

ICT SKILLS DEVELOPMENT: ISSUES FOR THE ACCOUNTING PROFESSION¹

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Technological changes across the financial reporting supply chain impact the information and communications (ICT) skills needed by professional accountants to perform their roles. ICT's disruptive potential and the increasing pace of change, including intelligent systems, data mining, and predictive analysis, to exploit big data will transform both the operational and interpretative aspects of accountants' roles. This article focuses on some of the challenges, including cybersecurity, outdated accounting systems, the changing role of the professional, and job mobility, arising from technological changes.

Cybersecurity

With all of the recent technological advances, the business world is now more at risk than ever to cyber threats. Technology and automation's rise is a double-edged sword that has led to more cyber risks (Bullock 2017). The underlying business environment that the business operates in needs to be safe. Businesses must ensure that their systems and client data are secure from cyber-attacks. Data security is one of the most common concerns for businesses transitioning to technological advances such as cloud computing. The potential loss of data could be especially disastrous for an accounting firm if the data relates to confidential information (Gibbs 2014). The accounting profession needs to play an important role in IT governance to safeguard data and ensure that the system is delivered in line with company values (Pan and Seow 2016).

Outdated Accounting Systems

Many accountants still use traditional systems developed 20–30 years ago that are costly and inefficient (Braine 2016). They are reluctant to change practices, which puts them at risk of losing clients to competitors that have adopted recent technological developments (Braine 2016). Embracing technological developments is crucial to a business's success (Colquhoun 2015). Businesses, including accounting practices, should apply a "digital lens" to all parts of their business: running events, managing emails, monitoring social media, and in-house management systems, including bookkeeping, invoicing, and cash processing (Colquhoun 2015). Streamlining customer processes—such as tax returns, invoice payments, and everyday transaction management—through technology will enable firms to focus on higher value-add activities for clients and customers (Riddell 2016).

¹ This article is an edited extract from the International Accounting Education Standards Board (IAESB) literature review on ICT skills development. The [full literature review](#) covers the digital age and opportunities for accountants, issues for the accounting profession, education and ICT development, and developing countries and ICT skills. The literature review is part of the IAESB's examination of megatrends to help inform the direction of accounting education in the digital era consultation process (see [IAESB strategy and work plan for additional details](#)).

Accountants Changing Role and Job Mobility

While the advent of technology creates exciting opportunities for accountants, accounting also tops many lists for professions most at risk from technological advances. A PwC survey rated the risk of accounting being automated within the next 20 years at 97.5% probability (Masterman 2015). With most of the routine bookkeeping being done automatically, this will lead to significant job losses.

Accountants' roles in the digital age will also change radically as technological adoption increases. Combined with the growing importance of behavioral skills, such as exercising professional judgment and demonstrating emotional intelligence, this will create new challenges for the entire accounting profession. The services that accountants provide will need to broaden to include forensic accounting, Big Data analysis, assisting clients with cloud computing, and business advice and consulting. Rather than becoming expendable, a good accountant's expertise will be even more valuable to their clients in this time of rapid change (Riddell 2016).

Another important issue facing accountants in the digital age is that of mobility. Accountants will become increasingly mobile as modern digital communication means that the virtual office is now a reality (Riddell 2016).

Susskind and Susskind (2015) predict that "there will be very few jobs for life, much less security, and very little predictability." They contend that the emphasis will be on being able to learn, develop, and adapt rapidly to new roles and tasks driven by technological advances. To remain relevant and valued for specialist knowledge, it is imperative that professional accountants tackle the issues and embrace learning and developing new skills commensurate with the evolving technologically driven business world (for more from Daniel Susskind, [see the Global Knowledge Gateway interview](#)).

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This document was prepared by the Staff of the International Accounting Education Standards Board (IAESB).

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