



HACKATHON



CONNECT



SOLVE

PRESENT



A **COVID-19** Virtual Ideation Experience

Team Topic and Number: The Autonomous Workplace – Team 2

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

Team Lead: Adeline Liew

Team Members:

Abhay Varma, Manager Operations, Standard Chartered Bank

Adeline Liew, Director, Occupier Services, Asia Pacific, Knight Frank

Michael Leng, Associate Senior Interior Designer, Wingate Architects

Ming Lee Chua, Managing Director, Global Occupier Services, APAC, Cushman and Wakefield

Srikar AVR, Workplace Consultant, Global Strategic Business Unit, APAC, Herman Miller

Zsolt Parkanyi, Head of Workplace, Commercial Bank International

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

CoreNet has done extensive work already on the 6 major megatrends impacting real estate as we know it. These include:

- 1) Creating the next generation workplace

- 2) Focusing on workplace experience
- 3) Increasing pace of change
- 4) Harnessing the predictive elements of AI and Machine Learning
- 5) Growing demand for personalization and instant solutions
- 6) Changing CRE professional skill set requirements

Building on the trends outlined above the 'Autonomous workplace' will be the amalgamation of these factors addressing the *changing employee expectations and workplace consumption, harnessing the power of prescriptive and self-actionable data analytics* whilst *delivering organizational performance boost* through mass-personalization at marginal costs.

If you have worked through the COVID-19 pandemic, you will have witnessed the imaginary walls between your physical workplace and your home disappearing overnight. Whilst elements of your home and leisure layouts have crept into workplace design, the clear demarcation between home and work now have disappeared paving the way for personalized, consumption-based workplace experience.

The catalyst for change is data and how CRE professionals translate forward-looking data analytics, or prescriptive analytics, into executable solutions. Essentially, data-driven decision-making will enable synchronization between buildings, people, and teams as wearables and smart gadgets keep us continuously connected. The autonomous workplace will be based on human-centric design and will be a learning environment itself that improves team performance based on chronotypes while optimizing its own efficiency. Through prescriptive analytics, buildings will no longer only lower the light intensity when the sun is too bright but will make algorithm-based judgments in advance using meteorological reports and optimize building environments in anticipation of weather changes' expected impacts on HVAC, lighting, or water reservoirs. Buildings will be replaced as hardware-only to provide you the physical confines to team functions and will act as enablers of human efficacy catering to the individual/team needs to facilitate peak performance through seamless technology.

IoT and proptech solutions have gotten to the point where the office's metamorphosis into a multisensory conduit is just around the corner and the marginal costs of making it happen will be justified by the productivity gains companies will experience.

It is an exciting time to be in building operations and corporate real estate as the silo of traditional hard-services driven facilities management is being augmented by CRE professional's soft skills to elevate the employee experience. While the lynchpin is this autonomous workplace, the means of achieving this comes through a balanced workplace and human experience.

What will define the autonomous workplace experience?

The workplace as we know it has become a distant memory of the past, the global workplace has been forced to adapt quickly. Face to face conversations, social interactions, the way we move, and work have all shifted into a new paradigm. As we adapt to technology, technology will need to adapt to us and our environment.

Our five senses, touch, sight, sound, smell, and taste are crucial elements that will determine our mood, productivity and wellbeing. It is a known fact that lighting can have an enormous effect on our physical and mental wellbeing and air circulated at 16 degrees (61F) is known to help with thinking and knowledge-based work.

An era where clapping for lights to turn on is less a gimmick and more a reality. An environment that has been programmed to understand the optimal atmosphere based on smart AI, thermal, light sensors, motion and an evolved form of voice interfaces and chatbots are inevitable e.g. our natural surroundings could initiate background music to calm an individual down due to stress detected, this could be initiated from our devices with voice interfacing or the technology that has been integrated into our workspace.

Hygiene standards have drastically been recalibrated in the past 90 days. This has created a domino-effect for air quality and regular maintenance of buildings and spaces allowing the germaphobes to rise to the occasion. Experience is how an individual will determine how we function and operate; the workplace of tomorrow will require spaces that activate through human command at its simplest form. Imagine a touchdown space that is fully equipped with tools that enable individuals to move and talk naturally and have a personalized seamless experience.

The teleconference era has boomed overnight; to harness its impact is to understand the learning outcomes on using this platform. These side-effects may include, long term health implications that relate to ergonomics, energy levels and our physical states. A virtual meeting solution, in the form of stretched led screens integrated into the interior design, an illusion that plays on our perceptions, virtual screens that introduces a new ambiance to capture the mood of the employees are examples of what the future may look like. These solutions could aid us in personalized self-regulation throughout the day. Design firms have experimented with the idea of scattered cameras capturing the 3D visual of a person and their environment, a technology that is lifted from the automotive industry with self-driving vehicles.

WELL standards and human-driven design have been around for a while, ushering in this new era of workplace design manifests in the industry's obsession with the human experience. Putting the users at the epicenter of design, the only untapped elements, yet to be explored are the user's innate properties and how to synchronize them seamlessly with the workplace to stimulate, calm, and nurture throughout the day.

The human experience, what will drive this in the autonomous workplace setting?

Think beyond WELL standards for a moment and ponder about the customer journey you would see in retail strategy presentations. There has been a relatively small number of scientific approaches mapping out employee journeys in an office setting. Activity-based design tried to translate anecdotal human encounters and departmental adjacencies into a workplace experience but the human dimension was rarely explored.

Currently, the WELL Standards focus on various aspects of building such as air, water, light, thermal comfort and movement to name a few. Enhanced design standards will need to focus on a touchless office experience but organizations will differ in what touchless will mean for every one of them. Leveraging a

common toolkit will go far in standardizing these experiences and will also allow for industrial cross-pollination. Standards will need to understand the employee journeys in various settings, buildings, geographies, and cultures from the entry point in the office, seating, common areas to exit.

As a direct effect of COVID-19, benchmarks for social distancing will ensure new minimum norms in employee seating, cafeteria, meeting room, and recreational spaces yet the question remains how do we create a stimulating working environment.

The answer may lie in our industry's ability to create results-oriented harmony between individuals, teams, and workplaces. Companies may grapple with the current crisis, what that will mean for them in the short and medium-term, however, the long-term goal is to have a deeper, analytical understanding of human expectations.

Our body has been programmed to function much better at certain times of the day than others. Based on general morningness and eveningness preferences, people fall into different classifications, called "Chronotypes". Each chronotype functions best at different times of the day. According to psychologist and sleep specialist Dr. Michael Breus, there are 4 different Chronotypes, or a person's internal clock and rhythm characterized by animal characters: Dolphin - Lion - Bear - Wolf. Using chronotype segmentation may be the platform to design, optimize and balance team and building performances.

Understanding chronotypes can have manifold implications not only to workforce productivity but also to wider societal issues. Individuals who disrupt the diurnal rhythms of their circadian clock are affected with symptoms that include *chronobesity, impaired sleep, fatigue, psychological distress, digestive and cardiovascular problems, metabolic abnormalities, reproductive complications*.

AI technologies that study, understand and cater for optimal wellbeing, can seamlessly sync individuals and teams to their workspaces. Solutions such as the ones developed by Katabi labs can extract individual sleep cycles, human brain and breathing activity with non-intrusive tools which in the future can help build automated systems to deploy features that can trigger individuals with their peak performance time to accomplish activities at home and in their workplaces. AI-controlled lighting, surrounding temperature and noise levels can be automated at workstation levels that fit a specific chronotype.

The inflection point will be to what extent do we rely on AI and to what extent do we rely on CRE professionals to deliver a holistic workplace experience. We may see a rise in sleep and workplace wellness experts guiding employees to manage work-related stress levels.

One vital element of the autonomous workplace will be navigating the ethical boundaries of invasive vs. non-intrusive data usage, personalized insights, and behavioral patterns that differ from jurisdiction to jurisdiction. Taking a conservative development approach can ensure that we don't overcommit and over-leverage our workforce in the pursuit of game-changing insights. As a result of COVID-19, the world will require a process where synthesists, idealists, pragmatists, analysts and realists can work in synergy to create the ultimate autonomous workplace.

