GUIDANCE NOTE

Simplifying technology

In partnership with







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1. Introduction

The first two guidance notes in this new series explored the future of workplace from the perspectives of culture and workspace. They looked at how people may work differently in future and what this may mean for the workspaces they use. You can download the guidance notes from www.iwfm.org.uk/insight.

This guidance note looks at the future of workplace from a technological perspective. Over the last year digital technologies have played a critical role in enabling organisations to continue working effectively, despite very challenging circumstances. Organisations that had previously been slow at adopting new digital tools had to introduce them quickly¹, in some cases literally overnight.

However, while the events of 2020 have undoubtedly led to a 'digital surge'², these developments also need to be seen as part of a longer-term trend in the digital transformation of workplace, going back decades. The reality is that technology has always shaped and been shaped by how we work and where we work.

In the previous guidance note in this series we suggested that for many organisations the future of work will involve their employees working in a 'hybrid' way: a mix of working in the office and remotely, including at home³.

In this guidance note we look at how technology can be used to enable this, so that working in a more hybrid way becomes a seamless experience. In the first part we look at the role that technology can playing in improving peoples' experiences of the corporate office and help FM and workplace professionals to optimise the use of those workspaces. In the second part we explore the role that technologies can play beyond the corporate office, in enabling and supporting remote working and hybrid teams.

The overall aim of this guidance note is to provide FM and workplace professionals with a better understanding of the role that technology can play in enabling a more hybrid workplace, so that they can have more informed conversations with colleagues and clients. It will also help them to adopt a more critical perspective on the role and impact of technology in the workplace.

WORKPLACE AND WORKSPACE - A QUICK REFRESH

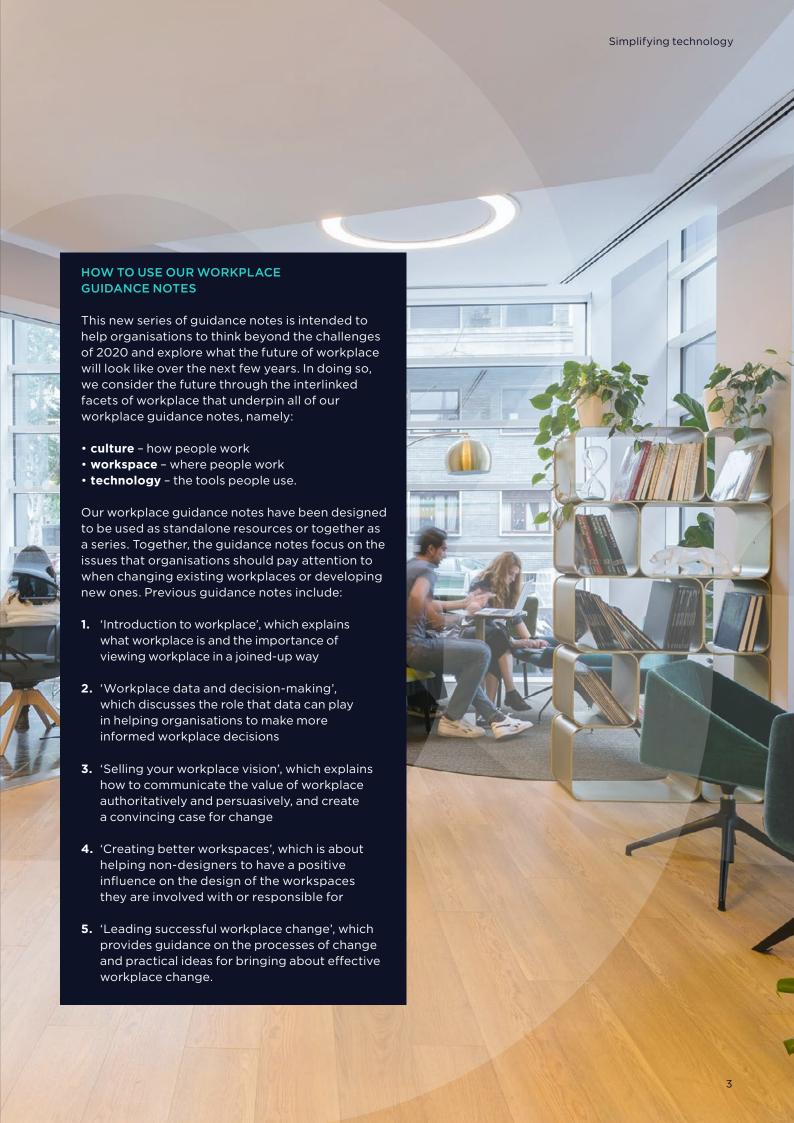
This is how we use the terms 'workplace' and 'workspace' in this guidance note:

- workplaces are the social places where people use the tools available to them to get their work done - a workplace contains and involves people
- workplaces can be fixed (for example hospitals, offices or our homes) or flexible (for example a work van or a temporary place of work)
- workspaces are the physical spaces or environments available for people to work in - spaces are empty and they become places when they have people in them.

Remember that words can be defined in different ways. These aren't the only definitions of workplace and workspace, but they are the ones that we believe allow FM to make the best contribution to organisations.



If you would like to provide feedback on this guidance note or have ideas for other workplace information, guidance or research, please email: research@iwfm.org.uk



2. Inside the office

People have long been fascinated by the role that technology can play in improving our workspaces. For instance, in the 1980s improvements in computing technology prompted an interest in 'smart' or 'intelligent' office buildings⁴. For the most part, the focus was on using computers to control or automate building systems, such as heating, ventilation, lighting and security.

Building management systems (BMS) have become increasingly sophisticated since the 1980s. However, it's only in the last decade or so that developments in Internet of Things (IoT) technology and artificial intelligence have offered the prospect of office buildings becoming genuinely 'smart', with "...the capability to learn and even anticipate their occupants' needs and preferences..."⁵.

Automating building systems can offer many benefits for the people who own and manage buildings, for instance by reducing operating costs, optimising maintenance regimes, predicting faults before they occur and extending asset life cycles. But such automation can also create tensions with building users, because it can reduce the degree to which they feel they have control over their environment⁶.

Over the years numerous studies have shown that perceived control is an important factor in peoples' satisfaction with their work environment⁷. Arguably the challenge for smart building systems designers is how to shift towards a user-centric mindset, in which smart systems provide users with more control over their environment, rather than less.

In some respects, this is akin to the tension between standardisation and customisation in manufacturing: for a manufacturer (provider) standardisation means efficiencies and lower costs, but for a customer (user) it may mean the product in question doesn't completely satisfy their needs. Technology has helped to resolve this tension by enabling mass-customisation.

Furthermore, whilst much of the interest in smart and intelligent buildings has focused on building systems, there has been less attention given to the spaces inside those buildings. Aside from technologies such as meeting room booking systems, and the devices people carry around with them, many offices are still comparatively low-tech environments.

Most office workers probably have access to more smart technologies in their homes than they do in their company's workspaces. Clearly there are lots of reasons why this is the case, not least the fact that most office spaces tend to be shared spaces, which means that it can be more difficult to provide individuals with more personalised control.

For instance, being able to control window blinds, heating and lighting from a mobile phone is all good and well at home, but in a traditional open plan office this is likely to create tensions between colleagues. So one can see why in these cases letting a BMS control these systems makes more sense, particularly when dated mechanical, electrical and ventilation systems do not cope well with local and variable needs.

Whilst acknowledging these constraints, the shift to more hybrid working will mean that many organisations begin to rethink what their offices are for and what types of workspaces they need to provide for their employees. This, in turn, will be an opportunity to rethink what technology needs to be in these spaces in order to help their employees to be as productive as possible.



ENHANCING WORKING EXPERIENCES

One way in which technology will help employees be more productive is by providing them with a more seamless working experience. As more people work in a more hybrid way, when they do come into the office, they will want to ensure that it's as productive and welcoming an experience as possible. They won't want to waste time searching for a desk or a place to store their belongings.

Let's use the example of Alex to bring this to life. Alex works for an insurance company and spends her time working either in the office, at home or at client offices. She tends to come into one of the company's offices a couple of days per week, but the days and office vary depending on the activities she is doing and who she is doing them with. She doesn't have an assigned desk because she's working in a hybrid way.

Alex decides that she needs to travel into her local office tomorrow morning to meet with two key clients, so she's booked a meeting room for them and a charging point for her electric car, using an app on her smartphone. At the same time, she's registered the 'VIP' status of her visitors with reception so that the front of house team are automatically notified about who will be arriving and the level of hospitality she's going to need for the room.

In the same app, Alex also booked a desk to work from for a couple of hours before the meeting, so that she can review her slide deck. The app helped her to book a desk near to her colleagues, so she can also catch up with friends she hasn't seen face to face for a few days.

When she arrives at the office, smart signage (triggered by number plate recognition) directs Alex to her designated charging point, then automatically notifies reception staff of her arrival. The same thing will happen when her clients arrive, and she'll get a notification via her app too. She drops her belongings in a smart locker so she can move around the workspace more easily, and uses the app on her phone to find the desk she had booked the day before.

The technologies already exist to enable experiences like Alex's described above and, if used together, they provide the foundation for mass customisation of corporate workspaces. The challenge for FM and workplace providers is ensuring that these systems are user-friendly and intuitive, work in a joined-up way, and complement rather than contradict (or complicate) the existing technology people use.

Using technology to create a more seamless working experience can also play a role in helping to make corporate workspaces appealing and attractive places to be – an idea we discussed in more detail in the previous guidance note on optimising workspaces. Leadership teams who want their employees to come into the office, without having to ask them to, will have to make it easy for them to do so.

Another way that technology can help employees to be more productive is by enabling more effective interaction within corporate workspaces. If, as most employee surveys and industry commentators are suggesting, offices will become more of a place for collaboration and social interaction, then FM and workplace providers need to consider how technology can help this.

One obvious way is by providing the right digital technologies within collaboration spaces, such as visualisation and ideation tools that are easy to access and use. But it could also be about making it easier for colleagues to find each other within corporate workspaces, for instance through the use of apps that allow individuals to broadcast their whereabouts to colleagues who might want to see them.



IMPROVING WORKSPACE MANAGEMENT

As well as providing better employee and visitor experiences, the types of technologies described above will also enable FM and workplace professionals to manage their workspaces more efficiently and effectively, because they will have better insights into who is using them, when they are using them and for what purpose.

Data from space booking apps, wi-fi access points, sensors and other IoT systems offer the potential to transform how corporate workspaces are managed, for instance by:

- Predicting demand for particular spaces or work settings at different points in time, so that staffing levels and building systems can be tailored accordingly
- Making it easier to collect and analyse real-time feedback on peoples' experiences, so that this feedback can be acted upon more quickly
- Providing more self-service options to employees and visitors, thereby reducing the time for requests to be acted upon and reduce the need for input from FM staff
- Tailoring cleaning regimes to reflect how frequently spaces have been used, so that resources are focused where they are most needed

However, deploying these types of technologies needs to be done ethically and with care, because they can prompt concerns about 'big brother' and employee surveillance.

For example, in the past some organisations have made the mistake of installing desk sensors without informing or consulting with their employees to explain the reasons why beforehand. Although doubtless done with the best of intentions, the result was pushback from employees and high-profile (and unwanted) newspaper headlines⁸.

Cases such as these underline the fact that, as with any other type of workplace change or intervention, deploying new workplace technologies needs to be carefully thought through, with employees being engaged along the way. Failure to do this may mean the technology in question is met with resistance, even if the organisation and individual employees would ultimately benefit from using it.



ACTIVITY

Pause and think about your own organisation's (or client organisation's) use of technology in its offices:

- how does your organisation (or client organisation) tend to approach the deployment of new workplace technologies?
- how are employees engaged in these deployments?
- how successful do these deployments tend to be?
- how could your organisation (or client organisation) approach these

deployments differently and what role could you and your team play in that?	

CASE STUDY

While a wide range of solutions are available, the starting point should never be technology for the sake of technology. Any solution will only prove successful if it is relevant and widely adopted by people to support their processes, in their workplace. This is why choosing the right technology partner is frequently more important than the technology itself. In this case study, the purpose of the technology was to balance workspace efficiency with employee effectiveness.

The business impact has been:

- A modernised infrastructure and digitised workplace
- An agile and mobile ethos in space management
- Increased employee satisfaction and productivity
- A secure and scalable cloud-based system
- Better insights into how and when meeting rooms are used

Vodafone

With its London office accommodating 1,600 people, Vodafone was struggling with capacity and looking for a better way to manage space more effectively. Staff relied on calendars and personal assistants to book meeting rooms, which were often double booked, causing frustration for employees. They were looking for a cloud-based system that could be easily updated, providing them with data on how the workplace and its meeting spaces were being used. The system needed a mobile-first focus, to support Vodafone's goal of enabling its employees to work more flexibly.

By incorporating meeting room booking software, Vodafone can now manage reservations from one tool, which integrates with their existing MS Outlook system. Vodafone's whole ethos is around being mobile and agile, so having an app which allows employees to book meeting rooms on the move makes flexible working much simpler. Meeting room screens have been installed outside each meeting room, allowing everyone to see the availability and capacity of each space. These 150 screens reinforce the behaviour that is so important to Vodafone – making sure meeting rooms are only used when needed, rather than as a private office.

"We now use our mobile phone, and our devices, to book a meeting room. Everything about it is much smoother."

Edward Large, Group Property Strategy Manager, Vodafone



To read the full case study and others visit: www.ricoh-europe.com/business-services/case-studies/

3. Away from the office

There's no doubt that digital technologies and tools have played a critical and, in some cases, transformative role in the working lives of many people and organisations over the last year. They have allowed millions of people around the world to continue working and collaborating effectively, despite being geographically dispersed from their colleagues.

To appreciate the role that digital technologies have played over the last year, one only has to imagine what would have happened if the events of 2020 had occurred twenty years ago or even a decade ago. Some organisations would have coped in these circumstances, but many would have lacked the mobile technology to work away from their corporate workspaces and/or relied on telephones and email to get by.

Collaboration and sharing of information would have been a challenge for many organisations and impossible for others. This would not only have had a negative impact on the bottom line of those organisations, but also on their organisational cultures, for instance by exacerbating departmental divisions and 'silo working'.

Virtual whiteboard and ideation tools have become increasingly popular over the last year, as teams have tried to find new ways to do the things they would normally do together in the same physical setting, such as innovation or problem-solving workshops⁹. These tools have proven to be a workable substitute for face-to-face collaboration and in some ways can even be an improvement, for instance by allowing quieter and more introverted people to get their views across in a way they might not do when interacting face-to-face.

As well as helping to keep large parts of the economy moving, the widespread use of digital technologies and collaboration tools has enabled many people to see that they can work differently. This has helped to challenge perceptions of where and when work can take place – confirmation and/or affirmation for some, but a genuine surprise for others! Some organisations have even adopted a 'virtual first' approach to work, whereby remote working (away from the office) will be the default position for most employees¹⁰.

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NEW DIGITAL COLLABORATION TOOLS

While existing digital collaboration tools have been beneficial in many ways, it's easy to foresee how the shift towards more widespread hybrid working will further stimulate technological innovation and the development of new digital technologies to enable this to occur even more effectively and seamlessly.

Some innovations in workplace technology might be deceptively simple and represent an evolution of the social media technologies many people use in their personal lives. For instance, a number of organisations have begun promoting video-messaging as an alternative to synchronous video calls or asynchronous emails and instant messaging.

Video-messaging technologies, or video explainers, involves individuals recording a video message and then sending it to colleagues who can watch when it suits them. Video messages can be useful if you are trying to explain complex thoughts or ideas that are difficult (or time-consuming) to articulate in an email or instant message.

Let's use another example to bring this to life.
Louise and her team are a pivotal data analytics function that support the digital and marketing divisions of a national telecommunications provider. They work in an agile way with their supply chain to deploy a bespoke analytics platform into the business, and record regular weekly updates that key stakeholders in both divisions can then access on demand to keep abreast of developments. Their video-messaging means they can do this themselves, from their own work-settings, comfortably, cost-effectively and without encroaching on diaries and creating yet more online meetings.

Time will tell whether video-messaging catches on in the same way that email, instant messaging and video-conferencing have. As with any other communication or collaboration tool, its success, or otherwise, will depend on the network effect: that is to say, the more people (and organisations) that begin using a particular tool, the more likely it is that other people (and organisations) will also adopt it.

Video-explainers are a relatively simple example of how people might collaborate differently, but other innovations are likely to be more significant. Perhaps the most obvious example is virtual reality (VR), a technology that has been around for decades but has improved dramatically in recent years due to improvements in computing power, meaning the cost of a VR headset is now less than that of laptop or tablet computer.

A number of technology start-ups have already developed VR platforms that enable hybrid teams to collaborate together in immersive virtual workspaces¹¹. Facebook (the owner of a leading VR company, Oculus) recently announced that it was developing 'mixed reality' platforms that will provide people with, amongst other things, tools such as virtual monitors and keyboards, thereby blurring (or 'augmenting') the line between their physical and virtual worlds¹².

Immersive technologies such as VR might initially seem a bit gimmicky – some readers might remember the rise of Second Life in the early 2000s, where the benefits of VR immersion and engagement were similarly proposed – but they may help organisations to address a potential problem that could arise with the widespread adoption of hybrid working: the risk that people working remotely will feel like they are at a disadvantage when interacting with colleagues who are working in the corporate office.

This feeling will resonate to anyone who has ever been working remotely and dialled into a conference call in which most participants are together in an office – it can be difficult to get a word in and people can forget that you are there. VR meetings could help to overcome these problems by providing hybrid workers with what Facebook describes as "remote presence."

VR can therefore be seen as a more immersive extension of existing video-conferencing technologies and digital collaboration tools, which have already brought many benefits – for instance, in terms of saving time, money and CO_2 by not travelling to meetings. As work locations become truly hybrid and climate change more urgent, this can only become an increasingly important consideration.

OPTIMISING USE OF WORKPLACE TECHNOLOGIES

The process through which workplace technology is deployed in organisations is arguably as important as the technology itself. The deployment process plays a critical role in ensuring that technology:

- Delivers the benefits it was intended to deliver
- Reflects your organisation's overall strategy and not just your immediate needs
- Works in harmony with the rest of your business.

At Ricoh our recommended approach to helping organisations deploy new technologies is as follows:

- 1. Understand analyse your strategic plans, financial objectives and critical information processes to develop a deep understanding of your business and technical infrastructure, along with your goals.
- 2. Improve develop an actionable plan that focuses on enhancing the processes and infrastructure that are needed to achieve your overall objectives. You should also identify realistic metrics and the key performance indicators that you'll use to measure success.
- **3. Transform** implement the chosen solution and strategies to help your employees more easily adopt the changes. Monitor how your employees are responding to the new processes and workflows.



- **4. Govern** actively monitor the improvements you've implemented. Use management tools to measure the success of the new infrastructure or processes and report back about performance against the metrics you defined earlier in the project.
- 5. Optimise ensure that the solutions you've implemented remain fit for purpose as your organisation changes and grows by regularly revisiting the original reasons for deployment, assessing anything that has changed, and adjusting your technology provision accordingly.



4. Humanising technology

Some organisations are approaching hybrid working by implementing company-wide rules and routines; for instance that staff should come into the office on particular days of the week. This might make sense from a planning and management point of view, but it assumes that people's work schedules are routine and unchanging, which isn't the case for many knowledge workers. This approach to hybrid working might therefore be too inflexible.

An alternative approach is to leave it to individuals to decide where and when they will work. For organisations this creates the challenge of managing employee demand for workspace, which may become a scarcer resource if they reduce their office footprint. As we've already discussed in a previous guidance note, dynamic workspace management and booking tools will help organisations to resolve this problem.

For many individual employees, having choice over where and when they work might seem really appealing, but it also brings a greater 'cognitive load': in other words, it takes time and mental effort to work out where and when you are going to work on any given day or in any given week. This is particularly the case if your work involves a high degree of 'task variety'.

You can probably relate to this yourself, for example when you're trying to plan the week ahead, which may involve arranging a variety of phone or video calls, focused work, face-to-face meetings, out of town meetings, personal commitments and so on. A significant amount of your time and mental effort can be spent trying to co-ordinate such activities.

Indeed, one reason why senior managers in organisations have traditionally had personal assistants is because co-ordinating such activities isn't seen as productive use of their time. It's also why companywide rules and routines, like the one described above, can seem appealing to individuals too, despite their downsides: it means there's one less thing to have to think about, because the decision has already been made for you.

Much of the debate around flexible working has focused on one interpersonal dimension: empowerment and trust. It's largely ignored another intrapersonal dimension: cognitive load and mental effort. You might be empowered to make decisions about where and when to work, but you then have to make those decisions – and on an ongoing basis, juggling competing demands and weighing up different options and permutations.

Technology has a role to play in helping to reduce this cognitive load. For instance, imagine if we had technology that could:

- Scan our emails and other communications, and work out what tasks we need to do by when and with whom
- Know which tasks we tend to do most effectively at which times of the day or on which day of the week
- Check our calendars and those of our colleagues to work out the optimum way to schedule our activities
- Automatically arrange calendar invitations with colleagues and book desks and/or meeting rooms in the office, when required
- Arrange our travel, for instance by booking and paying for car parking and/or train tickets
- Inform us, at the right time, of where we need to be, by when, and for what purpose and perhaps even make suggestions for what we should wear!

These examples might seem far-fetched, but the technology to enable this already exists through voice-activated virtual assistants such as Microsoft's Cortana, Apple's Siri and Amazon's Alexa. Many of us already use these technologies in our day to day lives, to varying degrees.

The only thing preventing such examples from achieving more widespread acceptance is individuals and organisations allowing the Al-based systems that power them to have access to our personal information and then trusting them to make the right decisions on our behalf. In other words, the barrier to technology helping us co-ordinate our work is primarily social, not technical.



ACTIVITY

Pause and think about the above example:

- would you be comfortable letting a computer-based virtual assistant make decisions on your behalf, in the way we described above?
- why is that?

•	what, if anything, would need to happen to make you feel more
	comfortable about this approach to enhancing your productivity?

comfortable about this approach to enhancing your productivity?	

THE ROLE OF DIGITAL LITERACY

Viewing technology from a social, as well as a technical, perspective allows us to see that most technologies are not, in themselves, inherently good or bad. Whether they are 'good' or 'bad' depends on how they are used or misused. Email is perhaps the best example of this, because it's been around for decades and it's one we're all familiar with.

Over the years email has been criticised time and again for creating more problems than it solves¹³. However, more often than not it's the way that people use email that causes problems, not the technology itself. Common examples of poor practice include:

- Sending unnecessary emails or copying in people who don't need to be copied in, thereby overloading peoples' inboxes
- Feeling the need to reply immediately to emails that don't require an immediate response (and might even benefit from some thought and reflection)
- Using email in situations where a verbal conversation would be more appropriate, which can lead to misunderstanding and long-email chains

One could argue, quite rightly, that there are fundamental design features of email platforms that enable (or encourage) these behaviours; but if we think back to what email replaced - letters, memos and fax machines - then it's easy to make the case that email represents significant progress despite any downsides that come with the way people use it.

Instant-messaging tools, such as Slack and Yammer, have been developed as alternatives to sending emails within teams and organisations. These conversation-based applications are often marketed as a way of overcoming the problems associated with email – a way for workers to save time, avoid unwanted distractions and be more productive – but they are as open to being 'misused' as email¹⁴.

There's a risk of seeing technology as a 'silver bullet' that will by itself solve difficult and sometimes deep-seated organisational and cultural problems, such as a lack of trust or silo working. Indeed, if not used appropriately, technology may even reinforce or exacerbate such problems.

For instance, if presenteeism was a problem within a team or organisation prior to 2020, then working remotely using technology won't, by itself, eradicate it. Indeed, it may even make it worse and harder to spot, by manifesting itself in the form of digital presenteeism and an increased sense of guilt amongst employees; this may result in them working longer hours and being 'always on', which in turn may have a negative impact on their wellbeing.

A key learning point from the last year is that rolling out new technology solutions is in many respects the 'easy part'. It may take time and cost money, but the harder part is ensuring that people's behaviours are in tune with their deployment so that:

- Employees know how to get the best out of their new technology
- It doesn't create unintended and undesirable consequences
- The net impact of the technology is positive rather than negative.

In many organisations, over the last year 'new' technologies have been deployed rapidly and at very short notice, meaning employees have often lacked the training and knowledge to get the best out of the technologies.

Some organisations have recognised this and implemented formal digital literacy programmes and/or have issued guidance to help their employees to get more from particular technologies and avoid developing bad habits when working remotely¹⁵. Such programmes are a great example of why workplace should be viewed holistically and from a social as well as a purely technical perspective.

The importance of digital literacy is something we have discussed elsewhere in relation to the FM and workplace profession¹⁶. However, the last year has highlighted how important digital literacy is to enabling people to work in a hybrid way. Knowing the limitations of particular technologies and when and where they are best used is a key part of being more digital literate.

'ZOOM FATIGUE' AS AN EXAMPLE OF A SOCIAL-TECHNICAL PROBLEM

2020 saw the appearance of a new phrase in the English language: 'Zoom fatigue'. The phrase describes ".. the tiredness, anxiety, or worry resulting from overusing these virtual platforms" such as Zoom (a widely used video conferencing platform).

Zoom fatigue has been discussed at length in the media and has even been used to make the case for why people should be returning to corporate offices, rather than working at home. However, there's a risk of drawing the wrong conclusions about video-conferencing technology, based on the experiences of the last year.

One reason is that the experiences of the last year were exceptional, to say the least. Enforced homeworking and the inability to meet with colleagues face to face has meant that millions of office workers having had no choice but to spend large parts of their working day on video calls. This is unlikely to be the case going forward, as restrictions loosen and people spend more time away from their homes.

A second reason is that in many organisations, prior to 2020, video calls were still not widely used for work purposes. Most office workers were more likely to have made video calls in their personal lives, than they would have for work. So it would be unfair to expect them to intuitively know how to get the best out of that particular technology in a work context.

Ultimately, it's often the way that video-conferencing tools are used that explains the problems people associate with Zoom fatigue. For instance, we've all probably experienced overly long video calls without breaks or back-to-back video calls that mean you don't have time to rest your eyes and take a break from your computer.

A recent paper by researchers at Stanford University in the United States explored Zoom fatigue in more detail¹⁸. The paper explains how some of the issues people have experienced are a result of the way the technology is designed. For instance, users of Zoom tend to:

- Have excessive amounts of up-close eye contact and see peoples' faces at an unnatural size, both of which can cause discomfort
- See themselves on screen for extended periods of time - what the researchers call 'an all day mirror' - which can be stressful and tiring

- Experience higher cognitive loads than they would in a face-to-face meeting, because they have to work harder to send and make sense of non-verbal signals, such as facial expressions
- Move around less than they might do in a faceto-face meeting or even on a phone call, because people feel obliged to stay in their webcam's field of view.

However, the research also suggests that once we're aware of these problems, there are practical things that users of Zoom (and other video-conferencing platforms) can do to counteract them, including¹⁹:

- Dropping out of full screen mode to reduce the size of peoples' faces
- Using a keyboard to increase the amount of personal space between you and your monitor
- Hiding the image of yourself once the call is up and running, so that it's not constantly in view
- Periodically switching off your webcam and turning away from the screen, so as to have a break from sending and receiving non-verbal signals.

These insights are useful because they highlight the fact that Zoom fatigue is a socio-technical problem, not just a technical problem. They also underline why it's important to be mindful of how we're using digital technologies in our work and how we can use them to best effect.

Other good practice techniques people can make use of in their day-to-day work include:

- Blocking out time for lunch and breaks every day in their calendars to prevent back-to-back calls dominating their days
- Blocking time out in their calendars for reading, planning, writing and staying off video calls
- Making time to step out into the garden or walk round the block, which can often be great thinking time
- Selecting or agreeing one day of the week to limit or avoid video calls and get other work done.

Some of these techniques may work for some people and not others. But the key thing is to try them and see if they work for you, your team, your business and your customers.



5. What should I do next?

We recommend that you:

- give this guidance note to colleagues (including clients and senior managers) who you think might be interested in it. Make sure to have a follow-up conversation about it and what it means for your organisation's or your client organisation's approach to technology in the workplace
- complete the self-assessment on page 23 for your own organisation or your client's organisation. This will give you a high-level indication of where your organisation (or client) stands in relation to its workplace technology, and the opportunities and challenges this may present. Use the results of your assessment as a basis for a follow-up conversation with you colleagues and/or client
- read the earlier guidance notes in the series, but particularly the one on *Leading Successful Workplace Change*²⁰
- work with your counterparts in IT, HR and Communciations (and perhaps even Finance) to develop a unified approach to the future of workplace in your organisation or client organisation. Encourage them to complete the self-assessments in these guidance notes and then come together to discuss the findings.

LEARNING MORE ABOUT THE FUTURE OF WORKPLACE

There are a number of ways you can learn more about this topic:

- IWFM's 'Navigating Turbulent Times' webinar series, which can be found at: www.iwfm.org.uk/coronavirus-resources/ webinar-series-navigating-turbulent-times.html
- Ricoh's Work Together, Anywhere webinar hub, which can be accessed at: tools.ricoh.co.uk/work-together-anywherewebinar-series
- Ricoh's Conscious Workplace report, which can be accessed at: www.ricoh.co.uk/news-events/ricoh-insights/ conscious-workplace-report/index.html
- the other workplace guidance notes in this series, which are available to download at: www.iwfm.org.uk/insight/research-partnerships/ creating-better-workplaces.html

We have also partnered with workplace specialists 3edges to provide workplace and leadership CPD courses which explore many of the issues discussed in this guidance note. These courses can be attended individually or delivered for groups 'in-company'.

Multi-course discounts are available. To find out more about our courses or to book a place, visit: www.iwfm.org.uk/professional-development/academy

The ideas and approaches in this guidance note also form part of our 'Level 6 Diploma in Workplace Leadership, Insight and Change'. This is the first workplace qualification of its kind. If you would like to learn more about the Diploma, please contact: qualifications@iwfm.org.uk

SIMPLIFYING TECHNOLOGY - SELF-ASSESSMENT

This thinking tool has been designed to help you reflect on the degree to which your organisation, or client, is thinking about workplace technology. It will help you to identify whether enough attention is being given to this issue.

As with any self-assessment, this tool requires you to reflect on your own situation critically and honestly. Remember, sometimes honest truths can be uncomfortable!

You might find it helpful to complete this selfassessment individually within your team and then come together to discuss your responses.

Once you've put a mark on each scale, draw a line

down through the marks so that you can see the

profile of your responses.

To complete the self-assessment, read each statement and pick a point on the corresponding scale that feels about right for you. Try not to overthink the statements!

Let's take statement 7 as an example. If you think that your organisation (or your client) deploys new workplace technologies in a joined-up way, then pick a point somewhere to the right hand-side of the scale.

Then take stock of the overall picture and ask yourself:

• are we giving enough attention to technology

• what should we be doing that we aren't doing?

who do I need to talk to about this?

in our workplace?

Demand Strongly disagree Strongly agree We use technology to provide employees with a seamless experience in our office(s) 2 We engage employees in decisions about new workplace technologies 3 We consider the ethical implications of deploying new workplace technologies 4 Employees have the technologies they need to work effectively away from the office 5 Employees are provided with the right IT support, wherever they are working 6 We are willing to try new technologies, to see if they help improve how our people work 7 Our workplace technologies are deployed in a joined-up way 8 We provide employees with enough guidance on how to get the best out of technology 9 We use technology to help us improve how we manage our workplace 10 Employees know how to get the best out of the technologies they are provided with

References

- McKinsey (2020) How COVID-19 has pushed companies over the technology tipping point and transformed business forever. Available at: www.mckinsey.com/business-functions/strategyand-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technologytipping-point-and-transformed-business-forever#
- ² Pandey, N., and Pal, A. (2020). Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice. *International Journal of Information Management*, 55, 102171.
- ³ Pinder, J. and Ellison, I. (2021) *Optimising workspaces*. IWFM guidance note available at: www.iwfm.org.uk/resource/optimising-workspaces.html
- ⁴ For example, see Eley, J. (1986), "Intelligent buildings", *Facilities*, Vol. 4 No. 4, pp. 4-11.
- ⁵ Royal Academy of Engineering (2013) Smart buildings: people and performance. Available at: www.raeng.org.uk/publications/reports/raengsmart-buildings-people-and-performance
- ⁶ For instance, see Tamas, R., Ouf, M. M., and O'Brien, W. (2020). A field study on the effect of building automation on perceived comfort and control in institutional buildings. *Architectural Science Review*, 63(1), 74-86.
- ⁷ For instance, see Lee, S. Y., and Brand, J. L. (2005). Effects of control over office workspace on perceptions of the work environment and work outcomes. *Journal of Environmental Psychology*, 25(3), 323-333.
- For example, see Quinn, B. and Jackson, J. (2016) Daily Telegraph to withdraw devices monitoring time at desk after criticism. The Guardian, 11 January. Available at: www.theguardian.com/media/2016/ jan/11/daily-telegraph-to-withdraw-devicesmonitoring-time-at-desk-after-criticism
- ⁹ For example Mural (www.mural.co) and Google's Jamboard application

- ¹⁰ Wired (2021) Why Dropbox's 'Virtual First' model could be the future of work. Available at: www.wired.co.uk/article/dropbox-virtual-first
- For example, see Spatial (https://spatial.io) and MeetinVR (www.meetinvr.com)
- Statt, N. (2020) Facebook teases a vision of remote work using augmented and virtual reality. The Verge. Available at: www.theverge. com/2020/5/21/21266945/facebook-ar-vr-remotework-oculus-passthrough-future-tech
- ¹³ Newport, C. (2019) *Was e-mail a mistake?* The New Yorker. Available at: www.newyorker.com/tech/annals-of-technology/was-e-mail-a-mistake
- For example, see Molla, R. (2019) The productivity pit: how Slack is ruining work. Vox. Available at: www.vox. com/recode/2019/5/1/18511575/productivity-slackgoogle-microsoft-facebook
- For example, see Dropbox's Virtual First Toolkit. Available at: https://blog.dropbox.com/collections/ virtual-first-toolkit
- Pinder, J. Ellison, I. and Williams, D. (2020) Bridging facilities management's digital divide. IWFM report available at: www.iwfm.org.uk/resource/partneringis-key-to-bridging-fm-s-digital-divide-say-iwfm-andmicrosoft.html
- www.psychologytoday.com/us/blog/the-desk-the-mental-health-lawyer/202005/virtual-platforms-are-helpful-tools-can-add-our-stress
- Bailenson, J. N. (2021). Nonverbal Overload: A Theoretical Argument for the Causes of Zoom Fatigue. Technology, Mind, and Behavior, 2(1). Available at: https://doi.org/10.1037/tmb0000030
- Standford News (2021) Stanford researchers identify four causes for 'Zoom fatigue' and their simple fixes. Available at: https://vhil.stanford.edu/mm/2021/02/ sn-zoom-fatigue.pdf
- ²⁰ Pinder, J. and Ellison, I. (2020) Leading successful workplace change. IWFM guidance note available at: www.iwfm.org.uk/resource/leading-successfulworkplace-change.html



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