



A COVID-19 Virtual Ideation Experience

Team Topic and Number: The Autonomous Workplace Team 5

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Imagine the post-pandemic office. Organizations have the confidence to further develop flexible alternatives for the workplace, extending the office into our homes seamlessly.

Homeworking is the new standard. Office sizes have diminished; experiential space is the default. Before coming into the office, a check on availability of space is the norm.

Thermal sensors temperature check those entering the building. An embedded chip only allows building

access once this is accomplished. The elevator delivers the employee to the correct floor and permits entry knowing a reserved desk awaits. At per-selected times, hydrobots deliver their preferred choice of beverage . AI has made all of these decisions based on access to interlinked systems.

Welcome to the autonomous workplace.

It is obvious AI is impacting the human experience but how much, and will it impact our workplaces? To understand this, we look to the general trends in automation, taking the car industry, as an example.

Cars have been automated to the extent that when our key fobs come in proximity to the car, they not only open the door but also change the mirrors and seat position to our unique preferences. They drive us without putting the accelerator down and swerve the steering wheel as we cross lanes.

Comparing such automation demonstrates the lag we are experiencing in the workplace, where we see few frictionless offices. We have the foundations, including sensor lighting and swipe operation lifts but not to the same extent. As Forbes states, "Failing to incorporate automation soon will be like sleeping your way through digital transformation."

Looking forward to how progressive companies are using automation and, at one example, in particular from Australia, where a company has created a completely autonomous experience. This includes being given a specific parking space, having your locker ready for your scheduled gym session and your coffee waiting for you as you sit at your desk. It is possible and it is happening so will Covid-19 be the driving factor of this new workplace?

It is important to consider the trends happening at macroeconomic and microeconomic levels. Initially, we consider the macroeconomic convergences being seen due to the crisis:

- Corporate outsourcing - The crisis will most likely accelerate a trend that was already apparent as occupiers battle with reduced cash flow and an increase in capital required for implementing the future workplace. Service providers will acquire increased market share enabling them to invest further in technology and AI resulting in a more autonomous workplace.

- Resilience in Real Estate Investment: Real estate remains a 'safe' investment during these times. Investment in commercial real estate will accelerate the automation of buildings to reduce operating costs.

- Urbanization: The pandemic will prompt a rethink in urban design, increasing the imperative to develop truly scalable smart city solutions, focusing on public health and safety, and delivering greater investment in public infrastructure.

- Sustainability: A spotlight is already on corporate social responsibility. Through this, greater awareness of the fragility of our ecosystem. Reduced commuting, shared vehicles and overall reduction in mass consumption will have a positive impact on the environment.

- Technology: The mass adoption of remote-working technology through the pandemic will likely expedite automation, including an emphasis on robotics, AI, Big Data, and unmanned vehicles. We believe we will see accelerated steps being taken in the F&B sectors, who have already tried and tested autonomous vehicles. Drones and mini delivery vehicles in lieu of their human replacements will become more widespread.

- Centralization of capital planning activities: Given the uncertainty around the duration and depth of this crisis, management is now providing more centralized direction on property-level cash management, company-level balance-sheet decisions and credit lines; enabling central investment decisions which may impact automation long term.

These macroeconomic trends go hand-in-hand with the resulting microeconomic impacts which may

come about as a response to the current situation.

- Human experience: The shift in thinking from bringing people together to work in large corporate HQ's, collaboratively, on a daily basis, to working in isolation from their homes has changed. Opting instead to create social and collaborative regional hubs where automation through AI can establish the best times for individuals to work productively in isolation on projects and bring them together to 'share and tell' has been seen to increase productivity in some sectors already. Knowing when and where to create social and focused space will be critical in the development of corporate real-estate and where that sits regionally.
- Health & Safety: This has become critical and may drive a shift from open plan and agile working alongside a lower desk density with increased hygiene concerns and social distancing regulations. Improved air quality systems will become essential in office buildings, in both design and maintenance as well the utilization of microbial materials such as stainless steel and copper for surfaces. Automated door, taps and hygiene stations will be a necessity and an increase in cleaning frequency with a certification confirming these standards will be required.
- Social: Social interaction is hard to replicate online; the corridor meeting or the after-work pub conversation. These add value which is difficult to find in the virtual world. Better broadband and VR will go so far, but we cannot ignore the human behavioral aspect. Buildings will hold an important role, but the workplace which extends beyond the building also requires significant improvement as regular agile working becomes the norm for task-based workloads.
- Functional: Providing automated functionality for building and users. The infrastructure inside a building - heating, ventilation, Wi-Fi - will need to predict demand and adapt accordingly so workplaces are energy efficient whilst maintaining a safe, comfortable environment.
- Governance and data security: There is a certain amount of personal data that interconnected systems need to rely on and share. How secure will this be, who owns it, how is it governed and how are individuals' rights provided for?
- Privacy: It is the Big Brother question. The workforce feeling their every move is being watched, monitored and graded. This may be a stumbling block in our bid to achieve an autonomous workplace.

Some of these immediate macroeconomic changes to business practices will cement long term micro change in the way office-based businesses operate. Steve Krouskos of EY states that "a majority of companies were already planning major transformation before the pandemic hit". Once financial stability returns, it is thought that businesses will refocus their investment into technology and workplace transformation to "reshape and reinvent their business and create long-term value". Looking deeper into our move towards an autonomous workplace - what impact will this have on job retention? Akst (2013) speaks about 'automation anxiety'; a populace fearful that machines will replace their job. However, as Bowen mentions, 'technology eliminates jobs not work' (1996). This is crucial to how we better understand the issue at hand.

As Levy and Murane point out, 'not every task is codifiable' (2004). Progressions in one does not obviate the necessity of the other. In actuality, the complementarity of each to the other can be argued to produce higher productivity and raise earnings. As McKinsey states, there will be a skill shift as the need for technology, and social and emotional skills increase. This is supported by Anthony Walker, where he brings into focus how an enhancement of our human skills will lead to AI enhancing our professions rather than eliminating them. This is the concept of augmented humans, the combination of human and machine is more powerful than either on its own.

The COVID-19 pandemic will leave a trail of human and economic damage in its wake, but it may become the catalyst to accelerate changes in the workplace. The true extent of that change is still hard to gauge, however it is evident the situation has resulted in many professionals re-evaluating their

working practices. Yet the willingness of employers to implement such provisions is likely to be driven by macro-economic factors which will hinder short term investment into autonomous workplace technology and design. It is clear that in the short term, workplaces will need to accelerate change for new social distancing guidelines. Adherence to social distancing measures for the foreseeable future will encourage widespread adoption of autonomous workplace technology and strategy. Technology will play a large part in helping us to adapt to the 'new normal' with the introduction of contact-less technologies and automated processes aimed at reducing physical interaction.

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- Ultimately there is a great opportunity for the CRE industry to lead the world in human centric design of buildings, workplaces and services. The most innovative and agile businesses in the CRE industry, including owners, operators or service providers, will be able to expand into new business streams, and take advantage of the 'new normal' that will shape the workplace for the foreseeable future.