THE AUTONOMOUS WORKPLACE

**TEAM NUMBER:** 3  
**TEAM LEADER:** Peter Sloan, AIA, IIDA, HOK  
**CORENET GLOBAL STAFF LIAISON:** Larry Bazrod, lbazrod@corenetglobal.org  
**SPONSOR:** HOK

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Company</th>
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<tbody>
<tr>
<td>Peter Sloan</td>
<td>Senior Principal, Director of Design, Interiors - HOK</td>
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<tr>
<td>Rhiannon Chow</td>
<td>Client Services - M Moser</td>
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<td>Luis R. Vina</td>
<td>Alliance Director - CBRE</td>
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<td>Tish Kruse</td>
<td>Senior Director of Strategy, Principal - IA Interior Architects</td>
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<td>John Florek</td>
<td>Principal - OnStream LLC</td>
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<td>Michelle Thurston</td>
<td>Educations Program Manager - American Society of Hematology</td>
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<tr>
<td>Brad Liebman</td>
<td>Principal, Director of Interiors - HOK</td>
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<td>Julie Schoenagel</td>
<td>Director of Real Estate &amp; Facility Services - Blue Cross Blue Shield of North Carolina</td>
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AUTONOMOUS WORKPLACE

It is more crucial than ever to leverage the power of technology to ensure health and safety in the workplace. Already, automation is filling some of the gaps. But when the risks of COVID-19 diminish, will automation have replaced some jobs for good? The answer is likely complicated and differs by industry. Will COVID-19 be the catalyst for more rapid development of the autonomous workplace, where we truly leverage the potential of artificial intelligence (AI), robotics and the internet of things (IoT)?

CHALLENGE: Develop forecasts and key recommendations for corporate real estate professionals that address these challenges and the role of technology going forward.
TEAM COLLABORATION PROCESS

A COVID-19 Virtual Ideation Experience
THE CRITICAL ROLE AND INFLUENCE OF TECHNOLOGY IN THE WORKPLACE IS BROKEN DOWN INTO THREE CATEGORIES:

1. THE ROLE OF DATA AND THE IoT IN THE AUTONOMOUS WORKPLACE
2. OPERATIONAL AUTONOMY WITHIN THE WORKPLACE
3. DESIGN AND TOOLS FOR THE AUTONOMOUS WORKPLACE

THE FOUR THEMES OF DESIGN CONSIDERATIONS:

1. FOCUS ON OPERATIONAL EFFECTIVENESS
2. ENABLE EMPLOYEE PRODUCTIVITY
3. ENSURE TEAM ENGAGEMENT
4. PROMOTE HEALTH AND WELLNESS
# Hackathon

## Operational Effectiveness

<table>
<thead>
<tr>
<th>Theme</th>
<th>Personal Data</th>
<th>Operational/Workplace Data</th>
<th>Physical Tool</th>
<th>Digital Tool</th>
<th>Design Element</th>
</tr>
</thead>
</table>
| Focus On Operational Effectiveness - Getting the right things done; how well you do those things | » Work from Home data  
» Personal Productivity Data  
» Commuting to work/mass transit data  
» Time at office data | » WFO data  
» Occupancy data  
» Space Utilization data | At the Office  
1) Sensors at the meeting room  
2) Way finding at the office / guest monitoring control  
At Home or Outside of Office  
1) Phones, laptops, Noise cancellation headsets | 1. Office App - “The Receptionist”  
2. One way traffic flows  
3. Employee reorientation program (set expectations, review new office protocols, technology enhancements)  
4. Formalization and company policy for remote work  
5. Equipment to support new technology |
Enable Employee Productivity - Getting things done; measure of outputs

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<tr>
<th>THEME</th>
<th>PERSONAL DATA</th>
<th>OPERATIONAL/WORKPLACE DATA</th>
<th>PHYSICAL TOOL</th>
<th>DIGITAL TOOL</th>
<th>DESIGN ELEMENT</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>» Supply chain data</td>
<td></td>
<td>1. Management App - Google Docs, Asana</td>
<td>1. Team productivity apps</td>
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<td></td>
<td>» Commuting data</td>
<td>» Conference room utilization data</td>
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<td>2. Collaboration between teams (See team engagement 1)</td>
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<tr>
<td></td>
<td>» Personal productivity data</td>
<td>» Space utilization data</td>
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<td>3. Securely accessing company files</td>
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<td></td>
<td>» Network Data (Sec/Cloud/High Speed)</td>
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<td>4. Ideas - what work environments that teams need</td>
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<td>5. Resources monitoring - transitioning from paper to digital</td>
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<td>6. Cloud based technology for collaboration Cyber security</td>
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<tr>
<td>Ensure Team Engagement</td>
<td>» Conference Room Use Data</td>
<td>» Software utilization data</td>
<td></td>
<td>1. App - “Social Tables Check-in”</td>
<td>1. Seamlessly stitch personnel working from home and in the office</td>
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<tr>
<td></td>
<td>» Mobility Data</td>
<td>» Heat mapping data</td>
<td></td>
<td>2. Communication, Teams, Slack</td>
<td>2. New seating arrangements</td>
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<td>» Innovation/Output Data</td>
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<td>3. Space that provides a sense of community while also sensitive to social distancing</td>
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<td>4. Balance between human connection and integration of tech</td>
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| Promote Health & Wellness | » Personal health data  
» Mindfulness data  
» Cognitive data | » BAS data  
» HVAC data  
» Energy  
» Management data  
» Cleaning data | » Ergonomics furniture and equipment, ie. keyboards, extra screens, laptop stand  
» Smart light  
» Safety compliance  
» Fitness watch, Fitbit | Apps – Welltok, Fitbit | 1. Reinforcement of social distancing  
2. Installation of protective barriers  
3. Multi-sensory design for all abled  
4. Temperature checks; thermal scanners (short term)  
5. Access to PPE (short term)  
6. Stepped up cleaning  
7. Hand sanitizer stands  
8. Limits on the elevators  
9. Keyless/touchless access to rooms/elevators  
10. Kinetic furniture (easily movable) seamless furniture with no spaces  
11. Air-circulation and filtering  
12. Smooth surfaces that are easier to clean  
13. Building materials that discourage the spread of germs  
14. Hands-free bathroom fixtures |
PERSONAL AND WORKPLACE DATA INFORMS DECISION MAKING AND FACILITATES AUTONOMY

KEY CONTRIBUTORS TO AN AUTONOMOUS WORKPLACE

HEALTH & WELL-BEING

EFFECTIVENESS

TEAM ENGAGEMENT

PRODUCTIVITY

BASED ON AN ORGANIZATIONAL CULTURE OF TRUST & EMPATHY

A COVID-19 Virtual Ideation Experience
“Based on an organizational culture of trust and empathy, the autonomous workplace will be an environment where technology allows each person to intuitively choreograph what works best for them.”