



# HACKATHON



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A **COVID-19** Virtual Ideation Experience

**Team Topic and Number:** The Autonomous Workplace – Team 7

**Team sponsor/chapter (if applicable):** N/A

**Team Lead:** Ian Foulds

**Team Members:**

Dimitar Ivanov	MBL	dimitar.viktorov@gmail.com
Martina Williams	CBRE	martina.williams@cbre.com
Bettina Roemerscheidt	OSA Architekten	br@osa-muenchen.de
Umut Ala	Volvo Group	umut.ala@volvo.com
Lucy Whife	Savills	lucy.whife@savills.com
Michael Robertson	JLL	michael.robertson2@eu.jll.com
Rachel Edwards	Lendlease	rachel.edwards@lendlease.com
Russell Kingston	Spacestor	russell.kingston88@yahoo.co.uk
Ian Foulds	Unispace	ian.foulds@unispace.com

**Input your submission below. Please remember that you have 1500 words to share your insights.**

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## What do we mean by the Autonomous Workplace?

In short, a workplace disrupted and reimagined using AI and IoT.

How real is that? Much more data and technology exist than most of our organisations are really leveraging, or even connecting.

But a few exemplar projects have realised the concept to a high degree.

Could one big outcome from the current global crisis be a significant actualisation of the autonomous workplace? There are many aspects to this. Some appear to be progress and some the elimination of jobs. So ethical conflicts may arise.

Administrative tasks may be disappearing into an app. Health and wellness may become easier to manage and dovetail with the workday using a combination of wearables, building occupation monitoring, the work canteen replenishment adapting dynamically and the coffee app's knowledge of your preferred arrival time and favourite brew.

Let us have a look at what a day in the life of someone working in an office would like with - post COVID – technologies.

### **The Day before**

- We will decide on what type of work we are doing on the next day – depending on this we chose to either work from home or to go to work
- We all have a fully set-up ergonomic WFH workspace which is a full part of the network of places we work in
- Decision making is supported by a smart watch system - During our sleep, system will scan our sleeping activity / vital functions and will recommend the structure of our day and number of rests based on the quality and length of sleep
- We are preparing ourselves – AI can help to support the availability/access to infrastructure and facilities
- This will be based on our previous choices and highest level of comfort and today's well-being
  - Any transport (bus, scooter, bike, car share) from the shared infrastructure, which was cleaned before the next use – avoiding peak hours, selecting quickest route to work,
  - Shower allocation at the office
  - Locker in the office at closest proximity
  - Coffee / snacks / lunch – at our preferred break time, synced up with our health and wellbeing
  - Building entry - pre-announce arrival for health check spot (no queues for COVID-19 testing)
  - Desk / room etc. – synced up with our meetings/calendar and optimized at proximity

### **The Morning**

- We will start the morning at home organizing our work schedule, attending group meetings distributing the tasks of our teams with the help of smart cloud-based collaborator.
- Work schedule adjusted to level of well-being:
  - Based on the health data from our smart watch the task assignment tool will modify the recommended volume of work

- Regular adjustment according to well-being: A software will track our face expressions and mood during work / our resting heartbeat and other vitals in order to suggest breaks and will collect this data in order to analyze when it is recommendable to take a day off to avoid burnout
- Health check:
  - Home-testing kit / temperature check. Log data with employer – check health status of colleagues and team-mates.

#### **Getting ready for the journey**

- A smart tracking system will recommend the best time to leave our home in order to avoid traffic / the risk of travelling with a lot of commuters
- Thanks to the weather app we are well informed about outside temperature

#### **On the way to work and going home**

- Transport within an optimized mobility network according to your personal wellbeing, schedule, calendar, peak hours
- Temperature test in all public transport for every individual

#### **Welcome to the building**

- Latest at reception we will have a smart desk allocation system which can recommend a space based on our specific tasks and the teams that we collaborate with
- No touch entry (voice control / facial recognition / QR code)
- Upload our health and wellbeing status for approval to enter
- Quick app access to view health and hygiene metrics of building today (e.g. occupancy numbers, air humidity levels, Co2, temperature, cleaning rotas in high traffic areas, etc.)
- When entering our office building, we will go through a scanning system analyzing your general health parameters
- We will have a face recognition system that will directly grant us access in the building, allocate our elevator which will bring us to our floor
- Going to our office once again we will have a face recognition system for the door of the office to be open

#### **Booking a workspace**

- We will identify relevant work setting using real-time building occupancy status to check availability
- Reserve an available workspace and note the expected hours of use (for prediction technology)
- Check the hygiene documentation relating to when associated surfaces were last cleaned
- Flag when work setting is no longer in use. It will be registered for immediate cleaning

#### **Meeting colleagues**

- 'Find my colleague' technology
- Book meetings through our personal device.
  - Option to host meeting outdoors, in bookable outdoor structures or walking routes.
  - All meeting will have the option of remote dial in. Better IT capabilities will support an increase in VC use. The experience will be boosted to make those in the room and working flexibly feel equally as involved / engaged.
- Push notifications suggest ideal locations for daily meetings and focus time (e.g. walking meetings, spaces with best air quality, access to daylight or an inspirational view).

### **Meeting visitors**

- Option to meet in the building or outdoors
- Curated entry experience with pre-booked access - seamless experience on entry, using technology such as QR codes, NFC and facial recognition to access spaces.
- A curated wayfinding experience that is accessed through the visitor's device, will allow organizations to orchestrate a brand aligned experience for the client

### **Coffee / Lunch and socializing**

- Pre-book coffee / lunch for pick up or sit in

### **Additional wellbeing 'nudges'**

- Loneliness reduced by identifying people with lower interaction levels and creating serendipitous meetings.
- Technologies such as facial recognition are already sophisticated enough to identify a person's mood and can be tuned to assume productivity levels. The 'nudge' will suggest activities, providing a link to access those activities through the relevant app.

### **Exiting the building**

- The office app will tell you when to leave the office, to avoid any congestion and make sure everyone can enter lifts/staircases and exit the building appropriately.
- I have registered what I have eaten, so my app tells me to fill up my bottle of water and take a piece of fruit from the restaurant with me.

### **Going home - At home**

- When arriving home, my app will ask me if I want to switch off all work applications and for how long, making sure my mind is at ease and focused on other things.

### **Conclusion**

In summary, there will be several behavioural and environmental challenges to implementing an automated workplace post Covid-19. Social distancing, now synonymous with Covid-19, will change our attitude to locations and design. Occupancy and utilisation will become increasingly important as occupiers strive to improve the efficiency of their space, in line with new standards and practices. A key challenge will be access in and out of buildings as employees pass from the public realm into a highly controlled office environment (with strict cleaning regimes and modified ventilation). Will this see an increase in on-site facilities as occupier try to limit the number of times this threshold needs to be crossed?

Employers must consider how their employees travel, including the travel they undertake as part of their job role. This will compound the need to enable remote working, with possible contractual changes meaning that large proportions of the workforce are required to work from home.

The 'knee jerk' reaction to the changing workplace, will see widescale investment in IoT sensors to monitor space usage and other environmental factors, however this may present little return on investment as data requires time to become accurate through aggregation.

Occupiers need to ensure that they have a robust technology strategy in place, aligned to the business, real estate and workplace strategies. Solutions that can utilise personal or company mobiles will help facilitate a 'contactless' and 'queue-free' workplace environment, while supporting remote

working. Demand for high specification meeting rooms to replace off-site meetings and Smart Building integration with an autonomous workplace will need wider scale adoption.

Occupiers must engage with technology professionals within their organisation and through partners to ensure that an evolving technology strategy is maintained. It is crucial for internal teams demands to be considered and for all technology related projects to align with the strategy.

Budgeting will be essential to ensure success in this changing environment as investment in a new workplace strategy, without the hardware and software to support it, will undoubtedly fail.

Covid-19 may be the driver that many organisations needed to kickstart their journey to an autonomous workplace.