of digital technology. Digital technology is *not* an autonomous force that leads to changes beyond our control or comprehension. Instead, it is helpful to conceptualise digital technologies as being *socially shaped***.** From this perspective, the nature and form of any device or application is subject to continual interactions and 'negotiations' with the social, economic, political and cultural contexts that it is embedded within.

Approaching digital technology in sociotechnical terms, therefore, allows us to question the many factors that influence the design, development, production, implementation and 'end use' of technology. It also prompts us to look beyond simplistic descriptions of digital technology somehow having inherent 'effects' or 'impacts'. Put bluntly, one can only make full sense of digital childhood by paying attention to the social arrangements and organisational forms in which technology use is situated.

This latter point highlights the importance of *context* in any discussion of digital technology. As will be evident throughout this book, there are no 'one size fits all' explanations of what technology 'is' or what technology 'does'. Instead, the specific activities and practices that children undertake with digital technologies are embedded within a variety of different contexts. These can include institutions (e.g. households, families and pre-school classrooms), social structures (e.g. intersections between race, gender and social class) and cultures (e.g. neighbourhood and national cultures). As such, there is much more to young children's engagements with digital technology than the device or application being used.

Indeed, early childhood constitutes a very specific context within which digital technology use takes place. Infants and young children are distinctive technology 'users' in a number of ways – from their limited physical capabilities to nascent emotional and cognitive development. Moreover, it is important to remember that young children are subject to very distinctive institutional conditions. For example, young families and pre-school households are markedly different domestic settings to those experienced by older children and young people. Similarly, child-care crèches and early years' classrooms are very different educational settings in comparison to primary or secondary classrooms. At the same time, the legal conditions surrounding young children also have specific implications for how digital technologies are used.

For all these reasons, then, exploring digital technology and early childhood is highly complex but also highly rewarding. On one hand, this is something that researchers working in the area of early childhood can approach with a degree of confidence. For example, it could be argued that researchers working in this area have been well ahead of the curve in addressing key aspects of recent technological innovation. Studies of young children have long made sense of interactions *with* digital technologies that are not primarily keyboard- and text-based, but instead based around touch, gesture and visual content. These now dominant ways of interacting with smartphones and tablets across the life course are well familiar to early childhood researchers.

Moreover, early childhood research has a rich history of exploring issues of interaction *around* devices. Rather than engaging with digital technologies as solitary 'individual users', young children often cooperate and collaborate with others.

Most recently, early childhood has also been one of the first areas where the much-anticipated 'Internet of Things' has actually come to fruition. Internet-enabled 'smart' toys are now a burgeoning market for brands ranging from Barbie to LEGO. This has meant that early childhood researchers are now leading the way in investigating the millions of devices that now constitute the worldwide 'Internet of Toys' (Holloway and Green 2016).

In all these, early childhood might justifiably consider itself an area in which cutting-edge technology-related research is taking place. On the other hand, however, it is wise not to become *too* complacent. Much early childhood research and writing remains woefully underdeveloped in its methodological and theoretical treatment of the digital. For example, there is a pressing need for more sophisticated empirical approaches in making sense of digital childhood. Clearly, many of the issues already highlighted cannot be understood by studies reliant wholly on non-participant observations and/or interviewing. Instead, new methods are required to properly interrogate the code, data and programmed architecture of the digital aspects of contemporary childhood. This means engaging with the computational social sciences, as well as exploring emerging fields such as digital ethnography and other forms of digital social research (see Marres 2017).

In addition to this is a need to broaden the scope of discourse and debate regarding digital childhood. While not in thrall to digital devices and gadgets, early childhood commentators often appear preoccupied with issues relating to 'the child' and their immediate environs. Instead, some of the most pressing questions that need to be asked of digital technology are macro-level issues of political economy, societal ethics and environmental sustainability. Thus, discussions of digital childhood need to be cognisant (and critical) of the billion-dollar industries that operate in this space, as well as the effect that digital products and practices are having on societal values and ecological systems. These issues and consequences certainly need to be foregrounded in our discussions of digital childhood.

A final challenge is the need to look ahead to upcoming technological developments and innovation. What are the issues that will present themselves in a decade's time when people will struggle to remember back to what an 'iPad' or 'Minecraft' was? What are the issues likely to arise from the emergence of post-digital technologies in society – for example, biotechnology, cognitive technologies and various forms of pharmaceutical technology? This is an area of inquiry that will never stand still.

So, while *Digital Childhoods* marks a great start in addressing some of these issues, this is clearly no time to be complacent. There is much work remaining to be

done in this area. Rather than constituting the final word, this book needs to be seen as the start of a number of long-running (and perhaps difficult) conversations. These are issues and ideas that need to be discussed and developed in early childhood research for many years to come.

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Neil Selwyn

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