Chapter 11
Multiple Literacies in the ICT Age:
Implications for Teachers and Teacher Educators, an Australian Perspective

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ABSTRACT

The exponentially changing world of the Information Age is reflected in the emphasis on multiple literacies and the impact of information communication technology (ICT) in teaching and learning practices in global educational environments. Students' learning, teachers' curricula and teacher education programmes are being adapted to these changing circumstances. The concept of multiple literacies has had a powerful influence on classroom practice. Multimodal and multidimensional curricula have become the standard for students from a very young age to lifelong learners. While discipline-specific literacies such as scientific literacy are widely acknowledged as essential components of a multiple literacies concept, notions of 'information literacy' have taken centre stage in discussions of students' ability to access, retrieve and critically evaluate the information that floods the ICT driven delivery modes of the 21st century. However, it is important to remember that learning is a complex process, and that "Who is looking after our children?" is still an essential question to ask.

INTRODUCTION

Students in the 21st century live in an amazing world dominated by Information Computer Technologies (ICT). However, their education is still driven by a 20th-century, outcome-based philosophy of curriculum design, in which the measure of academic capital is successful achievement of outcomes specified in an educational course or curriculum. In this new world of learning, ICT is perceived to be a way of overcoming issues of equity and achieving success for all. Online learning communities are seen as a major policy focus for many education systems. In Australia, as in other countries, a variety of policies emerged early in the twenty-first century to support and enhance educational opportunities in relation to ICT-based education, as for example: *Maintaining the edge: Strategy overview 2000–04, Backing*

Australia's ability action plan and *Bridging the digital divide.* These policy initiatives were designed to achieve equity of access to information and communication technologies for all students, regardless of socio-economic status or geographic location. In November 2007 a Commonwealth Labor Party Government came to power in Australia. This new government announced its 'Digital Education Revolution', a programmes aimed at the delivery of "a world-class education system for Australia" (DEEWR., 2009, Overview section) and nothing less than a transformation of "teaching and learning in Australian schools that will prepare students for further education, training and to live and work in a digital world." Accordingly, the Australian Government promised $2 billion to provide for:

- the <u>National Secondary School Computer Fund</u>, providing grants of up to $1 million for schools to assist them to provide for new or upgraded information and communications technology (ICT) for secondary students in years 9–12
- the Fibre Connections to Schools initiative, a contribution of up to $100 million to support the development of fibre-to-the-premises (FTTP) <u>broadband connections to Australian schools</u>
- collaboration with states and territories and Deans of Education to ensure new and continuing <u>teachers have access to training in the use of ICT</u> that enables them to enrich student learning
- $32.6 million over two years to supply students and teachers with online curriculum tools and resources to support the national curriculum and conferencing facilities for specialist subjects such as languages
- the development of online learning and access that will enable parents to participate in their child's education
- $10 million over three years to develop support mechanisms to provide vital assistance

for schools in the deployment of ICT provided through the National Secondary School Computer Fund. (DEEWR., 2009, p.13)

These points are but a few examples of government initiatives occurring in Australia and indeed, initiatives are occurring globally. They serve to demonstrate the importance that governments place on the development of educational systems and infrastructure geared towards new generations of ICT users. Naturally, the government's emphasis on ICT and learning is reflected in school classrooms, with curriculum being adapted and created to incorporate the new technologies available. This in turn has changed teacher education institutions programmes which prepare pre-service teachers for the world of schooling.

The "digital revolution" has changed the nature of literacy and impacted not only on the learning capabilities of students, but also, on teaching practices for the global education community. Teachers and teacher educators have had to come to terms with new generations of learners, and this has involved a revised notion of what it means to be literate. The emergent phenomenon multiple literacies involves changing notions of skills, practices, knowledge, and ways of socially and culturally communicating on a global basis (Anstey & Bull, 2006). New understandings have moved into the old space of literacy evolving into the concept of multiple literacies commonly used in the 21st century. The multiple literacies concept not only refers to reading and writing but also accommodates multiple modes of communication, such as the ability to be visually literate in terms of graphics and the many forms of multimedia communication. The concept of multiple literacies embraces other forms of literacy such as scientific literacy (Thomson & De Bortoli, 2008) and information literacy (Hancock, 1999; Lankshear, Snyder, & Green, 2000; Snyder, 1997). The dimensions of literacy have expanded considerably and are being incorporated into the

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