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THIS CHRISTMAS

FINTECH EVOLUTION
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AND SINGAPORE'S
LEAD ON FINTECH

GOING GLOBAL
A LOOK AT THE IT
FACULTY'S WORK
ACROSS THE WORLD

REMAINING RESILIENT

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November/December 2018 Issue 218

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Trust in tech



As we approach the end of another busy year in tech, it is good to reflect on what has happened this year and what the implications are for next.

Tech continues to power the agenda, with our ABCD mnemonic (Artificial intelligence, blockchain, cyber and data) of transformational technologies providing a valuable framework to talk around how technology is shaping our profession (I sit on IFAC's Technology Advisory

Group and they have taken this mnemonic to their hearts too!). I do see this technology starting to have an impact on smaller firms (perhaps with the exception of blockchain, for now). It still surprises me how quickly these terms have entered common parlance.

Perhaps the biggest issue in the profession currently is one of trust, in the UK spurred on by the collapse of Carillion, but with a number of other public cases too. Various projects are under way, including the Kingman review, CMA market study and Prem Sikka's review for the Labour Party. We look forward to conclusions reached and suggestions made.

The issue of trust in technology is starting to exercise minds too, particularly around the use of AI and data. With more and more decisions being taken by algorithms on our behalf, how can we be sure they are correct, and who should be accountable when things go wrong? 'Modern' AI (which uses machine learning) relies on data to learn and improve. But what if the underlying data itself is biased, albeit unintentionally? How can we be sure our personal data is being kept private and not being used against us? What are the ethical considerations of automation taking out swathes of manual and low-level jobs? How can we be sure that algorithms, which are made up of lines of code, act in a way which is fair and reflects human values?

We are starting to consider these questions in more detail - particularly because, as suggested, AI is starting to affect the work of smaller organisations. This includes consideration of the existing ethical code and whether it remains fit for purpose in this new environment (thinking about confidentiality - with all the data accountants hold, and competence and due care - and understanding how new tech affects our clients).

We will continue to support you with that last principle as we help you navigate your way through the technology maze. We thank you for your support this year and look forward to continuing to serve you in 2019.

As ever, we welcome any suggestions or feedback you may have.

Richard Anning
Head of faculty

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To comment on your magazine, please email publishing@icaew.com



IT Faculty

Jeremy Boss Chair

T: +44 (0)7791 293 319
E: jeremy.boss@btinternet.com

Nicola Granger Deputy chair

T: +44 (0)7464 652 779
E: nic.granger@ogauthority.co.uk

Neil Christie Vice chair

T: +44 (0)1753 471943
E: neil.christie@iomart.com

Richard Anning Head of IT Faculty

T: +44 (0)20 7920 8635
E: richard.anning@icaew.com

Kirstin Gillon Technical manager

T: +44 (0)20 7920 8538
E: kirstin.gillon@icaew.com

David Lyford-Smith Technical manager, IT & the profession

T: +44 (0)20 7920 8643
E: david.lyford-smith@icaew.com

Mark Taylor Technical manager, technical innovation

T: +44 (0)20 7920 8476
E: mark.taylor@icaew.com

Tracy Gray Services manager

T: +44 (0)20 7920 8526
E: tracy.gray@icaew.com

Contact details

IT Faculty
ICAEW
Chartered Accountants' Hall
Moorgate Place
London EC2R 6EA UK
☎ +44 (0)20 7920 8481
✉ itfac@icaew.com
icaew.com/itfac

Chartech is produced
by Progressive Content
Standard House
12-13 Essex Street
London WC2R 3AA

Advertising enquiries to:
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please email us at publishing@icaew.com

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NEWS & EVENTS



CRACKING DOWN ON CYBERCRIME

The value of data has never been higher and, as a result, the threat from cybercrime has never been greater. However, as the *NCSC Annual Report* shows (see page 7), the UK continues to build strong cyber defences. ICAEW has recently launched a 'safe space' for members to discuss cyber-security and share their experiences without

compromising business reputation. The forum will allow organisations to learn best practice, hear the latest threat intelligence and take advantage of world-leading expertise. As such, businesses and practices will be able to reduce risk and improve resilience. Find out more about how this forum can help your organisation at icaew.com/cisp

RENEW YOUR MEMBERSHIP



As part of our ongoing commitment to your continuing professional development, we expanded our Tech Essentials series of publications this year.

This included guides on fintech, robotic process automation and the Internet of Things. We also encourage you to begin or progress with your Excel training, which is included as part of your membership.

Next year, technology will remain centre stage, with the effects continuing to be felt throughout the profession. Certain themes still dominate the agenda, including artificial intelligence, blockchain, big data and ethics, cyber security, Making Tax Digital and GDPR. Renew today at icaew.com/facultyrenew

ICAEW GOES INTERNATIONAL

David Lyford-Smith, (below), technical manager, IT and the profession at the Faculty, recently represented ICAEW at a series of international events.

He shared the IT Faculty's thought leadership work on technology and the profession with members in Greece and Cyprus, discussed blockchain for accountants at the United Nations Conference on Trade and Development in Geneva, and gave a speech on the future of the profession at the Chamber of Financial Auditors of Romania to mark its centenary.



IT FACULTY EVENTS

2019 WEBINARS

We are continuing to plan our webinar programme for next year. An addition to the usual schedule will be our new bite-size series, which focuses on the faculty's Tech Essentials guides. To kick off this new series robotic process automation, fintech and automating your practice will be discussed and key points will be analysed.

As the Excel webinar list continues to grow, at least six Excel-related topics will be covered. This will include modern Excel and financial modelling. The faculty's David Lyford-Smith will carry on his popular Excel Tip of the Week live webinars. Further information, including registration details, will be available in the next edition of *Chartech*.

WEBINAR ARCHIVE

Don't forget there are webinar recordings available for you to watch, whenever it is convenient.

Topics include: Top 10 functions for financial modelling; Power Query: how to get started; GDPR; Why the 20 principles for good spreadsheet practice are important; Password management good practice; Keeping safe in the new digital tax world; Power Bi Desktop - turn data into action and Excel Tip of the Week Live #5.

There are also introductions to VLOOKUP, INDEX MATCH and pivot tables.

Our webinar recordings can be found at icaew.com/excelwebinars and icaew.com/itwebinars

AI PROJECTS IN DIGITAL COMMERCE REAP REWARDS

New research by analyst Gartner suggests that artificial intelligence (AI) projects are reaping rewards in digital commerce. A survey of more than 300 digital commerce organisations using or piloting AI across the US, Canada, Brazil, France, Germany, the UK, Australia, New Zealand, India and China has found that 70% of all AI projects are deemed successful.

Three quarters of respondents to the survey said they were seeing double-digit

improvements in the outcomes they measure. Of the top three most common metrics measured – customer satisfaction, revenue and cost reduction – improvements of 19%, 15% and 15% were reported respectively.

Gartner says that by 2020 AI will be used by at least 60% of digital commerce organisations, and 30%

of revenue in digital commerce will be attributable to AI. More detail, including on the challenges of rolling out AI in digital commerce, can be found at tinyurl.com/CH-ALSUCCESS

70%

NUMBER OF SUCCESSFUL AI PROJECTS



GOVERNMENT ISSUES VOLUNTARY CODE OF PRACTICE FOR IOT DEVICES

The UK government has published a voluntary code of practice to help manufacturers boost the security of internet-connected devices. In announcing the Code's publication, the government said it had been signed up to by HP and Centrica Hive Ltd.

The Code of Practice outlines 13 guidelines that manufacturers of consumer devices should implement in their products to protect users' security. The guidelines cover areas such as the secure storage of personal data, issuing of regular software updates to ensure devices are kept up to date against emerging security threats, the removal of default passwords, and making it easier for users to remove their personal data from products.

The code of practice, and the *Secure by Design* report which preceded it, can be found at tinyurl.com/CH-SecureByDesign

GOOGLE IS CLOSING GOOGLE+ FOR CONSUMERS

Google will close down its Google+ service for consumers in August 2019. It will remain open to businesses as an internal corporate social network.

Google said in a blog post that a security review called Project Strobe found a security flaw in a Google+ API. An API is code which allows third parties to use services without having to programme them from scratch. Think of an app using a phone's camera. In this case, the API allows Google+ users to grant access to their own profiles and the public profiles of their friends to Google+ apps. However, the flaw meant that apps had access to profile fields that were not marked as public.

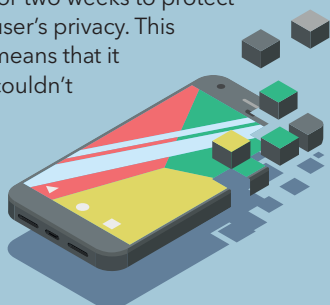
Google said it only keeps this particular API's log data for two weeks to protect user's privacy. This means that it couldn't

tell how many users were affected since the security flaw was discovered and patched in March 2018. But Google did estimate that profiles of up to 500,000 Google+ accounts were potentially affected.

This was used as the spark to close Google+ to consumers. In the same blog, Google admits that use of Google+ was not high, noting that the platform had not achieved either broad consumer or developer adoption. It notes that 90% of consumer sessions on Google+ last less than five seconds.

Google made a range of other security announcements at the same time, including that consumers will get more fine-grained control over what account data they choose to share with each app. Instead of seeing all requested permissions in a single screen, apps will have to show users each requested permission, one at a time, within its own dialog box.

There is more detail on this and other initiatives on the Google blog tinyurl.com/CH-ProjectStrobe



By Sandra Vogel
Freelance IT writer
sandra@svogel.com

SOCIAL ACTION AND SOCIAL MEDIA

A new report from thinktank Demos looks at the relationship between social action and social media, analysing how social media is used in modern debate and campaigning.

Demos reports some fascinating findings, including:

- Nearly two thirds of young people (64%) see social media platforms as an essential part of achieving social change, and over half of 35-50 year olds agree (55%).
- Young women are nearly twice as likely to use social media to campaign on issues important to them (19%) than young men (10%).

- Over half (55%) of young people in the UK believe social media makes positive offline change more likely to happen.
- Half of young people who report using social media to communicate with community groups, charities and campaign groups do so on a daily basis.

The report, *Plugged in: Social Action on Social Media*, suggests that a lack of availability of social tools to everyone might contribute to an 'activism gap', where only those who are able to engage digitally can have their voices heard.

You can view the report in full at tinyurl.com/CH-SocialAction

NCSC RELEASES SECOND ANNUAL REVIEW

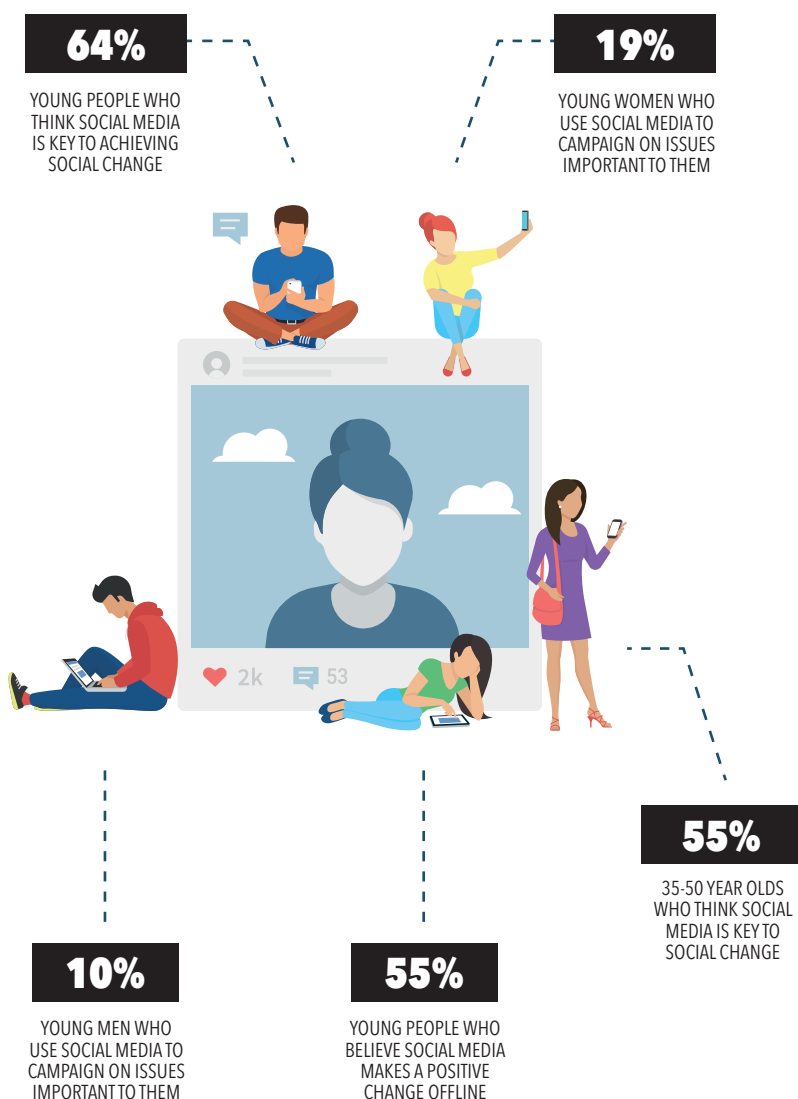


To mark its second anniversary, the National Cyber Security Centre (NCSC) published its second annual review, which provides a snapshot of its work from early September 2017 to late August 2018.

According to the report, the NCSC's cyber security front line provided support to 557 cyber incidents in the past 12 months (1,167 in total since its creation). It also revealed that most attacks were carried out by hostile nation states.

The review also looked at the organisation's Active Cyber Defence (ACD) initiative, which has the objective of protecting the nation from "high-volume commodity attacks that affect people's everyday lives". Due to the ACD, the UK's share of visible global phishing attacks was halved from 5.3% to 2.4%. Additionally, the ACD removed 138,398 phishing sites hosted in the UK over the past 12 months.

To read the NCSC's *Annual Report 2018*, visit tinyurl.com/CH-AnRev2018



OFCOM CALLS FOR CLARITY IN HANDSET CHARGES



Communications watchdog Ofcom has set out proposals to ensure fairer, more transparent prices for mobile customers who pay for handsets and airtime within the same contract. Ofcom's research suggests around two in three pay-monthly mobile customers are on a contract that bundles the cost of a handset with the cost of using the phone, known as airtime.

Ofcom is concerned that a significant minority of customers get poor value for money in this system, for example by continuing to pay the same price after their minimum contract period is ended. The watchdog thinks 1.5 million consumers are in this situation, effectively paying towards the cost of a phone that is already paid off. They also think there is a lack of transparency about the proportion of a subscription that goes on the handset and the proportion on airtime.

So, Ofcom has consulted on different ways to solve the problem, such as requiring firms to break down the cost of a package into its constituent parts.

The consultation period ended in November, and a final report will be published in due course. More information is at tinyurl.com/CH-OfcomContracts

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JESSICA PILLOW

I was boarding a boat from Vienna to Slovakia for a summer holiday tour of the Danube when I received the call that every accounting practice manager dreads. It was one of my team alerting me to the fact they'd discovered a cyber fraud that morning. Let me tell you a few more details, in the hope that you can ensure your practice would have sufficient controls in place not to fall victim.

My team member had been receiving emails, in the normal style, asking her to pay supplier invoices for one of our clients for whom we perform bookkeeping services. The team member paid the suppliers despite them being new and the payment amounts being over the normal prescribed maximum payment amount, which meant it had to be split in two. She did check that she should be splitting the payment due to the payment limit, but by email, which of course went to the fraudster rather than the client.

She then entered the supplier invoices into Xero but did not allocate them to the client's specific developments in the normal way, as this was not marked on the invoice. She paid out three invoices in all, each one to a new supplier and each one over the normal maximum payment amount. It was only discovered because the client looked at Xero.

There is no doubt that although the original cause of the fraud was hacking of our client's email system, it was only successful due to weak systems at Pillow May. Our client has been extremely generous and made time to help us improve our systems. We explored exactly what went wrong and then discussed how the system could be improved. We took these actions:

1. We introduced a new engagement document, *The Scope of Bookkeeping Work*, which lists all the bookkeeping

LEARNING FROM CYBER ATTACKS

What my firm did after falling prey to the actions of a hacker – and how to avoid the same fate

tasks that must be done for the client and notes whether the Pillow May team or a named member of the client team performs the task. This document is invaluable for appropriate delegation of tasks; it highlights any weaknesses in systems and is invaluable if anyone involved leaves!

2. We ran a bookkeeping team training session where we explored in detail what had gone wrong and discussed:

- the importance of our bookkeeping systems, such as bank reconciliations and departmental tracking, for identifying fraud as early as possible;
- the importance of understanding the nature of every transaction we process to ensure it is in line with the client's normal business dealings (this is crucial for money laundering purposes too); and
- the danger of over-reliance on email as you can never be sure who you are communicating with. Pick up the phone to ask questions!

3. We implemented dual bank authority for all bookkeeping clients, and also encouraged our clients to do the same if they handle payments internally. This is not due to a lack of trust but to stop any one person becoming liable for a fraudulent payment. With online banking apps, it is quick and easy to approve bank payments as the second signatory. If we are setting up payments for clients, we will have an additional agreement in place, which explains the invoice payment approval system and the new supplier approval process.

4. We have examined our own internal systems and introduced:

- additional security checks on our email system so it is regularly checked for automatic forwarding rules and ransomware;
- dual authentication on all our software accounts where we store client data; and
- automatic updating of all our software as soon as the latest version is released.

5. We took out cyber liability insurance which covers fraudulent payments. While we were covered in this instance under our professional indemnity insurance, if the fraudulent supplier payments had belonged to Pillow May then we would not have been covered. The insurers gave us a list of security measures to introduce into our practice, such as changing our main passwords every 90 days.

I hope that by sharing the details of our cyber attack, accountants can avoid being easy targets. Solicitors have already been targeted and have consequently tightened their payment systems. Let's make sure accountants are not the next victims. ●

Jessica Pillow, managing director, Pillow May chartered accountants

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*Wireless/Inductive Mobile Phone Charging is an option at extra cost.



DEREK BLAIR

Most of our new clients over the past two to three years have been start-ups who we have either set up from scratch on a cloud accounting platform or who have required help with their conversion from spreadsheets or a desktop accounts package.

However, we have begun to increasingly experience the phenomenon of being approached by prospects who are already on cloud accounting platforms, most commonly Xero or QBO, and have got their data into a tangle. They invariably have accountants, but ones who are still stuck in the once-a-year annual cycle and have not provided training or ongoing monitoring and query-resolution support.

TANGLED UP

What we are discovering is that the requirements of the already digitally converted are sometimes significantly different from those that haven't been previously converted. The post-conversion clients do not need to be persuaded about the merits of digital. They get it. But they realise that they are being denied the perceived benefits because their data has gotten out of control and they have stopped believing the information presented on their dashboard and management information (MI) reports.

When it comes to why these entanglements occur, there is an endless list of possible reasons. Maybe connected apps have been badly set up and are busy pumping data into the wrong nominal codes? Or a slight trigger-happiness has crept into the use of the OK button on the bank reconciliation screen? Sometimes, duplications in the client or supplier contact details are the culprits.

WANTED: EXPERIENCED DATA PLUMBERS

There are ample market opportunities to be found in helping businesses untangle their data

Whatever the cause, the untangling process can be quite involved. It often requires slightly more experienced staff to add a bit of problem-solving skill and may appear to be uneconomical compared with the very reasonable cost of subscribing for the use of these accounts platforms - somewhere in the region of £5 to £25 per month. The Find and Recode function comes into its own on these occasions.

The client might need to unlearn some bad habits and be shown how to enter data properly. The lid may need to be lifted on connected apps to re-programme where data is directed. I heard someone describe this app re-programming as "data plumbing" the other day and it seems apt.

The reason I believe that all of this is strategically significant is that some accountancy firms are in the process of on-boarding their clients onto accounting platforms at a formidable pace ahead of the Making Tax Digital (MTD) deadline, possibly without much training or support, due to the time pressure. Some clients, left to their own devices and not closely monitored, are capable of a rather random scatter of their data as they attempt to cram it into the system.

I am not blaming either the clients or their accountants for this situation, merely flagging that it is happening and that it represents an opportunity for accountants who are comfortable with the software and resourced with the necessary staff. Those with the necessary data plumbing and client communications skills, as well as the experience to civilise it, will allow the client to unlock the benefits and bring them clean data and meaningful MI once again. ●

Derek Blair, partner, Pinkham Blair and a member of ICAEW's Council, representing Beds, Bucks and Herts

RECOGNISE THE RISKS

As cyber security risks continue to expand and evolve at an increasing pace, so cyber resilience becomes critical to an organisation's ability to operate, says **George Quigley**

Technology, in the context of a wider business, is an enabler that provides business advantage. A cyber risk management strategy, which effectively quantifies, qualifies and mitigates your technology risks, when properly aligned to your business strategy, will sustainably protect your business in a cost-effective, pragmatic and practical way. But how do you achieve cyber resilience?

BACKGROUND

While General Data Protection Regulation (GDPR) was headline news in 2018, the EU directive on the security of networks and information systems (known as the NIS Directive) was also transposed into UK law. This means that organisations in critical sectors (water, energy, health, transport and digital service providers) have to implement robust levels of cyber resilience, an indication of how seriously governments are taking this issue.

Although cyber resilience is a relatively new concept, it has its foundations in the past. It comprises cyber security, business continuity and operational resilience and aims to defend against cyber threats, enabling organisations to successfully recover following an attack.

FOUNDATIONS

Over the years, many organisations have had some form of disaster recovery plan in place, should important data be lost or IT systems fail. The same cannot be said for business continuity plans.

In fact, there are many examples where companies have been unable to continue operating effectively following system failure, even when those systems were back up and running at a disaster recovery site in a relatively short space of time. The IT team had translated what the business need was but the wider business was not engaged in the process, as they saw it as a technology problem, not a business issue.

A consideration of risk is needed in order to avoid this scenario. Cyber risk, as defined by the Institute of Risk Management, is the risk of financial loss, disruption or damage to the reputation of an organisation from some sort of failure of its IT systems.

APPROACH

To achieve robust and sustainable cyber resilience, a structured approach to the

consideration of risk is called for. A fast and effective approach that we have implemented involves four key steps:

1. **Business assessment.**
2. **Governance and oversight.**
3. **Risk management framework.**
4. **Incident response and recovery.**

BUSINESS ASSESSMENT

While you understand your business and how it operates, to what extent do you understand your use of systems and data, and how they drive value?

Do you know what your prized technology assets are and do you understand the interaction they have with other systems and data?

To what extent have you outsourced your infrastructure to third parties and do you understand the contractual obligations and liabilities that are placed on both parties?

A detailed assessment will allow you to build a clear picture of your technology and data assets, assess the economic impact of a cyber incident and provide the foundation for considering your governance and oversight mechanisms.

Throughout this assessment, keep in mind the three key elements of cyber security, namely confidentiality, integrity and availability. In particular, consider the implications of the regulatory environment, including the potential impact of GDPR.

GOVERNANCE AND OVERSIGHT

The next thing to consider is how well your governance framework and your approach to the management of risk deals with cyber risk. One of the issues that businesses often find particularly challenging is understanding the financial impact of an incident or breach. Businesses often ask if they are spending too much or too little on cyber security, on business continuity or on resilience.

The initial business assessment allows you to understand the likely financial impact of a cyber incident more fully. It helps you to make a better assessment of your risk appetite, which may be different for different elements of your business. Budgets can then be allocated accordingly. The aim would be to align the cyber risk strategy to the business strategy. Governance issues that should be resolved include:

Using your business assessment, you can ask a number of key questions designed to check whether your management of cyber risk is complete

- Who is responsible for cyber risk at a senior level?
- Who is managing those risks?
- How are they being reported to the board?
- Have you considered all legal and regulatory risks?

Your governance arrangements, combined with your business assessment, provide the basis for evaluating your risk management practices.

RISK MANAGEMENT FRAMEWORK

Most businesses operate a risk management framework, albeit with varying levels of formality. How your risk management framework deals with cyber risk is your next consideration.

Using your business assessment, you can ask a number of key questions designed to check whether your management of cyber risk is complete and operates in such a way as to bring the residual risk in line with your risk appetite. These questions include the following:

- Have you identified all of the key cyber risks you are exposed to?
- Are you still content with your assessment of the impact and likelihood of those risks occurring?
- Are you still happy with the way those risks have been addressed (treat/transfer/avoid/accept)?
- For those we are treating, do the controls that we have noted appear to be sufficient?
- Do you need the controls you have?
- Could you achieve the same aim with more efficient controls?

- Do you need additional controls? This process should help identify any gaps, which can then be dealt with in order to appropriately address the risk.

INCIDENT RESPONSE AND RECOVERY

What we haven't yet assessed is what happens when you have a control or other failure that leads to a system failure. For that you need to consider your incident response and recovery plans, and how they align to your business continuity and other resilience plans.

You need to assess how robust your incident response plans are:

- Are they based on risk and prioritised appropriately?
- How would you identify an incident?
- Do your plans allow you to recover in a timely manner?
- How have they been aligned to your business continuity strategy?

Once completed these plans should be tested in order to assess how effective they are. Key learning opportunities include understanding what tensions were encountered during the test and what gaps were identified. Your plans should also be revisited regularly to ensure they evolve in line with changes to the business and to address new threats as they emerge.


There may be instances where you identify gaps that you cannot close. In these instances you need to consider to what extent you need to update your communication plans so that you can inform and reassure your clients, regulators and wider stakeholders.

Taking a structured, risk-based approach to cyber resilience, aligned to your business strategy, will enable you to take practical and pragmatic steps to protect your business in a cost-effective way.

The approach outlined above can identify cost savings that can make the exercise cost-neutral or, in some cases, positive while achieving the aim of understanding and reducing your risk of a cyber attack. ●



George Quigley, cyber risk consultant with foulkon.com and KPMG ex-partner, provides insights into cyber resilience



As fintech grows in popularity, so does the ambition of countries wanting to grow the sector. **Kirstin Gillon** explains what can be learned from London and Singapore

FINTECH INNOVATION IN LONDON AND SINGAPORE

New technologies such as big data, artificial intelligence (AI) and blockchain can help transform the way that financial services are delivered, making them cheaper, more efficient, more convenient and more inclusive. Fintech is therefore a hot topic around the world, with a Fintech Global survey reporting that investment in the sector almost doubled to \$38.9bn between 2014 and 2017. So it's no surprise that many countries around the world have ambitions to create and grow a fintech sector. But what do they need to do to be successful?

London and Singapore consistently rate highly as leading fintech hubs. By learning more about their success, and the challenges they face, we can better understand what drives fintech innovation more generally. The IT Faculty launched a joint report with the Institute of Singapore Chartered Accountants in October 2018, which explored fintech in Singapore and London. It highlighted common strengths, as well as key differences between the markets.

HUBS ACROSS THE WORLD

The concept of a hub is simple - having everything you need in one place supports and accelerates innovation. It enables interaction, learning and building of networks between innovators, investors and regulators. It can also support specialisation and economies of scale.

Historically, financial hubs often developed alongside trade routes, so that the capital providers were physically close to the traders who needed the capital. Tech hubs are often close to universities, providing talent and early development environments for new ideas.

There are five basic elements (talent, capital, markets, regulation and government support) that make up a fintech hub and both London and Singapore benefit from having all of these elements in a single location. Furthermore, both locations have mature and successful financial services sectors already, which provides strong foundations for fintech.

REGULATION AND INNOVATION

Regulation is the element that is most specific to fintech, as financial services is a heavily regulated sector of the economy. This contrasts with many other areas of tech innovation where companies may set themselves up to avoid some of the regulation of the existing sector.

Fintech innovators have to be able to understand and manage the requirements of financial services regulators. And regulators need to be responsive to changes in the market place. However, that is not an easy balance to get right.

Regulation that moves too slowly often creates uncertainty around innovation and discourages investment - clear regulation can play an important role in encouraging trust and confidence, thereby encouraging growth. However, regulating too quickly can stifle innovation, and may not reflect the full benefits and risks of the change.

The Monetary Authority of Singapore (MAS) and the Financial Conduct Authority (FCA) are seen as an important part of the success of both locations. The FCA, for example, pioneered the regulatory sandbox, which is an early test-bed environment for innovations that allows regulators and innovators to understand the benefits and risks of new products and services, and test them against current regulations.

MAS has also taken a leading role in areas as diverse as blockchain and the ethics around data and AI in financial services. Project Ubin, for example, is a cross-industry collaboration led by MAS to use distributed ledger technology



in the financial system. MAS has also convened a wide-ranging industry group to develop guidance for the ethical use of data in fintech and financial services.

DIFFERENT MARKETS

But while there are many similarities between the two locations, and they have many of the same strengths, they serve very different markets.

Fintech in the UK has had a significant focus on disrupting existing providers. The UK has a large, domestic financial services market dominated by a small number of providers. Fintech can increase competition and thereby make services cheaper, better and more focused on the needs of customers. This has proved difficult to achieve in practice, and many start-ups have struggled to gain traction against the deep pockets, large customer bases and strong brands of established providers. Most ambitious start-ups will also be looking to markets beyond the UK. However, this emphasis on competition and disruption has framed a lot of the debate about fintech in the UK.

As a small country, with a population of six million, Singapore is more of a test-bed and gateway into the much bigger markets across South East Asia. These markets include many 'unbanked' citizens across the region, and fintech provides significant opportunities to increase financial inclusion. There has also been a more collaborative approach

overall in Singapore. The banks have strong brands and fintech can help the sector digitalise and innovate, rather than disrupt it directly.

Consequently, while the key elements are common, the two fintech scenes have distinct flavours. The benefits and objectives are framed differently and the regulators tailor their specific interventions to meet these local needs.

Fintech is an important and growing sector. The governments in the UK and Singapore both have specific sector strategies that focus on fintech and it is seen as an important source of high-quality jobs in the future. Furthermore, building a strong fintech sector can help the existing financial services sectors maintain current advantages.

Accountants can play an important role in helping fintech businesses grow and deliver value to customers, and could be engaging more with the sector. The IT Faculty, along with the Financial Services Faculty, published its *Tech Essentials* guide to fintech earlier in 2018. Our new piece of international research provides a broader view of success and how countries can encourage innovation.

Download it at icaew.com/fintech •



Kirstin Gillon,
technical manager,
IT Faculty

CREATING A GLOBAL NETWORK

ICAEW provides support and resources for members overseas. Here we look at the key work of the IT Faculty

As well as being representative of England and Wales, ICAEW has offices serving members in Beijing, Brussels, Dubai, Hong Kong, Jakarta, Kuala Lumpur, Shanghai, Singapore and Vietnam. These bases bring opportunity for the IT Faculty to make connections with the wider global membership.

Faculty technical managers Kirstin Gillon and David Lyford-Smith have led the charge with this engagement. Gillon finished the year with invitations to appear at the World Bank and the World Congress of Accountants (WCOA), in Sydney, Australia, where the IT Faculty took ICAEW's only technical speaking slot. Lyford-Smith recently returned from speaking at the United Nations.

Such high-profile appearances are evidence that the faculty's thought leadership work has extended ICAEW's influence and profile in the technology space. "Our depth of knowledge is a big differentiator for us against some of the other accounting bodies," Gillon says.

Over the past two years, the faculty has used an acronym to keep stakeholders up to date in four key areas of technology: ABCD - artificial intelligence, blockchain, cyber and data. Lyford-Smith and Gillon agree that it has been a powerful framework for structuring the technology talks they are in demand to give.

Gillon says: "When it comes to AI, we get people asking lots of questions about ethics and data bias, and the challenges around that. Questions tend to be quite consistent wherever you go." Lyford-Smith adds: "Accountants are detail-oriented and technical, so they want to know the specifics of how blockchain works and how it is immutable; how to audit and account for cryptocurrencies."

THE PERSONAL CONNECTION

Events in Cyprus and Greece have attracted between 100 and 300 attendees this year. Roundtables have been particularly illuminating when it comes to practitioners sharing expertise and experience on topics such as the digitalisation of tax. "Senior partners will talk around the table about how to take digital tax systems further and share their pain points. There is input and insight on how to do digital tax well," Lyford-Smith explains.

Being in attendance at events can have other positive consequences. While in Cyprus, the government's finance ministry heard that Lyford-Smith was in the country and requested a meeting to discuss blockchain. "If I wasn't there, this wouldn't have happened," says Lyford-Smith. "It created a moment of focus around the topic."

Visiting contacts overseas makes it easier to get to know a diverse range of practices and businesses. It also helps gain a better understanding of the barriers faced in adapting to technological change and to identify who is at the leading edge. "We need to represent everyone," Gillon adds.

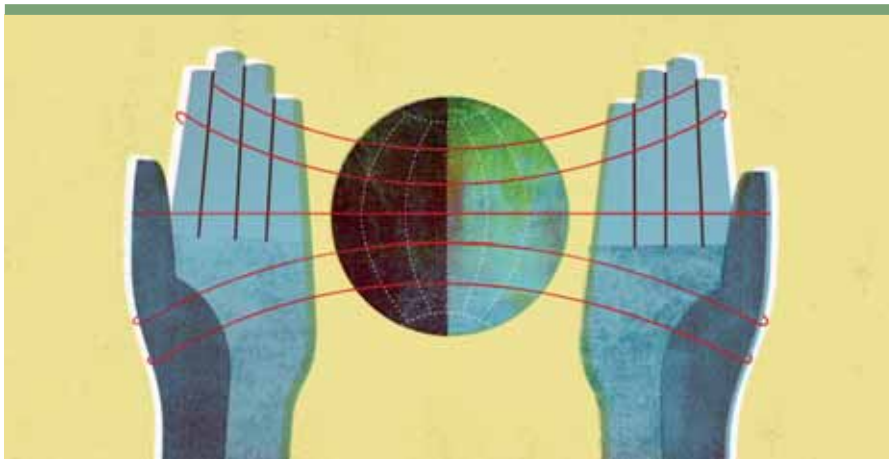
This ranges from those still getting to grips with cloud accounting, such as in Vietnam, to working with the Mauritius Institute of Professional Accountants (MIPA), which has the highest per capita number of accountants in the world.

Building organic relationships ultimately leads to strategic partnerships and close collaboration on thought leadership projects and reports. Last year this yielded a big data project with colleagues in China led by Gillon; this year she led the fintech report, which was launched recently in Singapore.

THE NEXT PHASE

The faculty's thought leadership plans for 2019 are only just starting to take shape, so it's too early to say where in the world the team may end up. But the international agenda is never far from their thoughts.

Lyford-Smith is working on a second edition of his report on the global uptake of digital tax systems (and the experience of digital exclusion), featuring an analysis of 12 countries, including Nigeria. ●



2018 INTERNATIONAL HIGHLIGHTS

David Lyford-Smith:

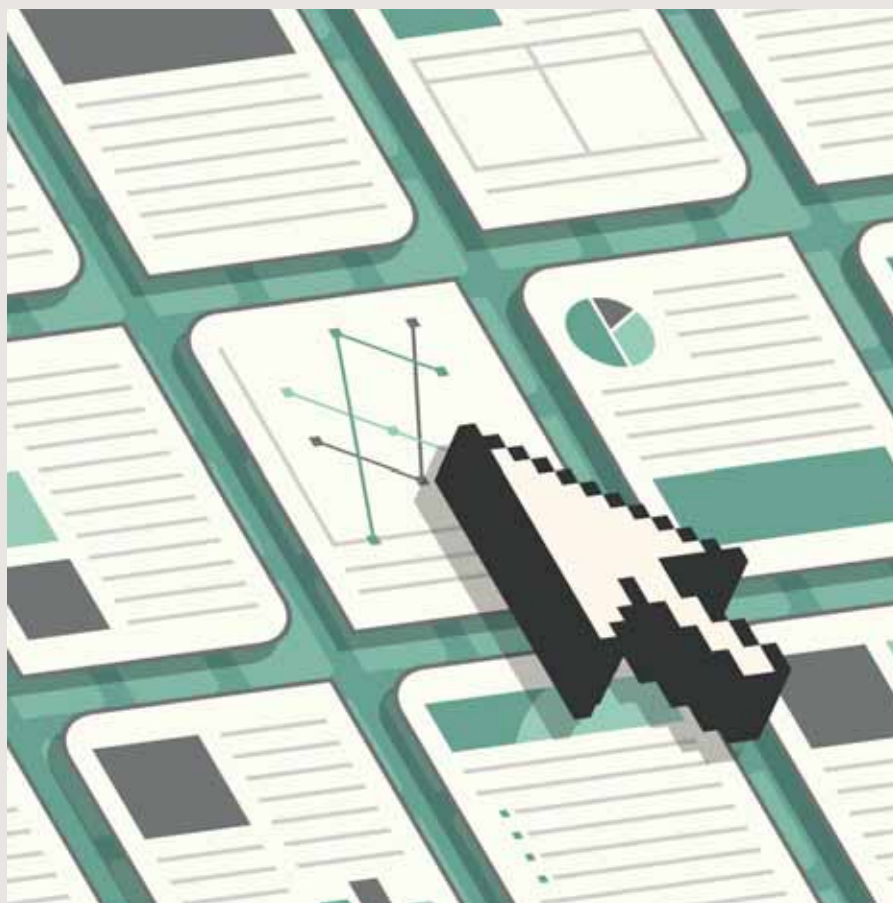
- Presented on blockchain in Abu Dhabi;
- Attended MIPA's conference;
- Convened two roundtables in Greece and Cyprus discussing digitalisation of tax systems;
- Spoke at the UN in Geneva about accounting standards for blockchain and cryptocurrencies;
- Presented on ABCD for centenary of the Romanian auditing institute.

Kirstin Gillon:

- Attended 30 events including in Singapore and Kuala Lumpur as part of the South East Asia tour.
- Member event in Rome, Italy on cyber security;
- Conducted research for the faculty's fintech report and hosted a roundtable with follow-up visit in Singapore;
- Spoke at the World Congress of Accountants in Australia;
- Spoke at a World Bank conference in Vienna.

KEEP TO THE CODE

The Excel Community has created a new code to help with financial modelling construction



Whether large or small, financial decisions of all kinds are made with models that are, more often than not, made in Excel or a comparable spreadsheet package. Forecasts, budgets, pricing models, investment appraisals, project financing and more are computed, crunched and laid out. Cells reference, calculate and output to more cells, creating the engine that drives decision-making in business.

But despite all this, many models are built haphazardly without a proper plan. Models are built without adhering to any particular standard or without knowledge of good practice. The consequences are often inefficient, risky and, indeed, incorrect models. The news often reports on cases of modelling gone wrong – most infamously, the 2012 West Coast mainline franchise, which was mis-awarded due to a badly built model and insufficient challenge from management. But modelling remains a core task for many businesses despite the difficulties and risks.

So what to do in this world? Having produced the landmark *Twenty Principles for Good Spreadsheet Practice* in 2013, ICAEW's Excel Community asked itself

these questions originally for the topic of spreadsheet risk and best practice as a whole. The principles produced were high-level and applicable for all spreadsheet users (icaew.com/excel20principles). But in the time since the *Twenty Principles*, the discussion has continued on how to best apply those lessons to the area of financial modelling.

In response to these questions, the Excel Community has now created the *Financial Modelling Code*. The code is an application of the tenets of best practice and the *Twenty principles* to financial modelling construction. Based on a review of a half dozen in-house methodologies and reviews from a baker's dozen of top modelling organisations, the code summarises the consensus best practice on a wide range of modelling questions. The

Models are built without adhering to any particular standard or without knowledge of good practice

recommendations aren't prescriptive – it's still up to each individual modeller how best to apply them – but they do provide a good starting point for any modelling engagement.

For example, naming cells. Some modellers name every cell and range going, and others all but outlaw the use of named cells. But the code doesn't take a side – instead, the recommendation is “use clear range names where appropriate”. Clarity and understandability are the key drivers, and so each modeller is free to make the decision that's right for them and the specific project they're working on.

The code tries to distil the often complex technical workings of models into the essential elements. If you're looking to commission an expert to make a model for you, the code will help you tell a good model from a bad one and ask the right questions. If you're doing modelling yourself, you may already be following these rules – but with the code you have an endorsement of your approach.

The code is available for free at icaew.com/financialmodelling

A list of supporting organisations is also provided. ●

PLAYING SANTA

It's that time of year again. Carols are playing, the wine is mulling and you're still trying to figure out what to get your loved ones for Christmas. Playing the role of Santa can be hard, and buying for family members who are accountants can be especially difficult. Here are a few fun, practical suggestions for even the most discerning of tastes!

1. FOR MUM, THE AUDITOR

Amazon Echo

A lot of quiet concentration is required in an auditor's working life. Musical accompaniment can be soothing without being distracting, which makes the Amazon Echo a perfect choice for mum. Now in their second and third generations, the various models can play all of her favourite tunes, whether from pre-defined playlists or from services like Spotify.

But the main attraction is the device's cloud-based voice service, Alexa. Thanks to Alexa, the Echo can answer verbal questions. So it can tell mum the time, give her departure information for trains and relay weather forecasts so she's prepared for those all-important meetings - and even answer factual questions - all without the need to move away from open spreadsheets.

Typical Online Price from: **£49.99**
Available: amazon.co.uk



2. FOR SISTER SUZIE, THE FORENSIC ACCOUNTANT

Plantronics Voyager 6200 UC

As a forensic accountant, Suzie spends a fair amount of time on her phone. A good hands-free headset is a vital tool and Suzie needs one that will pair with her laptop, phone and tablet at the same time because she wants to use them all interchangeably.

Plantronics' Voyager 6200 UC headset is made specifically with business in mind and provides top-quality sound for talking, listening to music and watching TV. The hands-free headset, which sits comfortably across your neck making it easy to travel with, features four omnidirectional microphones with noise cancelling to help reduce background hubbub.

Typical Online Price: from **£299.95**
Details: plantronics.com

3. FOR DAUGHTER JANE, THE MANAGEMENT ACCOUNTANT

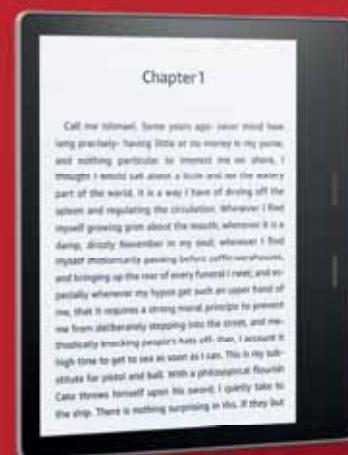
Kindle Oasis

A young accountant still making their way in the professional world has much to learn. Carrying hefty educational tomes around can be tricky, especially when there is client paperwork to manage as well.

But Jane can carry her learning in digital form. With a Kindle Oasis, she can have several different books with her at all times. This means time spent travelling and between meetings can be used to help keep on top of the learning. And she can also listen to audio books.

Typical Online Price: **£229**
Available: amazon.co.uk

3



4

4. FOR FATHER-IN-LAW EDWARD, THE CORPORATE ACCOUNTANT

Philips Hue Go

Edward often works late, especially during peak times in the accounting year. He doesn't mind the work, but is aware he needs to protect his eyes and working in artificial light can be a challenge.

The Philips Hue Go smart desk light will help Edward set the brightness he needs. It can work while plugged in to a power outlet or unplugged in portable mode. It also works with cloud-based voice services like Alexa, meaning Edward can control the lights with his voice. He can even change the colour to suit his mood.

Typical Online Price: **£70**
Details: meethue.com

5. FOR UNCLE JIM, THE TAX ACCOUNTANT

iPad Pro

There can be a lot of travelling in this job. With its large LED-backlit screen, the iPad Pro will let the travelling accountant work on the move direct to the screen and without the need for a keyboard. Additionally, the screen is big enough to make clear, pin-sharp presentations to clients. Add a SIM card, and Jim can always be online.

The screen comes in two sizes: 10.9ins and 12.9ins. Other features include a four-speaker audio system and an A10X processor, making it 30% faster than the previous generation.

Typical Online Price: from **£619**
Available: apple.com



6. FOR COUSIN ALISON, THE INSOLVENCY PRACTITIONER

Ring Video Doorbell

As an insolvency practitioner in a small practice, Alison spends a fair amount of time working from home and doesn't like distractions. A smart doorbell could bring much needed relief from unwanted callers, as it shows a picture of who is ringing and can even let you talk to the person to find out what they want. So, if that important parcel of documents is out for delivery, Alison can check who is at the door and answer to the courier, not the double-glazing salesperson.

Ring's Video Doorbell comes in four versions from basic to Elite, each with HD video and night vision. With the product app, you can see, hear and speak to those at your door from your phone, tablet or computer. It can also be connected to your existing doorbell wiring.

Typical Online Price: from **£89**
Available: en-uk.ring.com

7. FOR SON PETER, THE PUBLIC SECTOR ACCOUNTANT

Fujitsu ScanSnap S1100i

As an accountant, Peter encounters a lot of paper, and doesn't always want to carry it back to the office for scanning. The natural tendency might be to take photos, but this isn't practical. Scanning is better, as documents can easily be saved to PDF and converted to spreadsheets through PDF software. The original paperwork can also be left at the source while scanned copies are taken away.

The USB-powered Fujitsu ScanSnap S1100i is small and compact - good for those with a limited workspace who need to handle documents on the go.

Typical Online Price: **£130**
Details: fujitsu.com



REVISITING WORD LETTER TEMPLATES

Simon Hurst revisits Word templates for letters and explains how formatting can be used

In another rare foray into Office applications outside of Excel, we are going to look at using Word templates to impose your will. Just over three years ago, we looked at a Word letter template as part of a series on Office templates. This time, after a short recap of the main issues to be considered when creating a letter template, we will take our example further by removing the ability to use any formatting commands. Instead, any formatting will be applied using Word Styles.

CREATING A LETTERHEAD TEMPLATE - RECAP

Before looking at Styles and restrictions, we are going to briefly recap some of the main requirements for Word letter templates. More detailed template instructions are available in the July/August 2015 edition of *Chartech* (tinyurl.com/CH-Jul-Aug2015).

Electronic back issues of *Chartech* from 2013 onwards are all available from tinyurl.com/CH-BackIssues

Word templates are created by using the File, Save As option to save a standard Word document as a template. For a letter template we need to allow for the use of letterhead stationery. The margins will be different for the first page of each letter, compared to continuation sheets. We can do this in our letterhead template, without needing to start with a two page document each time, by using the Different first page

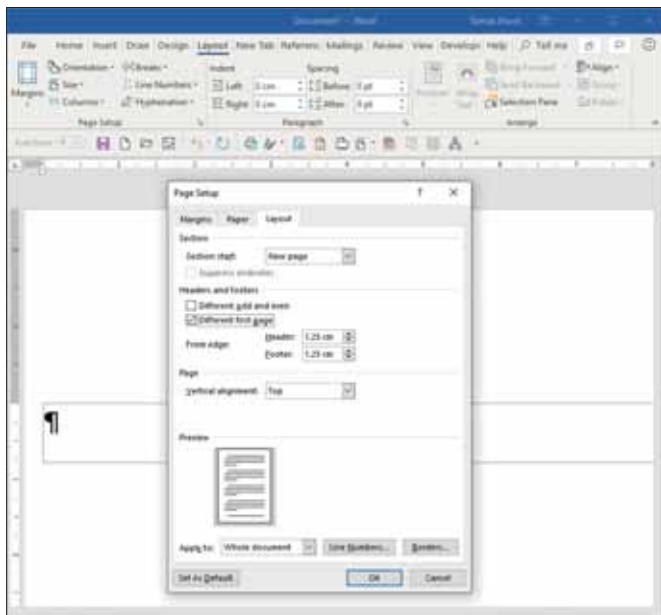


Figure 1

option in the Layout tab of the Page Setup dialog (Figure 1).

This doesn't allow us to set different margins for the first page, but it does allow for different headers and footers. If we are printing our own headers and footers we can add these to the first page. Additionally, if we are using pre-printed stationery then we can just add blank headers and footers to the first page to allow the appropriate amount of room.

To automate the inclusion of the current date in our letter template, we can use one of Word's special date fields. In the Text group of the Insert ribbon there is a Quick Parts dropdown that includes a Field... option. One of the fields in the Date and Time category is CreateDate. This allows for the choice of the required format and displays the date when the document was first created which, as long as we send our letter on the same day that we write it, should be the date we need (Figure 2).

WORD STYLES

In a normal Word document, it is possible to change every aspect of formatting in a variety of ways. Font formatting can be changed using keyboard shortcuts, the mini toolbar and the commands in the Font group of the Home Ribbon tab. Similarly, the Paragraph group of the same tab provides access to all the formatting commands relevant to whole paragraphs rather than individual characters. If you want to enforce a house style of formatting, the flexibility of Word can be problematic. One way to avoid this is to limit formatting to the use of Styles.

If you don't currently use Styles when working with Word then, as long as you use any formatting at all in your documents, it is worth understanding what they can do. At their simplest, Styles encapsulate any Word formatting, allowing anything from a single character to whole paragraphs to be formatted with a single click. The options available for formatting using font attributes are mostly obvious, but some paragraph formatting is better hidden. For example, a Style for a body text paragraph could set the font size but could also ensure that a paragraph that straddles a page break cannot leave a single line on the first page or abandon a single line on the second page (Widow/Orphan control); it can control the spacing above and below the paragraph and also apply any required indents. A new Style can be created, or an existing Style modified, to include all the formatting needed and this Style can belong to a Word template to ensure it is available to all documents based on that template.

A few minutes spent setting up your Style can save you a lifetime of manual formatting. But with Styles it is not the saving of time and effort with which we are concerned here, but the adherence to a house style. We will assume that we need comparatively few Styles for a letter: an inside address with no spacing between the lines; a normal body style; a heading; emphasis and a style for the closing section. Assuming we have set these Styles up or that we are happy to use the built-in Styles, we click on the Styles button in the very bottom right-hand corner of the Styles group and click on the Manage Styles button at the bottom of the Styles screen. There is a Restrict tab that allows you to mark the Styles to Permit or Restrict. Once you have permitted only your required Styles, you can then click the Limit formatting to permitted styles check box. You will be prompted to enter a password.

With the restrictions in place, none of the formatting commands will be available, whether on the Home Ribbon tab, the mini toolbar or through the use of keyboard shortcuts. The Styles gallery will just display your permitted Styles and your formatting will then be limited to the use of this list of Styles (Figure 3). ●

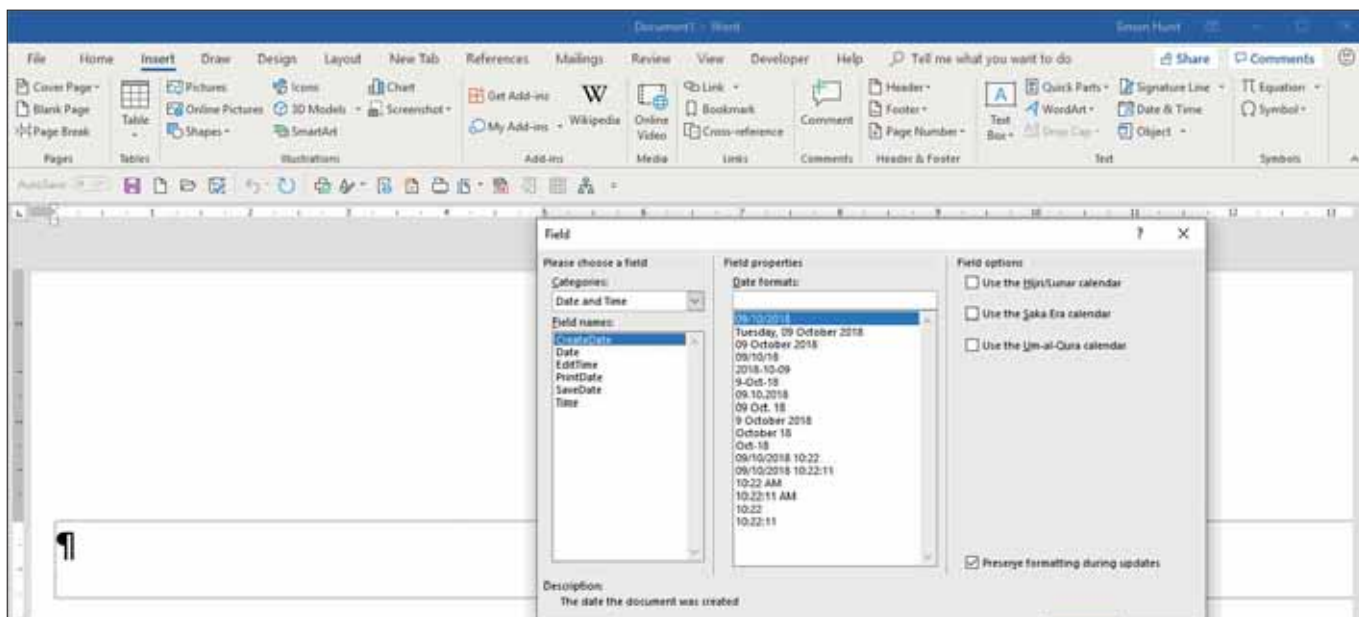


Figure 2

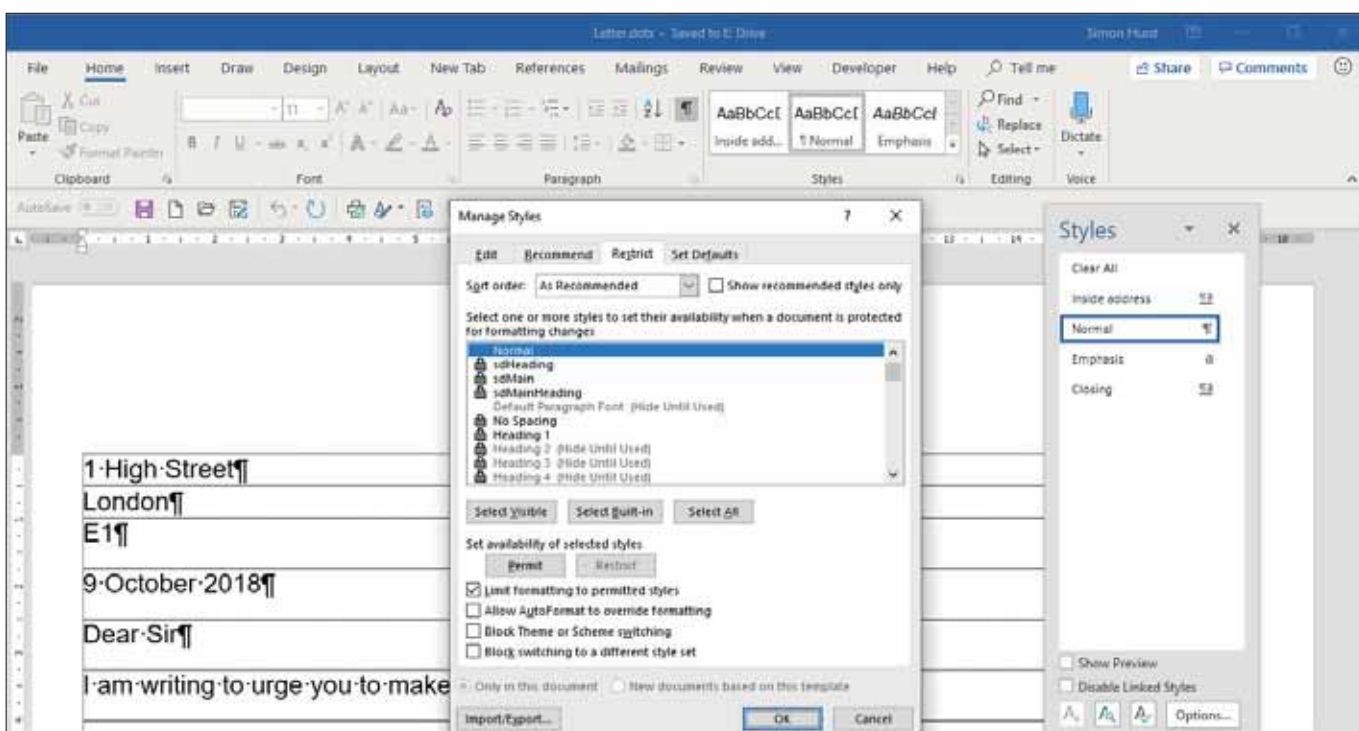


Figure 3

OTHER OFFICE TIPS

The Excel Community site includes many articles on Excel and other Office software. In addition, there is a forum where you can ask, and answer, questions on a wide range of Excel issues at tinyurl.com/CH-ExcelForum

The IT Counts site includes articles of more general interest including office

software and hardware, IT security, management reporting and cloud computing. It too has a forum at tinyurl.com/CH-ITCountsForum

Both IT Counts and the Excel Community are available for free to all IT Faculty members as part of their subscription.

Simon Hurst's book, Essential Excel for Accountants (and others), is available as a PDF at tinyurl.com/CH-TKBBooks

He has also included many useful Excel tips in the Lunchtime Learning section of his website, tinyurl.com/CH-ExcelTips



LEO WALDOOCK

When it comes to data protection across the EU, we have strict rules. And it's clear that the recent introduction of GDPR has already led to more speedy disclosure about data breaches. The law now gives companies 72 hours to report breaches on pain of significant fines based on annual revenue. These rules build on earlier legislation such as the Data Protection Act 1998, which includes guidance for data controllers to help them understand their obligations (see tinyurl.com/CH-AssetDisposal).

In an ideal world we all work with good intentions and deal with mistakes as they arise. But every so often you see an intriguing example of what happens when the rules are completely ignored.

In this instance, an insolvent Canadian company called NCIX closed its doors in December 2017 and saw its assets auctioned to cover part of its debts in 2018. NCIX gained a small amount of fame in the world of technical media when Linus Sebastian left the company to found Linus Media Group, which includes the successful Linus Tech Tips channel on YouTube. Sebastian covered news of the company's bankruptcy and sale of assets, including video from the auction.

He later covered a story on PrivacyFly that revealed the databases from NCIX covering the company's 17-year history were put up for sale on Craigslist (tinyurl.com/CH-NCIXBreach). It was alleged NCIX housed its servers in a warehouse for which it paid rent to a landlord. After NCIX failed, it owed a substantial amount of rent that was unlikely to be paid so the landlord reportedly sold the servers to a guy called 'Jeff' who had a plan. He had apparently accumulated NCIX servers, along with 109 hard drives that had been removed from the servers before they were auctioned. He is also said to have had 400-500 hard drives that had been removed from customers' PCs sent to

WRONG TURN

What happens when data protection goes completely wrong? A lot

In an ideal world we all work with good intentions and deal with mistakes as they arise. But every so often you see an intriguing example of what happens when the rules are completely ignored

NCIX for service or repair, and acquired a number of the workstation PCs NCIX used in its stores and headquarters.

Ordinarily these workstations would not have been able to connect to previously networked drives as they would be unavailable after the company had closed and the servers disconnected. But Jeff rebuilt the an entire network, complete with all the drives, so had access to all the data. He literally owned the network in one physical location, whereas it had previously been distributed across Canada.

The data allegedly contained staff records. People were naturally in despair: you can't change your social security number or date of birth the same way you can change a password. This is the fundamental problem with biometric ID cards; if the database is successfully attacked it is pretty much impossible to fix the damage as you can't change your fingerprints.

When a company, such as NCIX, fails it cannot simply delete its records. If it wiped hard drives and deleted back-ups it would doubtless be accused of covering its tracks and likely face legal action. Once the doors close and the receiver starts to handle affairs, drives are removed to protect data and then assets are sold off. The wrinkle here is that Jeff recognised that data on servers in remote warehouses was worth more than some clunky computers, and was capable of re-assembling networks of servers.

The only solution is to mandate that all companies use a third party to host their servers and store their back-ups, although many companies would object to a law that obliges them to pass their data to Amazon or Rackspace. The alternative would be end-to-end encryption with two-factor authentication. ●

Leo Waldoock, freelance IT writer



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