

How is **TECH** changing the role of the accountant?

A new era of automation is under way and looks set to drastically change the traditional role of the accountant. Will innovation pose a threat or provide an opportunity to the profession? Jessica Fino finds out

Like many sectors, the accountancy profession is evolving thanks to the amount of tech changes seen in the last few years. From the rise of big data and data analytics, to the internet of things and blockchain, the profession is expected to embrace a new era of digitalisation that will change the way traditional accounting has been done, from record-keeping to reporting requirements.

According to the World Economic Forum (WEF), as many as 7.1 million jobs could be lost over the next five years due to the “fourth industrial revolution”, with the largest amount of skills disruption expected to occur in the financial services and investors industry.

With that said, a recent report from PwC stated that artificial intelligence (AI) will be the “biggest commercial opportunity in today’s changing economy”, with retail, financial services and healthcare expected to see the biggest gain. So what does that mean to the future of the profession?

NEW SERVICES

ICAEW’s report published in June this year, *Artificial Intelligence and the*

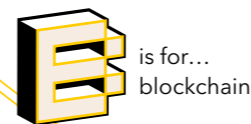
Future of Accountancy, warned that the accountancy profession must be “agile and flexible” enough to harness the technology’s potential.

Kirstin Gillon, technical manager at ICAEW’s IT Faculty and author of the report, says that, while accountants have used technology for decades to enhance the value they can deliver, the pace of change and the power of AI mean a “paradigm shift” is coming.

“Machines can already take over a lot of process and compliance work, for example, and they will start to offer insights, analysis and new services like fraud detection,” Gillon explains. “This is good news for finance professionals, who will be able to focus on more valuable tasks like decision-making, problem solving, strategy development, and leadership.”

However, the report says humans cannot be replaced by machines, as machine learning, while powerful, cannot yet replicate human intelligence and has significant limitations.

“Humans make decisions in two main ways - using intuition and reason - and both are important. Historically,



BY THE LETTER

ICAEW insights into the influence of tech

IT increasingly informs all aspects of the profession and ICAEW is keen to develop helpful insights into the main developments that will have the greatest impact on the lives of its members and students in the years ahead. By working with the IT Faculty and through ongoing conversations with members and others across the profession, as well as notable IT experts, ICAEW has identified the A- E of digital developments...



Recently, the ICAEW released *Artificial intelligence and the future of the profession*, which looks at the first letter in the list, automation, and the role it might play in the future. tinyurl.com/Vital-AIFuture



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“The role of the accountant will shift and will become more high-valued, in a higher chain and moving into new areas and possibilities.”

Gillon argued that the real value of accountants is interpreting and telling a story around data, and freeing the profession from tasks such as reconciliations to focus on these questions is therefore a positive step.

The tech innovation will also bring new roles to the profession in the future. *The Future of Jobs* report, published last year by the WEF, predicted that many of the major drivers of transformation currently affecting global industries are expected to have a significant impact on jobs.

In many industries, and countries, the most in-demand occupations or specialities did not exist 10 or even five years ago, and the pace of change is set to accelerate. For example, 65% of children entering primary school today will ultimately end up working in completely new job types that don't yet exist.



attempt to mitigate the risk of possible cyber security breaches.

As a result, salaries in this area reflect the high demand, with junior auditors earning up to £36,000.

“Demand is also high for candidates with a demonstrable knowledge of data, information security and general controls,” says Karen Young, director of Hays Accountancy & Finance.

PwC, for example, announced last year it will add 1,000 technology specialists to its UK risk assurance practice by 2020 as well as 1,000 data scientists to its deals business.

The firm said the major recruitment drive was a response to increasing client demand for digital, regulatory and cyber security services.

“Business models that have served clients well for decades are being disrupted or destroyed due to the speed of digital disruption, the increase of regulatory scrutiny on technology risks, and the escalation of cyber threat, requiring us to respond and build a strong team of specialists,” says Hemione Hudson, PwC's UK head of assurance.

The firm also announced this year it would be creating 80 places per year on its innovative new technology degree apprenticeship programme. The programme, a partnership with the University of Birmingham and the University of Leeds, will receive its first student intake in September 2018.

REDUCE REPETITION

Another Big Four firm, EY, has said that apps and robots could take on as much as 30% of its tasks. However, EY explained that it would not be a case of replacing employees but of streamlining the workload, reducing the number of repetitive tasks.

“A lot of graduates are in the office until midnight adding information into spread sheets. That knowledge is now in machines, so we can free graduates to do more entrepreneurial projects,”

TECH AND THE INSTITUTE

ICAEW continues to recognise the increasing importance of technology in the profession and has integrated relevant aspects of it across the ACA

syllabus, learning materials and professional development. Initially, you will see more content on data analytics, cyber risks and security, and cloud computing, although this will expand over time to include other relevant areas. To reflect the integration of technology content across the ACA modules and exams, from January 2018, two ACA modules are also changing names.

- Business and Finance will change to Business, Technology and Finance; and
- Business Strategy will change to Business Strategy and Technology.

The professional development requirement of the ACA has also been refreshed, see pages 14-16. This update also highlights skills required by students in a technological world, and you will see some of the skills referring to specific technologies.

And finally, ICAEW is introducing computer-based exams at the Professional and Advanced Level exams. Reflecting the everyday work environment of ACA students. Exams started to move to computer in March 2017.

Harry Gaskell, EY's chief innovation officer told *The Times*.

PwC has also warned that around 30% of existing UK jobs are susceptible to automation from robotics and AI, but John Hawksworth, chief economist at the firm, said that automating more manual and repetitive tasks will eliminate some existing jobs, “but could also enable some workers to focus on higher value, more rewarding and creative work, removing the monotony from our day jobs”.

Lee Reams, CEO of ClientWhys and TaxBuzz.com, has argued that the future of cloud accounting will not put accountants out of their jobs, but instead give them an opportunity to help their business clients, by freeing up time to work with them in a more effective way.

Meanwhile, the early adoption of the more long-term technology tends to be driven by the largest practices. For smaller practices, there will possibly be a time lag, due to the time it takes technology to become more affordable.

At the end of the day, Lyford-Smith says, tech innovation is an “external force that is pushing the profession into a certain direction, and we are not unaware of this and we are not complacent on this.

“All these topics are part of the ACA qualification and we are seeing an increase in prominence in the qualification.

“The profession as a whole and ICAEW in particular are aware and are not complacently standing by. We couldn't keep doing what accountants were doing when spreadsheets were introduced.”

Gillon is cautiously optimistic: “In the longer-term, we do recognise the risk to jobs across the economy from these powerful technologies, including the accountancy profession. This will lead to very different ways of working with machines to exploit the best of both worlds - artificial and human intelligence.

“The profession needs to be open to radical change, driven by the value it offers to economies and societies and focused on the unique skills that accountants bring” ●

AI development focused on trying to replicate reason, but machine-learning based on rules, however sophisticated, will ultimately be defeated by the greater complexity of the real world,” says Gillon .

David Lyford-Smith, a technical manager for ICAEW's IT Faculty agrees: “Overall, the accounting profession will be able to provide more services, more powerful and interesting things due to the fact that they are not going to have to worry about these ground-level transactional kind of things.

“Big data and data analytics will undoubtedly change the way young people will train to become accountants. This means that when people do their training, they will start training in a different way, and will start their careers at a higher point in the chain,” he continues.

Lyford-Smith predicts the amount of accounting being done will increase, but not all of it will be done by accountants: “A lot of bookkeeping and backing up will be taken care of by automation, data analytics, blockchain and all kinds of tech looking to change how the process is done,” he says.

TECHNICAL CONTENT

The Big Four have started to hire more data scientists, however, as Lyford-Smith points out there are some teething problems: “Their accounting staff do not know how to communicate what they need and the computer science people don't understand the business information they are looking at.”

So, important skills for accountants will be working across functions, communication and working with others. The ACA skills focus on being able to work collaboratively with and across other departments.

“I suspect we will see some technical content within the accounting training and a possibility for people to specialise in accounting technology at that area. And we will see more demand for the essential part of the accounting skills for non-accounting people. The profession as a whole will move to a more technical field,” Lyford-Smith suggests.

According to the recruiter Hays, there has been a high demand for jobs within audit, risk and compliance as organisations automate processes and



is for... data

“The profession needs to be open to radical change”



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