If the Covid-19 pandemic is teaching industries anything, it is the importance of digital technology in our modern working environments. But with the global pandemic arriving quite suddenly, catching most of us off-guard, how prepared were we as businesses?

As many sites and businesses came to a complete halt, many organisations, large and small had to shift, in many case overnight, moving office based staff to working from home, where possible. Whilst some companies were already digitally prepared, with staff having laptops and remote access to VPN or cloud based document sharing, others have lagged behind or found challenges they weren’t prepared for.

The past few years have seen an increasing number of companies in the construction sector fail. It is reported that in 2019 a contractor entered into administration almost once every fortnight. As we prepare for a post pandemic world, the next couple of years will be more brutal still for those not agile enough to change.

However, in the face of great adversity, it is reassuring to see industries across the world are adapting to the challenge. The Covid-19 crisis has presented a huge health and economic threat to businesses, with restrictions and measures enforced by governments which have never been seen before during peacetime. Some businesses continued operations, by effectively making the switch to working from home where possible. Whilst working from home may seem a simple step, its implications are far-reaching, and as many across the industry believe, will be a turning point for the wider adoption of many digital processes across the construction industry.

In the words of Winston Churchill, let’s not let a good crisis go to waste.
Overview

Prior to the pandemic, data from a 2012-2016 study by the Office of National Statistics predicted half of the UK workforce would be working remotely by 2020. Although the irony is a little uncanny, it is a fact that working from home is gaining in momentum and will change the way we work for the better. In light of the Covid-19 crisis, it is going some way to lighten the burden of this virus, as people can maintain a degree of normality in quite abnormal circumstances.

The key driver which is making working from home a reality is digital technology. Without it, things would be difficult.

Whether it’s Teams or Zoom, online conference calling has kept the country connected. Businesses, students, even MPs have been keeping in touch and working remotely. Keeping your teams engaged has proved an unexpected challenge. Ensuring colleagues are motivated, and managing their time is something many businesses did not plan for in their crisis management scenarios.

As we pass 100 days of lockdown, and sites and businesses have begun to re-open, what lessons can we take from the experience? Do you need to move more of your technologies to the cloud rather than relying on VPN or office access? Are staff maintaining business security protocols when they are sharing information from home or do you need to invest in more secure solution?

Respondents to our survey prove they are comfortable with the use of digital technologies but feel that their business need to change to support them or re-allocate resources to support them and invest more in training the workforce.

It’s also provided business with an opportunity to discover what digital advantages will be of benefit to them in the future. Many are considering if they need to fully re-open offices or are able to send less people on site. Use of common data environments provide a secure cloud based way of managing and sharing information, models and data, whilst virtual reality and drones and photogrammetry can be used to share site updates.

As businesses review aspects of their service and operations, the most agile will survive and thrive in the new normal.
Change across the industry

It has been proclaimed by many that the COVID crisis is the kickstart the industry needs to improve processes and technology. However other factors are converging. Businesses and clients are beginning to see that one of the biggest benefits of technology isn’t simply in the short-term cost cutting, but longer term benefits over the whole asset lifecycle driven by greater insights and better decision making.

Consultants McKinsey recently listed nine shifts that would radically change construction ranging from a growing need for consolidation across the industry, productization and specialisation of services, and sustainability all driving investments in innovation and technology.

It’s been well documented that the fragmented nature of construction is one of the main stumbling blocks for change, and the slow uptake of off-site manufacturing due to the association with mass production, unsuited to the variances of design-led buildings. Now though, the transformation of traditional manufacturing combined with the latest smart technology essentially allow efficient production of customised pieces through off-site manufacturing, that are delivered quickly and efficiently.

The expansion of Heathrow Airport is one such pioneering example where Heathrow is aiming to use four off-site construction centres around the country to support it’s expansion programme, allowing job creation to be spread across regions rather than in relation to the project. The hubs might also benefit other major infrastructure projects, sharing skills and resources, bringing hope that technology is finally bringing a more joined up thinking from clients.

The rapid response of businesses to the lockdown and general successful move of teams from office and site based working may prove the catalyst for those businesses who have been reluctant to embrace digital technology and open the door to greater acceptance of change.
Findings from BC’s and Bentley Systems’ ‘Workforce Management Survey’ give insight into the impact Covid-19 is having on workforces across the world including in the UK, India, and Ireland.

Participants were employed across various levels in a wide variety of sectors within the built environment such as architecture, owner operators and construction.

**Feedback from Participants**

- We don’t always need a physical presence in the offices
- There’s a big cultural change to consider
- It has forced us to look at different ways of working
- Cashflow has become even more important
- We’re implementing online site visits
- All site operations were suspended
- Working from home has forced a different focus
- More focus on health and safety and business continuity
- We changed our priorities and the resource allocated to various functions

**Breakdown of Participants**

- Contractors and Civil Engineers: 29%
- Professional Services, Consultants and Software: 26%
- Infrastructure and Utilities: 24%
- Public Sector and Education: 13%
- Architecture and Design: 8%
The new normal

For many workers, working from home has become part of this ‘new normal’ landscape. It is listed as one of the key operational changes in this survey. Participants also noted other shifts such as reduced or cancelled site time due to social distancing, furloughed staff, changes to customer delivery, and less social activity between workers.

Participants appeared mostly positive (60%) as to whether they could go about their job as effectively from home, with just over half (51%) feeling reporting that they were able to perform their duties with minimal disruption.

From the statistics, home working is proving to be a resourceful and positive solution to maintain business operation in the coronavirus climate; so much so that once the current restrictions have been lifted, home working would cause minor impact to business performance for those businesses now considering the benefits of reduced operational costs.

IMPROVE EFFICIENCY AND MINIMIZE DISRUPTION

- Drive strategy from CIO down and ensure people have everything they need
- Use any downtime to review technology and business operations
- VPN access may be unreliable for some people, so ensure information and documents are accessible via secure cloud
- Make use of drones, VR or photogrammetry for site visits to reduce number of visitors
- Look how to re-allocate resources if cashflow is an issue

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Business preparation

Encouragingly, when it comes to the question of preparation, 75% of participants believed their business was agile when implementing remote working. It is also positive to note that the survey highlights that 64% of the participants felt their teams were collaborating very well. With digital technology both implemented and adopted quite successfully, it seems workers employed in the built environment were able to make a clear transition to remote working.

IMPROVE COLLABORATION

- Keep teams engaged and focused with short daily check-ins meeting or informal ‘huddles’
- Ensure staff have the right tools for their continued success
- Focus on smaller, actionable tasks to keep teams motivated
- Ensure any software is cloud-based so easier to access and upgrade
- Software should be user-friendly and that training and support is available if required
- Review your existing processes and decide if they could be replicated or improved digitally
Business interruptions

Despite workers reporting that they were able to execute their tasks effectively, 68% of participants responded that Covid-19 has negatively impacted their business, as many sites came to a standstill, with their colleagues furloughed or redundant, and businesses having to re-assess their priorities.

In terms of the coronavirus’s financial impact on businesses, results indicate that it is perhaps too early to detect its ramifications.

Sectors such as aviation, retail, travel and leisure have been the hardest hit, affecting commercial developments, whilst many infrastructure projects have continued or will benefit from extra government investment to support the economic recovery.

In terms of re-engineering information management processes, participants were divided. Yet, they did believe digital technology was helping with collaboration, with 67% of participants utilising a common data environment (CDE) to work with fellow staff members. The use of a CDE meant workers could access information securely; with 74% of participants highlighting that their information sharing would not compromise security and therefore performance, even though 52% also use a generic file sharing services such as Dropbox to collaborate.

Businesses were split as to whether they were making use of the lockdown to re-engineer their information management process, with only 46% confirming they were.

ENSURING CONTINUITY AND SECURITY

- Take this time to examine your digital strategy. If it’s already underway, what can you accelerate and what can you delay?
- Improving digital capabilities now will give you a competitive edge for the future
- Make it a priority for teams to upload information and share information to a central secure location such as a CDE
- Decide which metrics you can track to judge how successful working from home has been over the coming months - quality, productivity etc.
Getting back to business

Whilst it may be too early to detect the real impact of coronavirus on business operations, it is encouraging to note that over 39% of participants feel the current homeworking will have little impact as lockdown eases with the majority believing their business will be able to resume as usual in the near future.

The findings from BC and Bentley Systems’ ‘Workforce Management Survey’ clearly surmise that the successful preparation, implementation and adoption of digital technologies has enabled businesses to continue to work under abnormal circumstances.

Keeping your teams engaged has proved a unexpected challenge. Although online meeting services such as Teams or Zoom have proved invaluable, ensuring colleagues are motivated is a key challenge.

Businesses also need to address information security and ensure data is not compromised by teams sharing via email or unsecured generic solutions, or losing valuable information in the face of redundancies.

Furthermore, embracing digital technologies now such as VR / AR, drones, and digital twins, businesses that might have been facing skills shortage due to an aging workforce, will prove more attractive to tech-savvy millennials and Generation Z.

The COVID crisis has accelerated the shift in attitude towards technology within construction industry, with better connectivity driving a new way of working. It has also provided businesses with a unique opportunity to re-assess their operational requirements, demonstrating that they don’t need to be based within the office environment, or on the same site, opening the door for the industry to embrace the new normal methods of working.

References

2. https://www.ons.gov.uk

Many thanks to the 63 participants who responded to the BC Workforce Management Survey 2020