

## ICT SKILLS DEVELOPMENT: ISSUES FOR THE ACCOUNTING PROFESSION<sup>1</sup>

By Jacqueline Birt, Paul Wells, Marie Kavanagh, Alistair Robb, and Poonam Bir

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 This article focuses on some of the challenges, including cybersecurity, outdated accounting systems, the changing role of the professional, and job mobility, arising from technological changes.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### Outdated Accounting Systems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).

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<sup>1</sup> 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](#)).

## **Authors**

Jacqueline Birt, PhD, CPA, is an Associate Professor in Accounting at the University of Queensland. Jacqueline is a member of the IAESB CAG and also President-Elect of AFAANZ (Accounting and Finance Association Australia and New Zealand) where she holds the portfolio of Education. Her research interests are predominantly in international accounting and accounting education. She is a Deputy Editor of the Accounting & Finance Journal and an Associate Editor at the Accounting Research Journal. Jacqueline has been the recipient of several research and teaching awards.

Paul Wells, PhD, CA, is a Senior Research Lecturer in Accounting at Auckland University of Technology where he teaches Accounting Information Systems. He is an associate editor for Accounting Education and on the editorial board for the Journal of Accounting Education. Paul's research interests primarily involve accounting education and perceptions of the profession, while his professional interests are in accounting curriculum design and development and the use of technology in professional accounting education and practice.

Marie Kavanagh, PhD, is Professor in Accounting at the University of Southern Queensland. She has extensive experience in teaching and learning including program development and delivery at both post

graduate and undergraduate level. Throughout her career she has been involved in program review and curriculum development, teaching and learning policy and procedure development and encouraged participation in teaching excellence and ALTC citation awards. She has published in these areas in both national and international journals. She is also Northern Australia convenor for Enactus Australia facilitates students undertaking and delivering entrepreneurial projects in community. She has won various teaching awards at a university and national level.

Alistair Robb, PhD, is a Senior Lecturer in Information Systems at the University of Queensland. Alastair's ongoing research interests are in the areas of data integrity, deceptive behavior in computer-mediated communications, Information Systems governance, eXtensible Business Reporting Language (XBRL), and Distributed Ledger Technology (DLT). More recently, Alastair's research in DLT has focused on the types of transactions that best suit Blockchains, as well as the types of fraud Blockchain can best prevent. Further, his research into Blockchain considers the implications of the technology for the accounting, auditing, and legal professions.

Poonam Bir, PhD, has extensive academic and industry experience, of which twenty years have been as a full-time lecturer at Monash University. She currently teaches at the University of Melbourne and Victoria University. Her experience includes teaching and developing accounting and auditing subjects at both post graduate and undergraduate levels. She incorporates the use of computers and audit softwares in teaching and assessing Auditing, at both post graduate and undergraduate levels. Her research interests include comparability of financial reports, corporate governance, financial reporting issues, International harmonization, convergence and adoption of accounting standards, leases and eXtensible Business Reporting Language (XBRL).

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**International Accounting  
Education  
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529 Fifth Avenue, 6th Floor, New York, NY 10017  
T + 1 (212) 286-9344 F +1 (212) 286-9570  
[www.iaesb.org](http://www.iaesb.org)