The Human/Technology Tension

The new solutions that address this emerging workplace reality
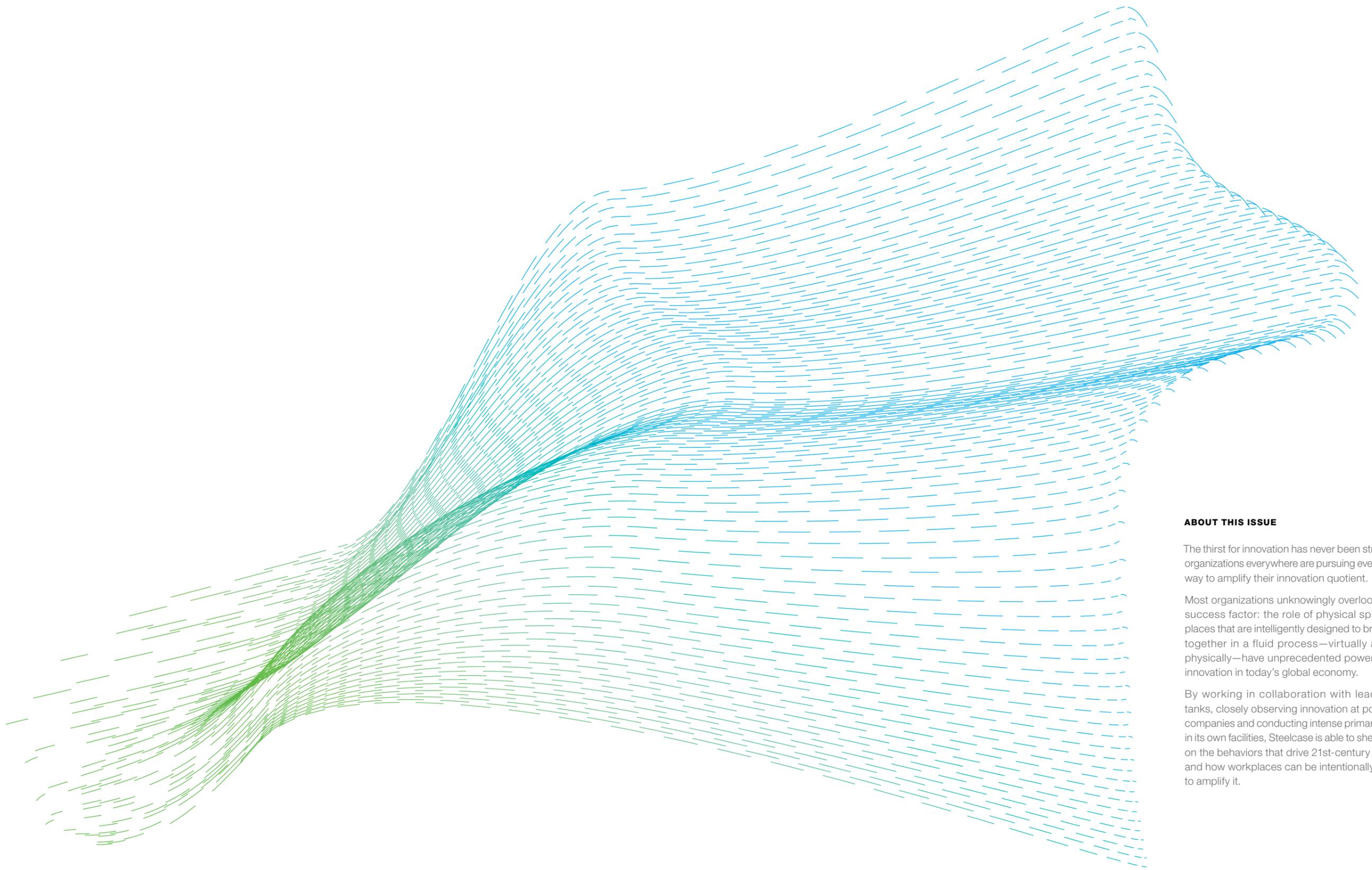
Resilient Real Estate:

Space as an adaptive system

360°

The New I.Q.

AMPLIFY YOUR INNOVATION QUOTIENT

ABOUT THIS ISSUE

The thirst for innovation has never been stronger and organizations everywhere are pursuing every possible way to amplify their innovation quotient.

Most organizations unknowingly overlook a crucial success factor: the role of physical space. Work-places that are intelligently designed to bring people together in a fluid process—virtually as well as physically—have unprecedented power to propel innovation in today's global economy.

By working in collaboration with leading think tanks, closely observing innovation at powerhouse companies and conducting intense primary research in its own facilities, Steelcase is able to shed new light on the behaviors that drive 21st-century innovation and how workplaces can be intentionally designed to amplify it.

Contents

360°

Exploring workplace research, insights and trends

360.steelcase.com

Perspectives

Meet some of the people who contributed information and ideas to this issue.

RITU BAJAJ, PATRICIA KAMMER, AND FRANK GRAZIANO
Steelcase WorkSpace Futures Researchers

To understand the behaviors of creative collaboration and innovation, Steelcase WorkSpace Futures researchers Ritu Bajaj, Frank Graziano and Patricia Kammer worked for several years, braiding what they learned into game-changing insights and a cohesive set of principles that informed the design of Steelcase's new innovation center. Bajaj, who was an architect in India and holds a master's degree in human-centered product design, applied her expertise in ethnographic techniques to lead an experience pilot in a full-scale prototype of the center. Graziano, who holds an undergraduate degree in design and a master's degree in fine arts, led strategic investigations into innovation at leading companies and the d.school at Stanford University. With a degree in interior design, Kammer conducted benchmarking and primary research, and she played a key role in synthesizing the team's findings into design programming.

▲ CHERIE JOHNSON, JAMES LUDWIG, AND ALLAN SMITH
Steelcase

Cherie Johnson, James Ludwig and Allan Smith share a conviction: good experiences and outcomes result from user-centered design that's based on careful observational research. As the design manager for Steelcase's new innovation center, Johnson worked closely throughout the project with Ludwig and Smith, whose teams would be moving into the space. Johnson has a bachelor's degree in interior design and gained nearly 15 years of experience at a large architectural firm before joining Steelcase. An architect and designer, Ludwig lived and worked in Berlin before joining Steelcase in 1999. Smith's academic training combines business and art history, and his 20-year career with Steelcase includes a recent three-year assignment in France.

▲ CHRIS CONGDON AND GALE MOUTREY
Steelcase

Chris Congdon and Gale Moutrey are passionate advocates for the idea that organizations can become more resilient and actually amplify their performance by being very intentional about the places where they bring people together to work. Congdon is director of research communications and editor of 360 Magazine and Moutrey is vice president, brand communications. They collaborate with leading organizations to help them rethink the strategic role of their physical environment.

"At the very heart of an organization lies its purpose — its reason for being — and it can activate that purpose by fusing together its strategy, brand and culture," says Moutrey. "Creating the right places can make this visible to the people who work there, and help bring an organization's purpose to life," adds Congdon. "These 'right places' are diverse ecosystems of work destinations — places where people want to be because they perform better when they are there."

▲ MARTIN OBERHÄUSER AND SEBASTIAN STRUCH
oberhaeuser.info

The founder of the design studio oberhaeuser.info in Hamburg, Martin Oberhäuser, together with graphic designer Sebastian Struch, created the infographics that illustrate our feature "Amplifying Innovation" and Trends360. He has a passion for complex data visualization and information design, which he says should always be easy to use and also fun to look at. Sebastian works as an independent designer in different disciplines. Besides information design, his fields of activity are also corporate and packaging design. Good design should always be able to touch you, he says.

▲ ALLISON ARIEFF
Freelance writer, The New York Times

Allison Arieff applied her perspective as a journalist to write about Steelcase's latest product innovations. Based in San Francisco, she is an editor and content strategist for the urban planning and policy think tank SPUR, and is also a regular contributor to The New York Times, Wired, Design and other publications. A former book editor, from 2006-2008 she was senior content lead for IDEO.

▲ SHUJAN BERTRAND
Coalesse

With 13 years of experience as an industrial designer and strategist, Shujan Bertrand is working with Steelcase's Coalesse group to translate user insights into new products that support creative workers at home as well as in workplaces. Having led design strategy projects for Samsung, Microsoft, Fujitsu, Procter & Gamble and other leading consumer brands, she's an experienced innovator whose philosophy is to use insights to provoke new thinking that ultimately results in designs that evoke strong emotional responses.

Q&A WITH

Andrew Zolli

"Innovation and resilience are closely related."

Hurricanes. Droughts. Recessions. Network crashes. Geopolitical conflicts. The order of the day seems to be disruption and crisis.

That's why it's critical for companies to be resilient, says Andrew Zolli, co-author of "Resilience: Why Things Bounce Back," a book about why some organizations fall apart in the face of disruption while others flourish. Resilient organizations don't rely on any single plan for the future; they're agile, cooperative and responsive. Amid change they don't just survive, they thrive. What builds resilience? Empowered middle management and helping the company's social networks grow like kudzu, for starters.

Zolli is executive director and curator of PopTech, an influential global innovation network that explores key forces influencing the future and develops new approaches to the world's toughest challenges. He's helped companies such as Nike, American Express and GE to understand the evolving global operating environment and how to excel in an increasingly precarious world.

Crises seems to be more frequent today. Is that why resilience is such a hot topic?

Yes, absolutely. Consider that in 2012 alone we had a heat wave that melted the tarmac under airplanes in Washington, D.C.; half the country declared a federal emergency due to the largest drought in a century; the largest blackout in history left one in nine people on Earth (all in India) in the dark; and super storm Sandy —all influenced by a warming climate.

This kind of permanent and intrinsic volatility is becoming the new normal. And not only are we experiencing more disruptions, but their consequences are becoming harder to predict. That's because the world is connected in ways we can scarcely imagine: climate, energy, the financial, social and political systems are all interlinked and hard to observe. And worse, we have all sorts of natural cognitive blindness when it comes to disruptive change. Our brains are trained to attend to certain forms of change but not others, which is why we are constantly surprised that our models are not as nuanced as the world we live in. When you combine complexity, interconnectivity and blindness, tie the systems together and stress them all, you get these volatile spikes, or crises.

What's the impact on individuals and organizations?

Obviously, these kinds of spikes to the system—the financial crisis, droughts, food shortages, hurricanes, etc.—are costly. The last year for which we have data, 2011, was the most expensive year for natural disasters in human history and 2012 will likely top it. But that's really just the beginning. There are also indirect costs: the increasing costs of insurance and the increasing difficulty of long-term planning. And then you have things like the psychic stresses—on our people, which can be less visible but no less damaging.

Give us an example of organizational resilience.

When Katrina hit the Gulf Coast, people's homes were literally under water. They lost their possessions, money, identification, everything. One of the most important regional banks, Hancock Bank, lost 90 of their 115 branches and their headquarters was decimated. The electricity was out, computers weren't working and their offices were flooded, but the bank came up with an ingenious response:

"There's tremendous power in the physical environment to help build trust, cooperation and resilient behavior."

They set up tents and card tables as offices, and offered anyone who needed it—customers and noncustomers alike—$200 in cash on the spot. No ID, no problem. It was a radical act of trust in the communities they serve. In the first few weeks after the storm, Hancock loaned out $50 million in cash in this manner. And what was the result? 99.6% of the loans were repaid, and net assets at the bank grew by $1.4 billion dollars in the 90 days after the storm, as people moved their money over to the bank. This is the kind of adaptive, flexible response that defines a resilient enterprise —and it didn't come from the corner office. It came from the middle management, who understood and were motivated by the values of the institution.

Where does that kind of resilience come from?

Resilience has lots of correlates. First and foremost, we see it in organizations with tight cultures but loose tactics. These are companies that have a culture of continuous, modest risk-taking and are flexible and adaptive to circumstances.

Interestingly, these aren't always places where people all think the same way—indeed, most are companies that tolerate a lot of cognitive diversity. They have people who think about the world in different ways, who think about the same problem, with the same facts, but from different perspectives.

Another critical aspect of organizational resilience is trust: People have to be ready to believe in one another and cooperate when things go wrong. Resilience is what we call adhocratic—it involves lots of little collaborations between many different actors; rarely is it driven by some top-down plan. So you find it in organizations with a lot of trust, diversity and collaboration.

How does the organization develop ad hoc solutions?

Not like you might think. The cliché of leadership in a crisis is either the square-jawed visionary CEO at the top or the street activist/external agitator. Yet when disruption occurs it's hard for people to issue top-down commands because they don't have good situational awareness, while people on the front lines lack a broad, systemic view. The real strength in a resilient organization comes from the organization's middle management.

If the middle is strongly connected and there's cultural permission to be improvisational, they can use their shared values and mission to get creative and respond to a crisis. They don't have to check with the top. There are no rules, so they invent them as they go along. And they can do extraordinary things.

The Hancock Bank employees understood the bank was about helping people achieve their financial goals. The board and CEO didn't decide to set up those tables and tents. The empowered middle, fueled by creativity and improvisation, came up with that solution.

Can a company's physical space influence resilience?

Absolutely. There's tremendous power in the physical environment to help build trust, cooperation and resilient behavior. Humans are social, and the natural environment is our preferred environment. We also like to be near places where we're by ourselves in the context of other people. When people are in these environments, their cortisol levels drop and their pro- social and trust behaviors increase.

Yet so many offices put people in the interior of the building, away from the natural environment and daylight. Soul-crushing cubicleville. They take away every aspect of a human's preferred environment. However, there's an enormous performance and resilience benefit that comes from working in an environment that's physically designed to mimic the environments to which we have innate, low stress reactions.

How can you build that kind of collaboration when the organization isn't facing a catastrophe?

The ability to withstand disruption is mostly a by-product of decisions made when things are calm. We see resilience emerging from four basic capacities.

The first is the ability to build regenerative capacity when things are going well. This is measured by the health of an organization's culture, its levels of appropriate risk tolerance, the strength of its internal and external social networks, the physical and mental health of its people, its embrace of diversity, its adaptability and its level of trust. This self-renewing capacity is the single most important aspect of resilience, and it's proactive, not reactive.

The second aspect of resilience is the ability to listen for change, to sense impending disruptions. This means listening for weak signals, things that are on the edge today but might be major disruptors soon. It also means interpreting those signals, rehearsing for various forms of change and embracing scenario-based thinking.
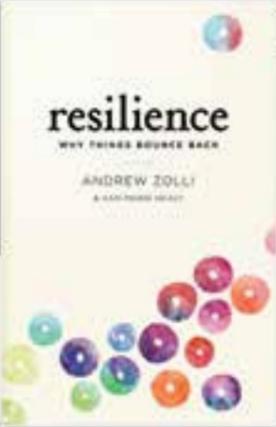
The third aspect is the ways we respond to disruption, unlocking the kind of adhocratic, improvisational response we discussed.

Finally, consider learning and transformation, taking the lessons of response and reshaping the kinds of capacity-building we're doing, and the ways we're listening for future changes. Resilience isn't found in doing one of these things well—it's found in doing all of them well.

To build trust and cooperation, change the places where you want people to engage in trusting behaviors. Put them in environments that naturally unlock those behaviors, places where they're less stressed, less fearful and more at ease.

People are mobile and organizations are often widely dispersed. How do you get widely dispersed people to work together?

There was a famous study done in the 1970s about how people find jobs through networking. Most people found new employment not from people they knew, but from people they knew who in turn knew someone else. That's called a "weak tie": someone you know through someone else. Researchers also found that most people found novelty through these weak connections, whether it was looking for a new job or new information. So if you're looking for new information, having a lot of weak-tie—the kinds of ties we have through social media—is really helpful. But if you're trying to produce and synthesize new work or new products, you actually need intimate, strong-tie connections.

The best teams are small groups of people who have close ties with each other, and each of those people individually have large weak tie networks. They keep in touch with widely disparate ideas and different ways of thinking. They're exposed to new ideas and information constantly, which they then bring to the table to share with their small, strong-tie colleagues. It makes each of them a better collaborator to have a large weak-tie network. Twitter is a good example of a technology that helps people maintain and use

a large weak-tie network. Later, when you need to work more closely together, you meet in person, use the telephone or a videoconference for higher bandwidth to develop a strong-tie with the person you're collaborating with.

The trick is to pick the right spaces for the right kinds of work. Say we're going to design a new product. If we're on the team, we have to have really strong ties and connections together. Most effective teams are small groups of strong-tie folks who themselves have very large weak-tie networks—people who know their team members well, and have a lot of sources of information, insight and inspiration.

Some companies recently decided to bring home-based employees back into the office. What does this mean for distributed work?

Companies are realizing that people need time to work face-to-face, that they can't work apart all the time. Many companies are realizing this and to some extent they are re-urbanizing, recognizing the huge value of face-to-face communication, that people need to work together. Our cognitive processes are designed for human interaction. ○

RESILIENT REAL ESTATE:

Space as an adaptive system

By Chris Congdon
and
Gale Moutrey

Amongst the whirlwind of volatility that seems to spin from one crisis to the next, business leaders are looking for new skills and strategies that will help their organizations thrive in the new global economy. At the same time, in this era of unprecedented complexity, the study of resilience has emerged in which scientists, economists, government leaders and psychologists are working to understand how systems, organizations and people can adapt to stay fit within an environment of constant change.

In his new book, "Resilience, Why Things Bounce Back," author Andrew Zolli draws from ecology and sociology to consider resilience "as the capacity of a system, enterprise, or a person to maintain its core purpose and integrity in the face of dramatically changed circumstances." Zolli suggests that "If we cannot control the volatile tides of change, we can learn to build better boats."

The notion of resilience is generally talked about in terms of economies, markets, ecosystems or people, but rarely in conjunction with organizational real estate. Leading real estate professionals consider how to create greater flexibility in their portfolios, but many overlook how they might better leverage these assets by developing strategies designed for resilience. At Steelcase we asked ourselves how the concept of resilience could be applied to the creation of the places where people within an organization come together. Could we construct a strategy designed to leverage today's complexities and embrace the speed in which circumstances change? Could real estate become an adaptive system to better support an organization's strategy, brand and culture by shifting fluidly while remaining economically viable? Could we develop that "better boat" through real estate? In each case, we believe the answer is yes.

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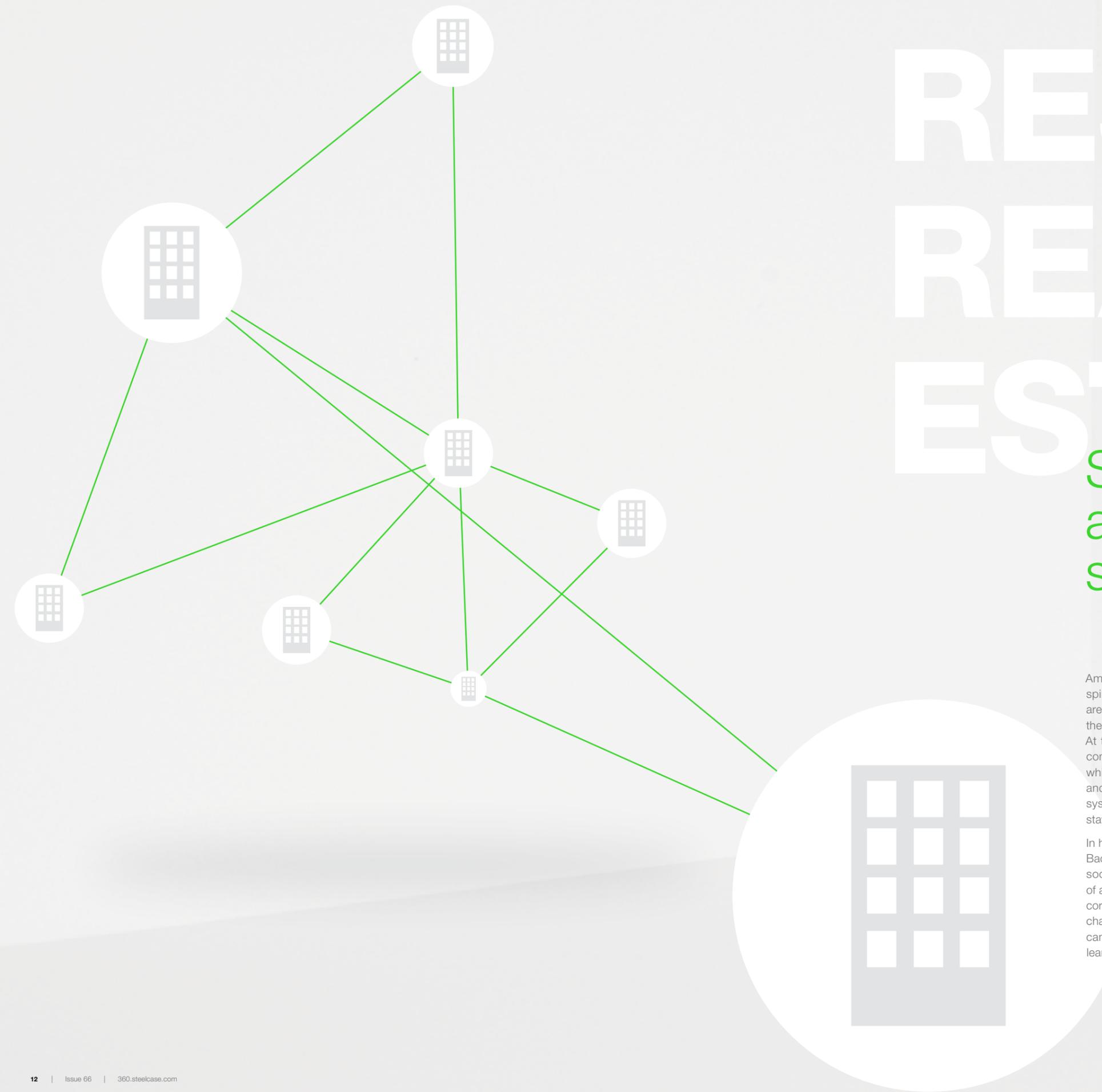
A GLOBAL OPPORTUNITY
Space Per Employee 2013

130 sq. ft. / **12** m²   Austria

180 sq. ft. / **17** m²   France

320 sq. ft. / **30** m²   Germany

215 sq. ft. / **20** m²   Italy

162 sq. ft. / **15** m²   Spain

190 sq. ft. / **18** m²   US

170 sq. ft. / **16** m²   UK

0   50   150   100   200   250   300   350
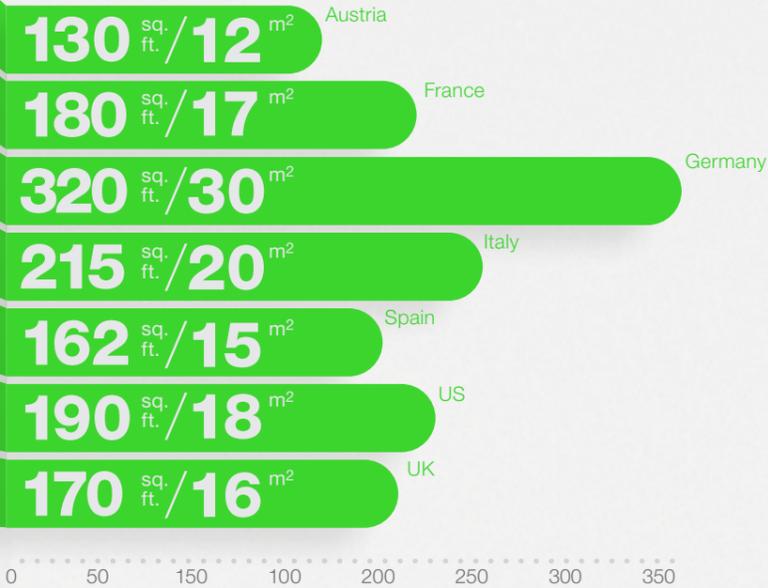
Ten years ago the average allocation of space per employee in the United States was 250 sq. ft. Five years from now it's projected to shrink to 150 and other countries are moving in the same direction.

Global organizations have an opportunity to not only shrink their real estate footprint but also amplify the performance of their people.

Resiliency is not just about making things smaller, but also better.

A SUSTAINABLE APPROACH

Researchers define resilience as the ability to adapt to changed circumstances while continuing to maintain core purpose and integrity. Exploring and applying some of the principles of resilience provides a framework for real estate strategies to achieve this adaptive capacity.

When a real estate strategy embraces these ideas, it can create a more sustainable approach that is not only capable of withstanding volatile economic conditions, but also help builds trust and cooperation— what Zolli terms "people's ability to collaborate when it counts." It creates real estate that can help augment the interactions of people at work and build resilient workplace communities through strong social networks based on trust, that can flourish even in the most challenging situations.

To date, in an effort to respond to rapidly changing conditions, organizations have implemented alternative work strategies (AWS) such as teleworking, hotelling and mobile working. These have been implemented as a way to limit real estate costs while supporting organizational objectives, such as work-life balance for employees or reducing carbon footprints. The idea behind AWS was pioneered by IBM in 1989, but it's only in the last five years that most companies—80% according to one recent study— took hold of it as a means of reducing real estate costs and supporting a more mobile workforce.

Overall, AWS reduced the size of real estate portfolios about 6-10%, according to CoreNet Global. While a broad implementation of alternative work strategies might have reduced portfolios further, currently only about one-fifth of employees are engaged in alternative work programs. And some companies that have implemented AWS as a space-cutting strategy often leave real estate idling: 11% of workers who use alternative workspaces still have an assigned workspace.

AWS has resulted in modest reductions in real estate portfolios, but there is a steady shift happening. Ten years ago the average allocation of space per employee in the U.S. was 250 square feet; today it's 185-195 and projected to shrink to just over 150 in five years. Europe posts similar numbers, according to global real estate firm Cushman & Wakefield: offices in Italy average 215 square feet, in France 180; Spain, 162; the United Kingdom, 170; Germany, 320; and Austria, 130.

While the cost-reduction trend is encouraging, there is a growing awareness that AWS can be effective only if it's part of a broader approach that considers effectiveness as well as efficiency. This begins with understanding that work is inherently a social endeavor and that in order to be successful people need other people, they need access to technology and they need places that bring these elements together. As one of our research colleagues put it, "The workplace is the original social network." Thus space is being recognized by executives as a key element of organizational success.

PLACES WHERE PEOPLE WANT TO WORK

In the past, people had to go to the office to go to work. If they weren't in the building they couldn't connect with co-workers, the company's IT system, or printed files; if they weren't in the building, they weren't working. Then technology cut the tethers to specific locations for work, the global economy became everyone's marketplace and cutting expenses became paramount.

Technology tantalized us with the idea that we could save money by rethinking our approach to work and traditional concepts about the workplace. Did we need buildings at all? Could workers simply work from home and communicate virtually? Could the company substantially reduce its real estate and its inherent costs by implementing alternative workplace strategies? Companies that focused primarily on cost-cutting and finding ways to put more people into smaller spaces learned some tough lessons, says Peter Shannon, managing director of Jones Lang LaSalle, a worldwide real estate services firm. "Companies lost some things in the process. Teams could not truly collaborate. Employees felt disjointed. Leaders saw a decline in creativity and productivity."

Today some companies have started mandating that people come back to the office as a way to drive collaboration and rebuild a sense of connectedness to the organization.

Despite plenty of pros and cons cited for co-location versus distributed work, real estate professionals agree that the discussion has elevated the awareness of how much the physical environment drives organizational performance and business results.

Leading organizations know this means more than just bringing people together in buildings that bear their name. It means going beyond the aesthetics of the environment to creating places that actually help people engage more fully in their work, help build trust with distributed co-workers and allow people to innovate faster. "Companies have learned and now they're asking how to create work environments where people really want to come to work," says Shannon.

THE TENSIONS OF TODAY

Knowing how to create places that amplify the performance of people and the organizations they work for means understanding and designing for the tensions that exist today:

▸ The more mobile our devices allow us to be, the more we need fixed places to come together to connect and collaborate

▸ The smaller our technologies, the more we need scale to share and communicate effectively with others

▸ The more data we generate, the more we need places to help us make sense of it

▸ The more collaborative we became, the more we need time alone

▸ The more distributed we become, the more we need to be together

▸ The more virtual we need to be, the more physical we want to be

This is the role that place can and should play. In an increasingly interconnected and interdependent economy, the places where organizations come together matter more than ever.

The opportunity is to not just build smaller offices, but to create destinations that attract people because it is where they can do their best work. Places that provide meaningful experiences for the people who use them, today and tomorrow. Workplaces where resilient organizations can grow and thrive.

The Elements of a Resilient Real Estate Strategy

Clustering

Design the physical environment to help bring a diverse range of people, resources, tools and ideas into close proximity with each other, while achieving the right level of density—not too sparsely populated or overcrowded.

Clustering promotes the cross-pollination of people, ideas and experiences through places that bring them together. These places are designed to augment people's interactions, whether working side-by-side or across continents.

Modularity

Create places with a modular structure, using integrated interior architecture, furniture and technology components that can be easily reconfigured and enhanced when business needs change, especially during times of rapid growth or disruption.

Modularity requires an intentional design that balances spaces equipped for individual work and group work, some which are owned by individuals and teams and some which are shared. The ability for users to self-select places where they can be most effective allows the overall space to address the shifting needs of the organization.

Feedback Loops

A feedback loop for the physical environment allows organizations to learn what is working or not, to modify the workplace and continue to iterate and evolve. This means developing a diverse system of quantitative and qualitative data that can alert the organization to the need for gradual or rapid change.

By also employing the concepts of clustering and modularity, the feedback loop allows an organization to rapidly and dynamically reconfigure its spaces and avoid business disruption.

CONSTRUCTING A RESILIENT REAL ESTATE STRATEGY

Three principles from the study of resiliency form the framework we've developed for creating real estate that fluidly adapts to to ever-changing circumstances and an evolving organization, while continuing to serve the company's mission.

#1 CLUSTERING

Zolli writes that "resilience is often enhanced by the right kind of clustering—bringing resources into close proximity with one another...a special kind of clustering, one whose hallmark is density and diversity—of talent, resources, tools, models and ideas."

A resilient real estate strategy is one that embraces this principle as a foundational element and promotes the cross-pollination of people, ideas and experiences through places that bring them together. These places are designed to augment their interactions, whether working alone or in teams, side-by-side or across the globe.

Such places enhance both the quality and quantity of human interaction when they are equipped with the tools and experiences that matter most—quick and easy access to colleagues, the tools people need to do their jobs and the technologies that amplify their performance.

Through our ongoing design research about the behavior of people at work, we know that choice and control over where and how people work is fundamental to satisfaction and engagement. Places that support the various modes of work in ways that consider physical, social and cognitive wellbeing help people be most effective at what they do.

Based on this understanding, we developed a concept that we deploy in our own spaces as well as with our customers: the interconnected workplace. It promotes choice and control over the places people work within an overall ecosystem of spaces with three key features:

▸ **Palette of Place:** a range of owned and shared spaces designed for both individual work and team work

▸ **Palette of Posture:** spaces designed to support movement

▸ **Palette of Presence:** spaces that support mixed presence experiences, both physical and virtual, and analog and digital information-sharing

This concept leads to workplaces that allow people to choose where and how they want to work, or as we call it, "best place": the ideal place, anywhere on campus, based on the type of work that needs to be done and the environment required to be successful. The result is a global ecosystem of spaces designed to augment the interactions of people, while reducing the company's overall real estate footprint and costs.

This approach allows an organization to do more with less and challenges the company to leverage today's complexities to rethink rather than merely shrink real estate. The return it yields can impact the bottom line in ways that transcend cost-cutting since resilient real estate invests in the key asset of any organization: its people.

#2 MODULARITY

There are certain structural features of resilient systems that allow them to ensure continuity by dynamically reorganizing when circumstances require it. "While these systems may appear outwardly complex, they often have simpler internal modular structure with components that plug into one another, much like Lego blocks," writes Zolli. "This modularity allows a system to be reconfigured on the fly when disruption strikes, prevents failures in one part of the system from cascading through the large whole, and ensures that the system can scale up or scale down when the time is right."

A resilient real estate strategy mimics this principle when it has been intentionally designed to create a balance of spaces equipped for individual work and group work, some which are owned by individuals and teams and some which are shared. The ability for users to self-select places where they can be most effective allows the overall space to address the shifting needs of the organization.

In terms of the physical properties of resilient spaces, modularity integrates interior architecture, furniture and technology to allow for easy configuration and adaptation as required to support the types of spaces organizations need at any stage, especially during times of rapid change and disruption.

As the needs of users shift and external factors impact business conditions, these spaces remain vital because they are capable of morphing and evolving as required, without increasing the overall footprint and operational costs.

Resilient places are designed for maximum performance. Every square foot contributes to the effectiveness of the people working there. This understanding caused us to question conventional thinking about real estate and why the focus is primarily on the horizontal plane and rarely on the vertical.

Through further research and development, we have explored how vertical real estate can expand the role of walls beyond boundary and division to become vehicles for communication, collaboration and concentration—the elements essential for augmenting human interaction. We believe the vertical plane is a foundational element in creating an interconnected workplace and can be the underpinning of resilient real estate when it's designed for intelligence as much as for function.

#3 FEEDBACK LOOPS

"From economies to ecosystems, virtually all resilient systems employ tight feedback mechanisms to determine when an abrupt change or critical threshold is nearing," Zolli writes. "We are soaking in a world of sensors and the feedback data that these sensors produce are a powerful tool for managing systems performance and amplifying their resilience –particularly when those data are correlated with data from other such systems."

Real estate executives and the teams they work with need to apply this same thinking to make sure they employ feedback mechanisms that offer regular, ongoing feedback that can signal when change is required or critical issues need to be addressed.

"The business cycle is so dynamic and elastic. The environment changes and you can't always predict where the business needs to go, so you have to increase your capability to respond. Flexibility is so much more important in real estate now," says Shannon of JLL.

While collecting and analyzing feedback that informs global real estate strategies can seem daunting, there are a number of ways to capture the data. The spaces themselves should provide organizations with feedback that can help inform their real estate strategies. Advanced scheduling systems integrated into individual and group spaces can track space utilization with real-time analytics that measure and report reservation patterns, lighting, temperature, etc.

The PricewaterhouseCoopers real estate group closely monitors workplace performance data for each of its member-owned firms by tracking when staff members access PwC's network, check-in to the hotelling system from digital devices or use an access card. Data is captured daily and segmented by lines of services (tax advisory, assurance, etc.) and types of employees (partners, directors, staff). "Detail is key," says Steve Adams, PwC's director of workplace strategy in the U.S. "Who is coming in the office? Are people taking advantage of our mobility programs?"

Each month, updated workplace performance information is made available via an internal web-based dashboard and document repository for PwC's senior leaders and partners who manage markets and facilities. It shows who's following hotelling protocol in their office, conference room usage, even how other firms are responding based on their client list, where they're located and their mix of business.

"If you don't have this information to manage your workplace it's like running a business without a balance sheet. It's essential to understanding how our office environments are working," says Adams. (For another innovative way to measure workspace performance, see "Moneyball for Business" on the opposite page).

Like every balance sheet, workplace performance data reveal only part of the story. Adams says that, like most organizations involved in the knowledge economy, "our people are our product. They're the ones who serve our clients, so we want to make sure they have the best workplace experience possible." This experience translates into support for mobile workers and a workplace that attracts and engages talent, communicates the company brand, and supports the relationship-building that sustains collaboration, trust and company culture.

Workplace surveys can be an effective way for organizations to monitor and measure the experiences their people are having at work. Steelcase offers a wide range of workplace surveys to our clients, providing feedback data on mobility, collaboration, worker satisfaction and other measures. We use these surveys to measure the effectiveness of our own global real estate portfolio.

RESILIENT ORGANIZATIONS

A company's people and its real estate are its two greatest expenses—and its greatest resources. The two are irrevocably intertwined. Real estate can and should do more to create value for the organization by amplifying the performance of people at work. Therein lies its greatest value to the company.

In a world that seems to leap from one crisis to the next, resilience can make the difference between success and failure for an individual, a group, a company. "We can design—and redesign—organizations, institutions and systems to better absorb disruption, operate under a wider variety of conditions and shift more fluidly from one circumstance to the next" notes Zolli.

A resilient real estate strategy, based on the principles of clustering, modularity and feedback, helps create strong communities of people in the workplace. It allows them to be more adaptive to change, more able to respond quickly and decisively to a changing global marketplace, and collaborate and cooperate more effectively. Steeped in trust, these people are more agile, innovative, and ultimately more resilient.

And resilient people lie at the heart of a resilient organization. ○

MONEYBALL FOR BUSINESS

Using big data to develop better workplaces

185-195 square feet. That's the typical amount of space allocated for a knowledge worker in the U.S. today. Five years from now it will be 150 square feet, according to CoreNet. At Steelcase's global headquarters, the current average is 155.

"While this is almost 30 square feet less than it was two years ago, the more important question is, how well do these spaces support communication and collaboration? How well will they adapt to new technology, new work processes? How resilient will they be over time? These are difficult questions for any company to answer," says Dave Lathrop, director of WorkSpace Futures and strategy at Steelcase.

But the company is using new research methods to gauge workplace performance, "and the results we're seeing are more accurate, detailed and nuanced than ever," says Lathrop.

For example, the research reveals that conversations in the morning are more process-related conversations, with more informal interaction happening in the later afternoon, even though both take place in the same location. Lathrop believe "people hit the ground running and are task-focused in the morning. As projects peak and wind up, there's more back-and-forth discussion, more sharing of what happened and discussion of results."

In the new workplace people are communicating more, both face-to-face and via email, video and text, with colleagues located farther away on the floor. "We believe that since these people have worked together for some years, they know others nearby but need to connect with people located further away," says Lathrop.

To provide such detailed data, employees wear sensors (about the size of a company ID badge) that record detailed information about their movements and conversations over a period of weeks: body movements, the energy level of conversations, where they're located in the work environment, what spaces they use and the interactions they have. "By analyzing this data, we can track how information flows around the company, the diversity of connections, what workspaces are being used the most, how connected or disconnected people are, how they relate to others on their team and similar information," says Lathrop.

"Since much of the value that a company produces comes out of the interactions that people have with each other, it's critical to know the kinds of spaces that best support interactions."

Lathop's team works with Sociometrics Solutions, a firm begun by people from MIT Media Lab, an organization with which Steelcase has had a working relationship for many years. Sociometrics developed the sensors and the software that analyzes the collected data.

Ben Waber, Sociometrics CEO, likens the work to how baseball teams switched from using intuition and observation in player evaluations to using detailed statistics, a game-changing idea featured in the movie "Moneyball." "We're applying Moneyball to business. We're taking what's been a very qualitative process for a long time and using data to inform and drive decisions.

"If you ask people, for example, who they talked to yesterday, their responses will be about 30% accurate. They'll respond with the people they know best, or who they like. People aren't being dishonest, they just don't remember that kind of detail. By tracking their interactions, we get very fine-grain, accurate data."

Individuals are not identified; people are linked to teams and only aggregate data is analyzed. Individual information is kept confidential.

"At the end of the day, this information gives us the ability to fine-tune our designs and applications like never before," says Lathrop.

WORK

Hospitality

Visitors to the Workspring
enhanced business environment on the fourth floor
of Chicago's historic Inland Steel Building can't help
but transform their view of the traditional office. This
pioneering venture of Steelcase alters that perspective
with an inviting, diverse work space that will help
companies re-think their real estate footprint, appeal
to an increasingly mobile work force, and provide
project teams with inspiring space to collaborate.

"Workspring embraces the philosophy of collaborative consumption, a business model gaining momentum based on the concept of sharing rather than owning resources."

The fully hosted, 10,000-square-foot Workspring at 30 W. Monroe St. in the heart of Chicago's Central Loop—a destination now considered the flagship of the Workspring brand—offers a palette of technology-infused studios and task-oriented spaces geared toward stimulating an optimum work experience for groups and individuals on an as-needed basis.

John Malnor, vice president of growth initiatives for Steelcase, calls it "charismatic" space.

In much the same way that an upper-echelon fitness club offers members the latest equipment, comforts and personal services as needed, Workspring embraces the philosophy of "collaborative consumption," a business model gaining momentum based on the concept of sharing rather than owning resources.

It's an attractive option for companies that don't have the real estate—or the financial resources for expansion—to host group and team meetings, as well as for off-site staff, satellite employees and independent professionals seeking premium office space in which to work and meet clients.

And it offers businesses refreshing and invigorating space away from the everyday office to tackle critical projects within a tailored setting that places a high priority on gracious hosting, equipped with the latest tools and ergonomic seating. Workspring's "work hospitality" aspires to fulfill every need—from whiteboards, paper and supplies to nutritional food and snacks—thus nurturing quality results.

"When you walk in, people know your name, you feel like you're important, you feel cared for and, hopefully, when you leave, you're healthier than when you came in," Malnor says. "We want to make everything evoke curiosity and interest. We want it to be so good, it's like the caffeine in Starbucks. You feel a craving for it."

Ultimately, that means heightening the work experience: Workspring echoes the service of a five-star hotel for corporate coworking members and those using suites for group sessions. It offers everything from secure wireless Internet access, personal lockers and favorite beverages to high-definition videoconferencing.

"How can we be there to help you when you need us, but never bother you when you don't?" Malnor says of the concierge-style service. "We want to help people do their best work."

"Customers are not focusing on the individual furniture. They see that as part of what created the compelling experience. Where we lead in the marketplace is our knowledge of work. We know how to create a great experience," says mark Greiner, chief experience officer for Steelcase.

Steelcase has partnered with Marriott Hotels to develop a Workspring within the Redmond Marriott Town Center outside Seattle, Washington, a 6,000-square-foot facility designed for business travelers and those seeking collaborative environments for small meetings.

Frank Graziano, principal Steelcase researcher in Business Concept Development for WorkSpace Futures, sees unlimited potential in hotel partnerships. "We helped paint an opportunity landscape for them," he says. "Could they be the new workplace 10 or 15 years from now? This is the first step in us collectively trying to serve that market. It will take a little while for that to develop."

The seeds of Workspring date back to 2006, when Steelcase researchers documented two significant workplace trends: fast-emerging technologies with bandwidth expansion that allow people "to work from everywhere" using mobile devices and increasingly complex business problems that require multiple perspectives and group collaboration.

Greiner recognized that changes in business economics and a tougher competitive environment also required the company to find ways to "generate more value in the eyes of our customers."

Inspired in part by books such as "The Experience Economy" by B. Joseph Pine II and James H. Gilmore, which emphasizes the importance of client experiences in stimulating economic growth, Greiner led researchers to "create an experience of work that would be more highly valued" by Steelcase customers. "The future is not just about the stuff we make. It's about the experience we create."

The team spent two years researching and developing what would become Workspring. The first site—the 5,000-square-foot 12 East Ohio building in Chicago's River North Neighborhood—opened in the fall of 2008, focused primarily on the team collaboration and group meetings market.

The much larger 30 W. Monroe location opened in January 2013 with a broader array of work space options that Malnor says leverage "all the tools that Steelcase has developed over the years."

"With the world rapidly untethering people from the office, Workspring offers a dynamic new alternative. It's all about groups working in a very mobile society."

It targets four distinct markets: corporate coworking for individuals, group and collaborative meetings, extended projects and social events, all of which benefit from natural light amid a "free-flowing, feel-good organic space," says Danielle Galmore, director of New Business Development for Steelcase and managing director of Workspring. The site boasts a "forum" for coworking, a "library" for quiet personal tasks and "heads-down contemplative" work, focus booths, seven styles of collaborative studios with seating at different postures, exchange spaces between studios for breakout sessions and private areas for phone conversations.

With the world rapidly "untethering people from the office," Greiner says Workspring offers a dynamic new alternative. "It's all about groups working in a very mobile society."

And that work is happening in an economic climate that has more companies eyeing collaborative consumption when it comes to real estate, a high-capital fixed asset. As Greiner puts it: "It's allowing companies to say, 'Why do I need to buy something when I can share it when I need it?'"

Malnor says the prime Chicago location of the 30 W. Monroe Workspring—chosen for its vibrancy, historic status, structural beauty and access to transportation, restaurants and other services—makes it highly attractive.

"In this place, for less money than you would rent the smallest office possible in Chicago, you can sit in the corner window office, you can go into a private office, you can have a meeting with a team, you can host 40 people for a day. You can sit quietly or you can sit with a group," he says. "You can choose your level of engagement and you can choose the type of work space you want. Very few small companies or large companies offer you that kind of solution."

Sprawling conference rooms maintained by many companies, for instance, sit idle much of the time.

Workspring allows employers to get access to "the best technology, the best space, the best furniture and the best location," but only when necessary, says Greiner, noting Workspring also has appeal as a green initiative. "It says the money they do spend for space-related expenses is optimized: I'm spending it when I need it, where I need it."

And for off-site employees and independent professionals, Workspring offers high-performance, connected space away from the home or hotel room.

At 30 W. Monroe, Workspring's service menu for individuals offers a monthly membership for unlimited daily access, a limited plan for up to five full days a month, or a day pass. Studios with flexible configurations can be rented for group sessions for half-days or full days; groups can arrange exclusive use of secure, lockable project suites for long-term tasks lasting weeks or months. Workspring also hosts corporate social events, presentations and educational programs, with arrangements for special catering as needed.

The Workspring experience starts from the moment one arrives. Trained staff members greet visitors, who can review the day's latest news on a Workspring-provided iPad as they stroll in and enjoy a cup of coffee or a nutritional breakfast.

"You notice when you walk in, you walk into the kitchen," Malnor says. "Where does everybody gather when they come to your home? Everybody gathers in the kitchen. There's a human thing about sharing bread together. It's just a core human, social thing.

"Someone looks up and smiles and says welcome. We'll know if you have a peanut allergy or if you like cream with your coffee or you prefer a latte versus a cappuccino. We'll know which window seat you like. We'll know more about you than probably most of your co-workers ever knew because we're looking at everything you do and thinking of how we can make your day better."

That means offering healthy, light food, locker space for boots, backpacks and jackets, supplies as diverse as recyclable markers, disinfectant wipes, lint rollers and power cords. Security is paramount with card-key access and individual security cameras. Special precautions are taken for corporate clients seeking privacy for meetings about product launches and confidential matters.

Workspring is mostly about ensuring workers' well-being, a pillar of the brand. Consequently, Workspring pays attention to detail with subtle environmental touches. Designers of the window-rich space ensured users would "always have a nice sightline or a nice view in the space," Malnor says. "As you walk around this space, you'll notice that everywhere you look, you'll get an outside view where you get natural light. And almost everywhere has something that's alive and green and beautiful. These are little touches that bring a kind of humanity to the space."

Graziano of WorkSpace Futures says the research team "worked hard to develop a very experiential offering" for Workspring that focused on gracious hosting to serve clients with "a degree of presence, subtlety, humility and kindness without interfering with their work." The inviting atmosphere ranges from a pale blue "Workspring color" on some walls to induce "a nice respite for the mind" to felt-covered hangers that don't rattle in lockers. Graziano calls them "little micromoments" that add up: "It's the set of elements that create an experience, a set of intangibles, that collectively are integrated into a very nice feeling for those who come to visit."

"In this place, for less money than you would rent the smallest office possible in Chicago, you can sit in the corner window office, you can go into a private office, you can have a meeting with a team, you can host 40 people for a day."

The proof is in clients' reactions: surveys show customer satisfaction with Workspring is extraordinarily high, scoring an average of 5 out of 5 in recommending Workspring to others. "They come back because of that high hospitality," says Galmore, who analyzed and helped develop Workspring's brand and service model. "As the world has gotten more do-it-yourself, people appreciate it when they've got a group that will do it for you. They gravitate toward the fact that we have this highly-hosted experience."

Workspring also gives cost-conscious clients access to cutting-edge technological resources and tools such as media:scape, and high-definition video-conferenceing.

With its holistic approach and contemporary design, the Workspring experience caters to a broad range of players in the marketplace. It lets small startup companies "elevate their game in terms of the space they have," giving them an elegant environment to "make the pitch for their million-dollar proposal and the client never sees the garage they're working out of," Malnor says. It also fills a niche need when "the coffee shop is too loud and too public, and the office is too non-social, non-exciting, non-exhilarating. This is a middle ground. It's more private and more exciting than an office."

That sort of experience piqued the interest of leading innovation and design consulting firm IDEO of Palo Alto, Calif., which has historic ties to Steelcase. The company, instrumental in developing milestones such as Apple's first mouse and the Steelcase Leap chair, is partnering with Steelcase on a Workspring® pilot in a building on its California campus.

Envisioned as a custom-suited facility that will "fit the character" of Palo Alto, Malnor calls it an "in-market prototype" that will serve IDEO and its clients, along with other customers. "It's going to be a very interesting space, informal and creative, a California Workspring," Malnor offers.

The Chicago and California sites spotlight another dire need satisfied by Workspring-enabled buildings: "Developers everywhere are struggling to fill their buildings," Greiner says. "It's another big opportunity to put in something like a Workspring as a benefit of the space."

Tenants of Chicago's Inland Steel Building, for example, not only benefit from the convenience and proximity of Workspring, but from special pricing for membership and use of the studios. It's an enhancement of building space that can induce tenants to stay longer and even pay more for their leases.

"I think we have a strong appetite to see how far this could go. I'd like to see a global footprint," says Galmore, who sees potential for extending and evolving the Workspring service model across platforms, through franchises, affiliates and partnerships with building owners and other businesses. "All the parts and pieces have come together in this really great puzzle."

In the end, Greiner says, the appeal of Workspring is in the experience, one that clients find exhilarating in a work environment that transcends the typical.

"Customers are saying, 'Don't just give me the ingredients for a great cake or even the recipe.' More and more of them are saying, 'Why don't you just bake the cake for me?' That's what Workspring is: the cake."

Malnor sees it as the next chapter in the company's history of enhancing and advancing the way we work. "We're building on the shoulders of 100 years of work that Steelcase has done," he says. "It's a logical extension of the Steelcase vision." ○

Workspring transforms the traditional view of the office by providing a diverse range of work settings that help companies rethink their real estate footprint and appeal to an increasingly mobile work force.

Workspring is an attractive option for companies that don't have the real estate—or the financial resources for expansion—to host group and team meetings, as well as for off-site staff, satellite employees and independent professionals seeking premium office space in which to work and meet clients.

Trends 360

What Workers Want

Work is more mobile and global than ever before, and happens around the clock. While some organizations have wondered if they even need a physical workplace anymore, forward-thinking companies have found that people need places that bring them together with other people and with their information.

A recent synthesis of Steelcase Workplace Surveys, conducted with over 265 organizations, found key insights about what workers want from their offices. People want to do their best work, so how can we leverage the workplace to inspire and engage employees?

BASICS

Get the Basics Right

natural light
great views
air quality
access to casual spaces
level of lighting
sustainability practices
right furniture and tools
adjustability of furniture
appropriate temperature

ACCESS

Quick and Easy Access to

relevant information
right technology
people who help me do my job
unplanned or impromptu meetings
scheduled/formal meetings
private, quiet places
ability to display work
support sharing and exchanging ideas
display work in progress
informal conversations

+

=

ENGAGEMENT

My workplace helps me engage to

make effective + informed decisions
create new ideas
learn from my peers and leaders
communicate with others

3x

Employees who feel their workplace "basics" are done right and have access to people and technology are 3x more likely to feel their workplace helps them to be engaged.

30
workplace attributes

30
thousand participants

08-12
survey duration

Steelcase recently completed a study based on surveys over a four-year period measuring employee satisfaction, mobility and collaboration. These surveys asked nearly 30,000 participants to measure 30 workplace attributes. Their collective responses provide a telling snapshot of what workers want, need and expect from the workplace.

LOST TIME

Employees who are dissatisfied with key workplace factors lose more time per day than the average.

86min
Time an average employee loses every day

98min
If not satisfied with ability to engage

92min
If not satisfied with access to tools and spaces

91min
If not satisfied with physical environment

13% Travel to and from buildings
14% Looking for or putting away files
25% Distraction in or near the work area
12% Finding the people to meet with
12% Access to technology
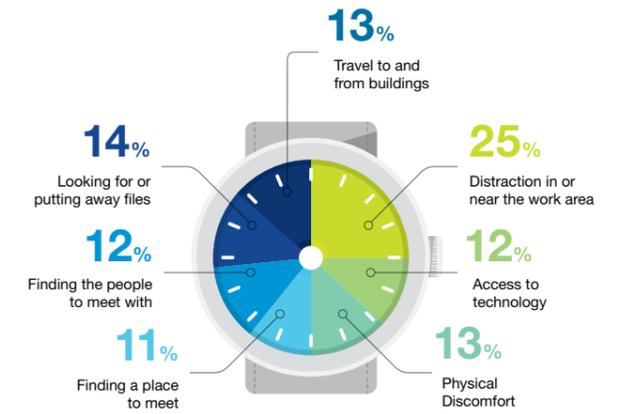**11%** Finding a place to meet
13% Physical Discomfort

AGE DOES NOT MATTER

People of diverse ages may have more similar workstyles than you think. What's important to employees is cross-generational. There are few differences in where work occurs, or how time is lost or spent at work.

The **ONLY** major difference in work styles across age is that **GenY is twice as likely to use headphones** to achieve privacy or concentration.

12% Over 65
14% Gen Y
20% Under 20
21% Gen X
33% Boomers

WORKFORCE POPULATION BREAKDOWN BY GENERATION
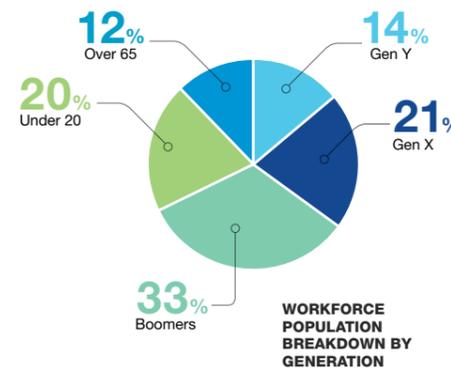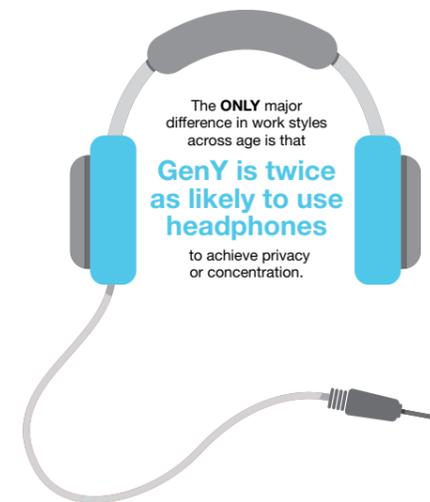
COLLABORATION + INDIVIDUAL WORK

Both individual and collaborative work need to be properly supported in the workplace. Different types of collaboration require different enviornments and tools.

54% individual workers

46% collaborators

29,000 respondants

80% of their time is spent with individual work

61% of their overall time is spent collaborating

23% of their overall time is spent collaborating with one other person

24% of their overall time is spent collaborating with three to six people

25% generative activites
29% formal structured meetings
46% informal unstructured collaboration

HOW TIME IS SPENT COLLABORATING

Amplify Your Innovation Quotient:

THE NEW I.Q.

Innovate or die. In 1997 American business writer Tom Peters coined this famous phrase. It was true then and rings even more true now. For CEOs worldwide it's obvious: Innovation is critically important to an organization's success, and it is imperative that it remains a key corporate strategy.

To move beyond survival and actually thrive, leading organizations know that innovation is the way to supercharge an organization and shift it to growth. In fact, 33% of global business leaders rank "the innovation of new products and services" as their companies' top focus in the next three years, according to a recent study by McKinsey. But the reality these organizations confront, notes McKinsey, is that innovation faces ongoing challenges, such as increasing global competition, short-term priorities, and the need to integrate it into key organizational objectives. As a result it remains elusive, and leading organizations are looking to uncover every possible way to boost their I.Q.—i.e., their innovation quotient.

IBM's recent Global CEO Study found that 69% of leaders believe they need to look outside their own organizations to prime the innovation pump. "Companies in all sorts of industries and markets are struggling to understand innovation, and looking for ways to drive more disruptive thinking," says Sara Armbruster, vice president, Steelcase WorkSpace Futures and corporate strategy. "External partners can be a catalyst for new ideas, but organizations also need to build an internal culture of innovation."

Innovation: A Physical Activity

As organizations seek to amp up their innovation quotient their biggest challenge is more likely information overload rather than a dearth of data on the process itself. There are over 55,000 books on the subject listed on Amazon, written by innovation gurus such as Clayton Christensen, Chip Heath, Tom Kelley, Larry Keeley and Roger Martin. Articles, speakers, consultants and workshops abound. Little wonder leaders feel daunted by the prospect of developing the right strategy to increase their innovation.

"IDEAS GET EVEN BETTER WHEN WE HAVE A TEAM THAT IS NOT ONLY DIVERSE PROFESSIONALLY OR ETHNICALLY, BUT ALSO GEOGRAPHICALLY."

Despite the plethora of information about the how, what and why of innovation, one topic that gets far less attention is where.

"Many organizations overlook the connection between the physical environment and innovation," notes Armbruster. "But space matters. It shapes the behavior of people, and creates the 'stage' on which innovation can be propelled."

"Innovation is a physical activity," notes James Ludwig, Steelcase vice president of global design. "It's dependent on human interaction, exploration and experimentation. That means the places that bring people together, physically and virtually, are critical to innovation outcomes."

As a result of the synthesis of over 15 years of multidisciplinary global studies, Steelcase has found that the physical environment has the power to augment–or undermine—the human interactions essential for success.

Sir Ken Robinson, an internationally recognized leader in the development of creativity, innovation and human resources in education and business, agrees. He asserts that culture is a driving force of innovation and everyone in the organization needs to be involved. "If you want a culture of innovation, there are certain conditions for it," Robinson says. "The culture

of an organization is about habits and habitats— creating a habitat where people feel their ideas are welcomed, empowered and rewarded, and creating a physical environment that develops new ideas."

Steelcase researchers, designers and marketing professionals explored these habits and habitats in a series of in-depth explorations. They also collaborated with leading think tanks to study innovation as the driving force of the 21st century from multiple perspectives. Partnering with the Berlage Institute in Rotterdam, they explored how physical environments can augment creative thinking. The company also conducted primary research in its corporate development center by staging a range of behavioral prototypes in which real working spaces were built out and employee behaviors were observed and evaluated using a variety of ethnographic techniques. Additionally, the team benchmarked six powerhouse organizations— Apple, Nike, IDEO, Stanford d. school, Nokia and Gravity Tank—top brands known around the world as leading innovators.

The Steelcase team studied a variety of innovation models, from internally focused to external partnerships. Throughout these diverse explorations they observed that most organizations approached innovation spaces with the bias that teams need to work in the same physical space. "That was a key takeaway from our studies—other organizations had defaulted to the position that innovation can happen in only one place, with co-located teams," notes Steelcase Director of Design Cherie Johnson. "But our experience at Steelcase has been quite different: We feel that in a global economy, ideas get even better when we have a team that is not only diverse professionally or ethnically, but also geographically. People who come to the innovation process immersed in the sights and sounds of other cultures bring a deeper layer of insight to the problem at hand."

The team went on to challenge the conventional belief that innovation happens almost exclusively among teams working in the same location. Instead, they embraced a belief that the physical environment can be designed to bring global teams together, and with greater results. "We think of our global teams as nodes on an innovation network," observes Steelcase Vice President of Marketing Allan Smith. "The physical environment can be designed to enhance the capabilities of each node, regardless of location." Ultimately, an intentionally designed workplace can amplify the performance of individuals, teams and the global enterprise, and lead to sustained innovation.

"Space matters. It shapes the behavior of people and creates the 'stage' on which innovation can be propelled."

Sara Armbruster, vice president, Steelcase WorkSpace Futures and corporate strategy

An Innovation System

Sara Armbruster.
Vice President Steelcase
WorkSpace Futures
and Corporate Strategy

The desire to innovate is universal across business and industries, and, in many ways it's become the critical issue of our time. One important idea Steelcase has embraced is that innovation is a system, not a linear process. You can't just come up with a good idea and pass it over to another team to keep it moving forward. Innovation is more like a complex adaptive system that's based on relationships, patterns and iteration. All of the pieces of this system interact and connect with one another, sometimes in unpredictable ways, and we believe that the physical environment is one node on a global innovation system.

A really important attribute of innovation spaces is to encourage cross-pollination, sharing of ideas and making thinking visible across different disciplines in the system. Sometimes people get really passionate about an insight or project and they're so focused on their content that it's hard to step back and say, "How do I share this? How do I make this visible? How do I get other people equally passionate and excited about these rich insights?" Because, no matter how important the idea might be, if we can't interact within the system, communicate and help other people engage around those insights, then innovation can't happen.

For an innovation system to flourish, people need to live in their content and be immersed in it. So we intentionally create spaces that that make it easy for people to swim and play in their own content, as well as content that may be evolving around them. Because a system can be unpredictable,

you never know where connections may occur, or where there's a really interesting question that one person is working on that might spark an idea in someone from a different discipline who's working on a totally different issue. It may seem like a paradox, but we want to be very intentional about designing spaces that create serendipity— unplanned interactions, so people will understand their own content but also have a larger sense of the whole.

Many organizations struggle to figure out how to bring the right people together in their innovation process. Our bias is that a system is healthier when it is diverse, and so we are committed to bringing global teams together in spaces that are enabled with human-centered technologies, that minimize distance. Gender, ethnic and professional diversity are all important. But geographic diversity allows a team to connect with an even greater range of experiences and insights. That ultimately makes the innovation system stronger and better able to respond and adapt to a changing world.

Insights on Innovation

In the synthesis of its research, the Steelcase team identified five overarching insights about the physical nature of innovation and the human behaviors that foster it:

Innovation is a direct result of creative collaboration. Creative collaboration is about forging something new—an innovation—and requires a team with a wide range of professions, diverse backgrounds and experiences whose economic function is to create new ideas, new technologies or creative content. Human interaction drives creative collaboration, and the physical environment has the power to augment and enhance those interactions, making them more valuable.

"Creative collaboration is a high-order process that helps foster innovation, and collaboration is about creating a shared mind," says Frank Graziano, part of the Steelcase team exploring innovation.

Innovation is ultimately about learning, and it's predominately a social process. People learn by working with others in a variety of capacities, and co-creating new things together is the highest form of learning and the highest form of collaboration.

Innovation requires a connection between sociology and technology. Technology is a powerful configuring force in the ways we work because we use it to drive information and knowledge. When it becomes unobtrusive and intuitive for users, technology allows people to share information equally and democratically, improve transparency and more rapidly gain a shared understanding and alignment.

"In the past we thought of technology as a way to free us up for more leisure time," notes Ludwig. "Today, instead of it freeing us *from* work, it's freeing us *to* work. It enables people to do more, and frees us up to think big."

Innovation is a team sport that, paradoxically, requires focused individual work to fuel collective creativity. With so much focus on the social aspects of innovation, organizations sometimes forget about the power of individual, concentrated work. In order to be a strong contributor to a team, individuals need the time and place to think and let ideas germinate. Physical environments that foster innovation provide a balance or both "WE" spaces that support creative collaboration as well as "I" spaces that support individual, focused work.

"As we began to understand the rituals of collaboration, we saw that contemplation and collaboration are codependent," explains Graziano.

Collaboration today is both physical and virtual. To truly take advantage of the diverse backgrounds and experiences of a distributed team interactions should be real-time for the team to be most engaged and productive. It's not just about passing work back and forth between time zones to take advantage of time differences and speed up development. Creative collaboration requires trust, which is built by teammates working together in real-time. The challenge is to eliminate "presence disparity"—those moments that occur when communication and collaboration are drastically reduced during conference calls or in poorly designed videoconference experiences.

Creative, generative collaboration happens in small groups. It often takes place in one-on-one or three-person subsets of the larger team. Even the larger team size should be carefully managed. The trick is to get the right set of skills and inclusion on the team, without weighing it down.

"It's important to balance diversity and scale. While a diverse set of experiences and skills is important, teams that are too large choke on their own complexities," says Graziano. "We have a general rule of thumb for the ideal team size—6-8 people— and we're also big believers in the power of dyads and three-person teams. We say, go for the most diversity you can get with the smallest scale."

From Smokestacks to Ideas

After years of extensive research Steelcase embarked on creating its own innovation center. Armbruster, along with co-sponsors Ludwig and Smith welcomed their teams to a former manufacturing facility, which was reimagined and redesigned to reflect the insights gleaned from their research.

The adaptive reuse of an underutilized manufacturing space is a metaphor for the changes Steelcase and other legacy industries have faced. "In the industrial revolution, one of the signs of corporate pride was the number of smokestacks rising from its buildings. Today it's the number of new ideas," notes Ludwig. "It's ironic that innovation in manufacturing enabled us to free up this space for a different kind of innovation."

The creation of a new innovation center was driven by the organization's need to effectively compete in an interconnected and interdependent world. "Like every other mature industry we have a business need to accelerate innovation," explains Smith. "We need to generate more creative ideas faster and bring them to market quickly. We decided we needed a physical destination that would foster the behaviors of an innovation culture and engage top talent in the process."

"WE NEEDED A PHYSICAL DESTINATION THAT WOULD FOSTER THE BEHAVIORS OF AN INNOVATION CULTURE."

"It was very intentional that we had just celebrated our 100 year anniversary," explains Ludwig, "and we asked ourselves, what will be the parameters for innovation in the next 100 years? "

"Innovation is a core business strategy for us," adds Armbruster. "We are asking people to embrace behaviors that lead to innovation, and that is hard work, especially in a globally integrated enterprise when teams who need to work together are not all located in the same place. It's important to balance the social aspects of innovation with the spatial and informational. The 325,000-square-foot/ 30 200 meters squared space is home to 267 people at the company's Global Headquarters in Grand Rapids, Mich., and also serves teams who are distributed around the globe. "Another key business strategy is to become a more globally integrated enterprise which means we have to leverage our talent around the world. We need our spaces to enable distributed teams to collaborate in real time," adds Smith.

What is Your Organization's Innovation Quotient?
21 key questions you need to ask.

Creating an innovation center

Research and Synthesis
Design Criteria
An Innovation Center Typology

1. Has your space been designed to help employees better understand the organization's strategy, brand and culture?

2. Have you identified the key behaviors employees need to adopt to propel innovation?

3. Have you designated a specific area for your innovation projects and teams?

4. Have you developed a global ecosystem of spaces that teams can use to promote innovation?

5. Do you have a feedback mechanism that signals the need for modification and adaptation?

6. Does your space intentionally promote cross-pollination of diverse people and ideas?

7. Does your space help build trust among global teams by allowing them to connect quickly and easily?

8. Are your collaboration spaces equipped with intuitive technology that makes it easy to display and share information with others?

9. Does your space make it easy and comfortable for remote team members to participate fully in work sessions?

10. Do your video conferencing configurations allow remote team members to see content in the room and on the walls, and to hear everyone in the room equally?

11. Are there informal areas to video chat with 1-2 team mates from other locations?

12. Do you have the right balance of spaces for concentration and spaces for creative collaboration?

13. Do you have a range of spaces from which people can choose to work based on their preferred work style or the tasks they need to accomplish?

14. Does your workplace offer project rooms that teams can configure for their own needs and own for the duration of the project?

15. Are there a sufficient number of collaboration spaces for small groups of 2-3 people?

16. Do you offer a wide range of posture options so employees can sit, stand, perch or walk throughout the day?

17. Are you fully leveraging your vertical real estate as a vehicle for communication, both analog and digital?

18. Can your vertical real estate adapt to the cycle of your innovation projects?

19. Do your collaboration spaces offer a balance of acoustical privacy with visual transparency?

20. Do your collaboration spaces minimize presence 'disparity' for remote participants?

21. Do your informal areas allow employees to toggle between work, socialization or respite?

To drive growth and leverage the strength of a globally integrated organization, it was critical that the team solved for new ways of working. Steelcase knew it could develop more innovative ideas if it effectively engaged a diverse group of thinkers, located around the world. The new innovation center needed to consider the needs of employees who were joining the team virtually and try to minimize or eliminate any disparity they might experience. All of the key ingredients of global creative collaboration needed to be thought through, from IT systems to organizational culture.

"WE NEEDED TO MAKE DISTANCE EVAPORATE."

"We approached the project from a user-centered perspective on what we need as an organization that will help us innovate," explains Patricia Kammer, one of the researchers on the project. "A big question was how do we design space in a way that will encourage cross-pollination, sharing of ideas and making thinking visible across different disciplines?"

"From the start, this project was about connecting our global network. The new space would be just one node on a larger network," says Kammer. "We needed to make distance evaporate."

Today 75% of Steelcase's product development projects are global, with design studios in Europe, Asia and North America, plus external partners. John Small, Steelcase's director of design in Europe, and John Hamilton, Steelcase's design director for Asia Pacific, lead multi-national teams — French,

German, Spanish, American and Chinese team members work in collaboration with each other as well as the research and marketing teams . It's important to put everyone on a project team "in the same room" virtually whenever needed, notes Small. Team interactions also increase the likelihood that individuals will reach out to each other directly to solve problems. Teams are in touch daily via telepresence as well as through other technology tools to collaborate. "Distance shouldn't be considered a barrier," Hamilton says.

Research and Synthesis

Steelcase researchers studied the process and the role space plays in innovation that led to the development of design criteria.

detailed information ▶

- 🔒 Open/Secure
- 🏠 My home/Our home
- 🤝 Work/Socialize
- 👤 See me/Hear me
- 📦 Content/Objects
- 👥 Team work/My work
- ✴ Human/Technology

1 observation
2 interviews
3 secondary research
4 bench-marking

- 6 DESIGN CRITERIA
- 1 FOUNDATIONAL RESEARCH
- 2 INTERNAL RESEARCH/PROGRAMMING
- 3 TYPOLOGIES
- 4 BIG QUESTION
- 5 EXPERIENCE PROTOTYPES

PROCESS

Prototype 2
Prototype 1

rapid iteration

Model spaces test how environment and technology concepts interplay with day-to-day interactions

rapid iteration

" How does Steelcase innovate?

" How can we make ourselves better through space?

- ▶ benchmarking
- ▶ space modelling
- ▶ interviews
- ▶ observation
- ▶ visual narratives
- ▶ journey maps

defining work group ●

" How can the collaborative activities and team cohesion of globally distributed product development teams be supported?

A new approach for thinking about innovation spaces

20% neighborhoods
40% project zones
21% communal resources
2% links
17% labs

Design Criteria

The team identified a number of tensions and complexities the space needed to address. They asked themselves a series of strategic questions that would steer their design direction:

Open/Secure
How could the new space support the need for transparency while balancing the need to incubate very fragile ideas in their infancy?

Work/Socialize
Could the space create an atmosphere that is both highly productive and active in the pursuit of innovation while fostering social interactions that help develop trust?

Content/Objects
Does the space help concepts and ideas become visible and tangible to others? How can it also support three-dimensional prototypes and artifacts?

My home/Our home
How can space enable a shift from thinking about "home bases" assigned to individuals to the idea of "homes for projects"?

Team work/My work
What's the best way to bring people together and help them connect, and balance that with the needs of individuals to contemplate and concentrate on their focused work? How can the space support individuals to transition easily between team and private zones?

See me/Hear me
How can we create a positive experience for both physical and virtual presence in the space? Can we allow people to see and be seen, hear and be heard regardless of where they are working? Can we provide contextual awareness for remote participants and equal access to technology controls?

Human/Technology
How can the environment leverage technology to augment and enhance human interactions?

An Innovation Center Typology

As a result a new typology focusing on individual and collaborative work was developed which clearly communicated the expected behaviors.

SHARED

I ——— WE

OWNED

Mobile Neighborhood
Front Porch
Project Studios
Lab
Strategy Room
Enclaves
Neighborhood Cafe
Innovation Theater
Lab
Technical Professional Hub
Mobile Neighborhood
Enclaves
Exploration Shop
Prototype Studios
Project Studios
Front Porch
Lab
Guest Interaction Rooms
Resource Center
Guest Interaction Room

Technical Professional Hub
Benching workstations provide a shared home for engineers, many of whom are assigned to multiple project teams. Having a setting where it's easy to exchange technical information and knowledge with others in the same profession allow workers to drill deep into each other's expertise, increasing the likelihood that specialized insights get applied broadly across multiple projects in different product categories.

Strategy Rooms
The design and marketing teams each have a strategy room that functions a lot like a clubhouse or den. It's an intimate, shared place to meet and keep information that's particular to each discipline. These rooms are well equipped for whiteboarding, information displays and videoconferencing.

Mobile Neighborhoods & Enclaves
Open-plan neighborhoods and 16 enclosed enclaves, all conveniently adjacent to project studios, provide individual or small group spaces for workers away from the activity of the project studios. Each enclave is equipped for collaboration via videoconferencing, online chats and digital file sharing. The behavioral prototype proved that enclaves without these tools simply don't get used.

Exploration Shop & Prototype Studio
Because rapid iteration of ideas is fundamental to innovation, product prototyping areas are directly adjacent to the product studios and visible through glass walls. This is where early concepts can be quickly roughed out from scratch. In the adjacent prototyping studio, ideas are turned into models. Transparency and proximity help teams develop trust and early alignment.

Guest Interaction Rooms
Separate, closed rooms, right outside the innovation center, allow teams to host external partners, customers and designers and engage them in the innovation process. This allows ideas to be incubated inside the innovation center, and then be shared externally when appropriate. These spaces can be adapted to support a range of experiences. These rooms also have videoconferencing capabilities to support virtual presence of remote teammates.

Front Porch
Just outside the project studios, front porches serve as touchdown spots where small groups or individuals can step away for focused work, while still being visually accessible to the team. A technology screen integrated in each front porch provides constantly-streaming data about the project, so anyone can get acclimated quickly before entering the studio.

Neighborhood Café
Socialization and respite are the priorities of this large communal zone for refreshment and informal engagement. Whether coming here to chat with a coworker or relax and think, this place recognizes the human side of work, including the importance of building the social trust that's the currency of successful collaboration. Workers can enjoy the seasons, either in front of the fireplace or on the adjacent outdoor patio in the summer. Distributed teammates can join the conversation with telepresence at the media bar.

Labs
While project studio ownership rotates after a project ends, three specialized areas within the space are permanently assigned to teams who serve as consultants to the project teams, but typically aren't assigned to one. A variety of furniture applications within each area supports a range of work processes and postures.

**A Palette of Place,
Posture and Presence**

The new innovation center offers a range of spaces that people can choose from, depending on the type of work they need to do throughout the day, and encourages them to move throughout the space rather than stay in one place. Everything is transparent: glass walls allow workers to see their ideas progress from concept to reality. Walls have become the new worksurface, and information lives on vertical planes where everyone can see it. Areas for respite, both indoors and outdoors, allow employees to get away without going away. The space tells workers that it is ok to stand, lean, perch, lounge or work in any posture that is comfortable and helps them to stay energized and focused. The environment encourages people to experiment and try new things.

"We wanted to have a place where we could make and break things," says Ludwig, not entirely tongue-in-cheek. "We wanted to help move ideas from the computer screen to prototypes as quickly as possible. Design is a very physical process."

"The space is not overly prescribed," says Johnson, whose design team partnered with Shimoda Design group for the interior architecture. "Forces of change happen over time. This is a simple architecture that gives humans access to natural light, daylight views, the simplicity of a raised floor that has modular power and under-floor air delivery. It's a simple floor plate designed for evolution, so we can adapt it and allow the building to 'learn' with the people who use it."
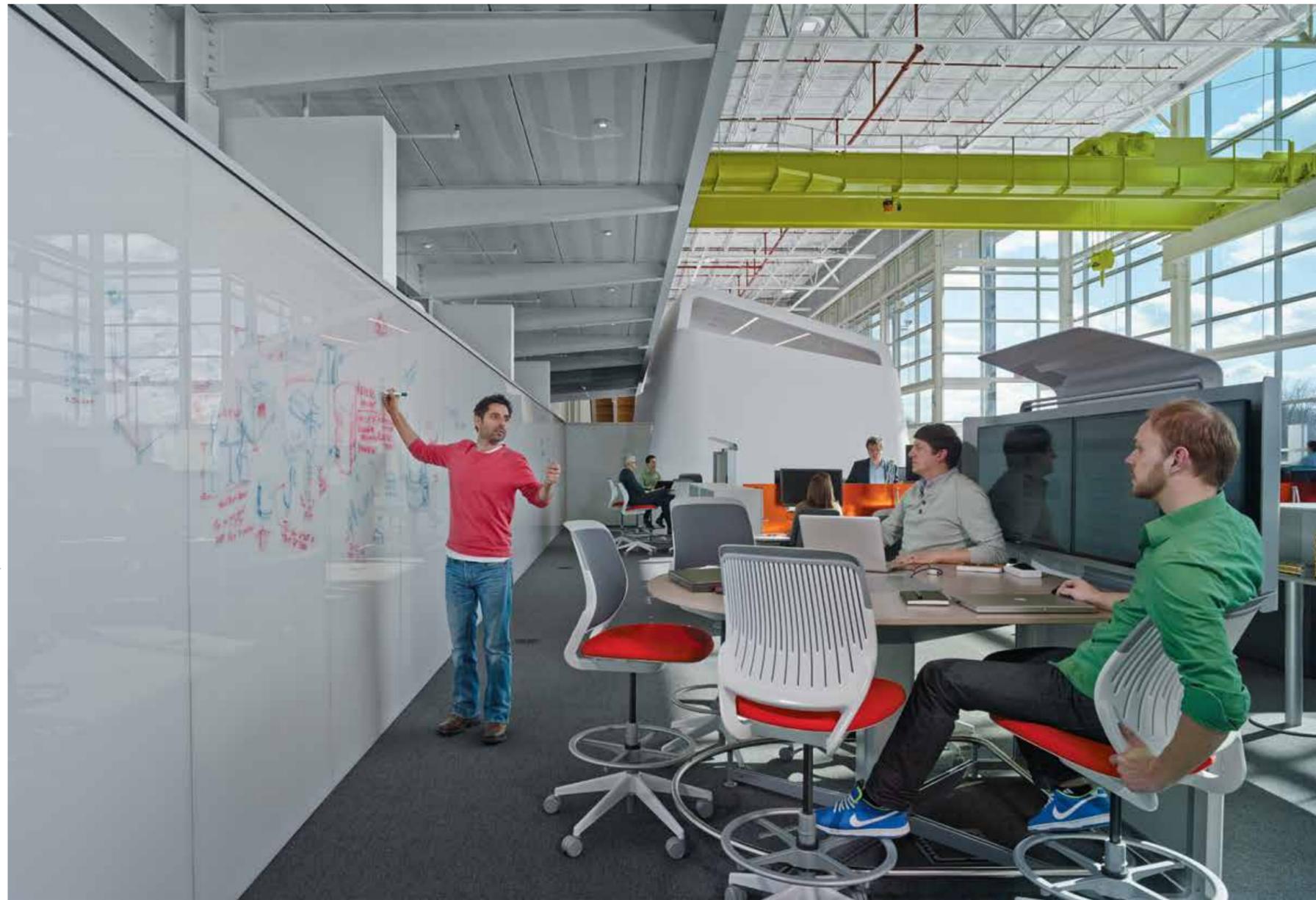
Open plan collaboration areas (adjacent to the Professional Hub) are well equipped with whiteboards and technology tools, such as media:scape, allow the industrial design team to easily connect and collaborate.

Benching workstations in the
Professional Hub provide
home bases for the engineers
and industrial design team.

The Mobile Neighborhood provides
both individual and small group
spaces for workers away from the
activity of the Project Studios.

Workstations in the
Professional Hub allow
the easy exchange
of technical information
and knowledge.

A total of 16 Enclaves are adjacent
to the Project Studios and
equiped for collaboration via video
conference equipment,
online chats and digital file sharing.

Homes for Project Teams

As the team considered how to best support a culture of innovation, one of the paradigms they needed to shift was to move from thinking about home bases for individuals to homes for project teams. This meant they focused on spaces that would support team-based work, flanked by front porches to support individuals and small groups and back alleys where work moves from concept to reality. The project studios, at the heart of the center, were allocated 40% of the overall footprint and are the places that product development teams call home.

> **"IN THE PAST, IF PEOPLE WERE AT THEIR DESK WORKING, THEY WERE CONSIDERED PRODUCTIVE. NOW THE PROJECT STUDIO IS WHERE MOST OF THE WORK HAPPENS."**

The studios have been carefully planned to support remote team members as well as those who are physically present. "During the behavioral prototype stage, we saw that people tend to behave in a very forced and formal way during telepresence meetings. They sit up very straight, as if they're TV news anchors, and are reluctant to move," explains Ritu Bajaj, a Steelcase researcher. "Having a variety of applications in the room, such as café tables and lounge settings, enhances informality, which makes for much better collaborative experiences."

Every studio features videoconferencing in a multiscreen format, which assures people can see each other and their content. The room supports different configurations and views, including close-up and one-on-one exchanges where gestures and facial expressions transmit clearly, improving understanding and contextual awareness. The studio layout assures everyone can be on camera during videoconferences, and ceiling-mounted speakers ensure audio clarity. There are zones in the studios where workers can break away from active collaboration but stay nearby to rejoin as needed.
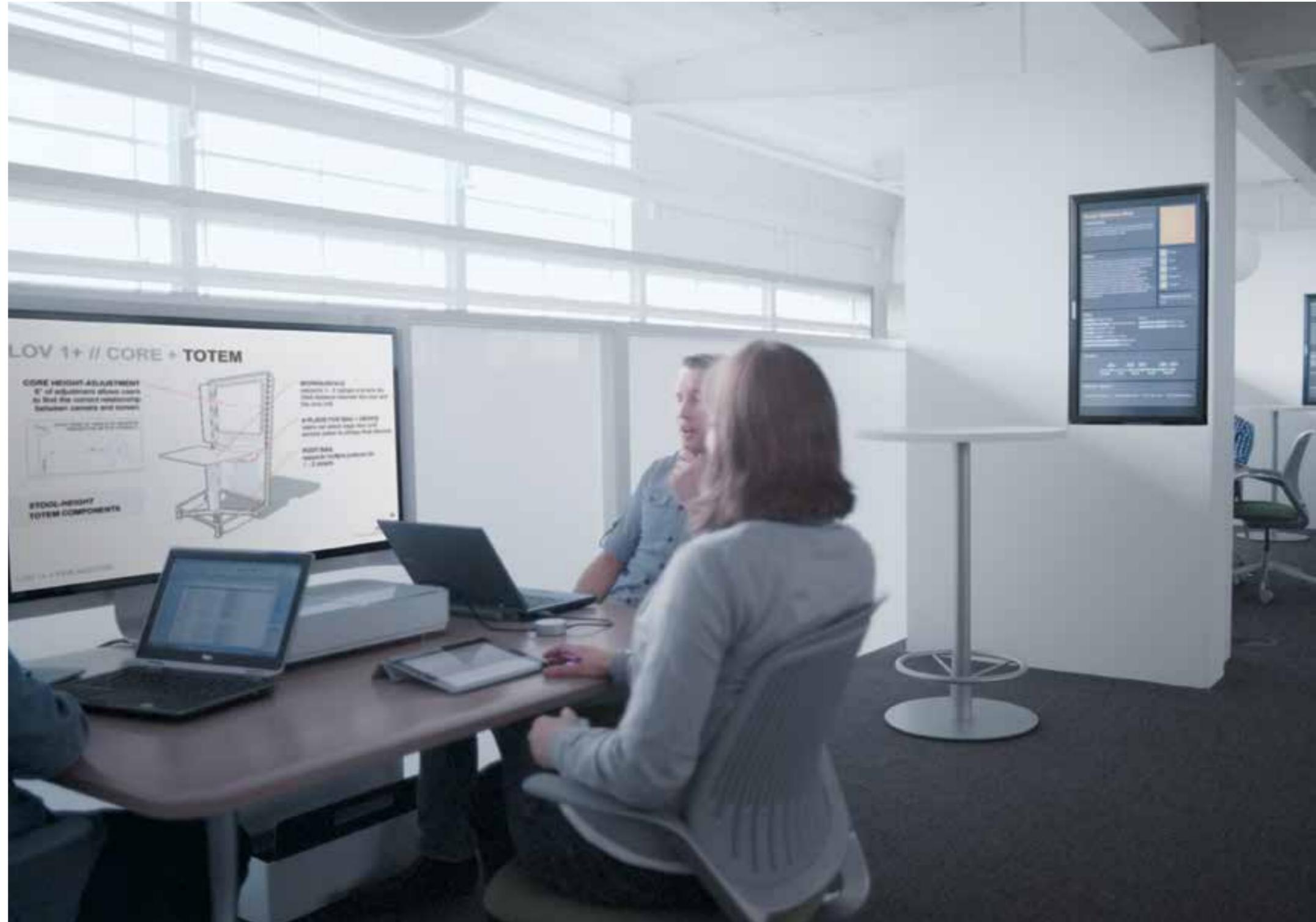
The Front Porch area outside each Project Studio serves as a touchdown space for these members of the Integrated Technology team. Screens provide constantly streaming data about the project.

The innovation center includes 13 Project Studios of varying sizes. Each Project Studio is a smart space which seamlessly integrates architecture, furniture and technology to support both physical and remote participants. The vertical plane hosts technology tools to support large scale display so all teams members can easily see and access content.

Project studios are configured in a variety of sizes—small, medium and large. The research confirmed that small teams don't work well in large rooms: There's too much distance between people and walls. This is an issue because the vertical plane is important for communicating and displaying information. Information persistence—analog and digital—facilitates understanding and creates all-important team memory.

As team members carry more of their information on small, mobile devices, the vertical planes needed to become zones that host technology to support large-scale display so teams can gather around the content, understand it together and build on it. When teams are working this close to these vertical planes, acoustical privacy becomes critical. And as projects are completed and new teams form, it was important that the vertical planes could be easily reconfigured for different size spaces.

All of the spaces offer a palette of posture—standing, lounging, perching and walking. This is particularly important during very long telepresence sessions, which can be energy-draining. Steelcase researchers observed "video fatigue" as a common malady among distributed teams and found spaces that encourage movement and a variety of postures could help ease the pain.

Because different teams work in different ways, each has the opportunity to select from a variety of furniture applications when they move into a studio. In this way, they can configure the space to their activities, preferences and tools, celebrating their processes and claiming the spaces as theirs for the duration. Because the studios are elastic and continuously evolving spaces, when the next team moves in, they can choose what's best for them.

Designers like to think with their hands, so prototypes populate the entire innovation center. Prototypes give ideas physicality, so each project studio has ample space to stage, debate and store pieces, parts and even whole models. Teams can literally put things together and pull them apart to move ideas forward.

"We've seen project spaces that are so pristine that they discourage the ad hoc nature of creativity," says Kammer. "Innovation through creative collaboration, if done authentically, is a visually and even socially messy process."

The Back Alley provides a space where work moves from concept to reality.

"As workers live and work in this new space, as new technologies emerge, the innovation center's agile design will also adapt."

Cherie Johnson,
Director of Design

The innovation center, like all Steelcase spaces, is a working prototype, in which the organization implements its latest ideas, learns what works and what doesn't, and modifies the space accordingly. It's an iterative process that is at the heart of design thinking, and the very act of innovation itself. This space is designed to iterate and allow learning, which is the essential ingredient for innovation. Over the coming years, as workers live and work in this new space, as new technologies emerge and are adopted, the innovation center's agile design will also adapt.

A principle that will remain constant throughout any future evolutions is that innovation is dependent on human interactions. The physical environment has the power to augment those interactions that are essential for innovation, and will be increasingly global as distance gradually evaporates. Places will serve as the stage that brings together an organization's strategy, brand and culture and makes them tangible and actionable for employees. Intentionally designed places can amplify the performance of individuals, teams and the entire enterprise. ◐

7 Habits of Innovation

In preparation for their move into Steelcase's new innovation center, a cross-discipline team developed a manifesto of sorts for new residents. **The aim: accelerating insights to innovation.**

Raise central questions

Ask big questions, and then start digging in. It can be intimidating to work in uncharted territory without familiar paths to follow, or with no right or wrong answers. But accept this ambiguity as a part of your process and go with it. Question your assumptions and ask crazy, lofty questions…then explore these mysteries by breaking them down into focused pursuits.

Be observers, listeners, and learners

We are all explorers of ideas, and we need to uncover the edges of what we already know so that we're able to step into new territories. So roll up your sleeves, get dirty and take risks to venture into the unknown! Covering a lot of ground quickly will help you uncover the most exciting opportunities to take further.

Make ideas visible

Get ideas out of your head—make them visible! Write it, doodle it, hack it, build it, act it out, make a video, whatever. Ideas are useful only to the extent that they can be shared, evaluated and built on by others. If you have trouble finding a way to express or visualize your idea, team up with someone who can help you get your ideas out in the open.

Share and co-create

Reach out to foster connections and meaningful relationships both inside and outside of the company. Inspiration, opportunities and partner-ships can come from anywhere; they feed your intellectual appetites and assemble a more dynamic community. So, spark some interesting and even provocative discussions by inviting more diverse voices into your conversations. Mix it up—great ideas can come from unexpected places!

Make others successful

A great measure of your success is how well you have made others successful. Build an environment of trust and respect around you. Recognize your colleagues, encourage their contributions and build on their ideas. Celebrate courage, and create more opportunities for the people around you to shine.

Be an optimist

Enthusiasm is contagious. We all share an innate optimism in the very work that we're doing; our collective efforts create solutions that can improve people's lives and build a healthier world. Openly embrace this enthusiasm, and listen to constructive criticism—it makes ideas stronger, and doing so also gets others excited about what you're creating together.

Fail faster to succeed sooner

Learn, rinse, repeat. Don't wait to try and get everything right the first time. Even if something doesn't work as expected, we still learn from it. Rapid prototypes gradually grow your understanding of the big problems that we're trying to solve, piece by piece. And the more things you try out, the more you learn—faster!

Insight-led Solutions

How to choose the right project studio for your team:

Innovation requires more than just the right culture, process or tools; it takes the right space to boost and sustain teams over time and across distance.

Steelcase researchers and designers have found there are distinct behaviors that drive innovation, and the physical environment can be designed to augment human interaction and foster those behaviors. That's why we created Project Studios—a set of active arenas where co-located and distributed teams engage for hours at a time.

Each Project Studio is a smart space that seamlessly integrates architecture, furniture, and technology product platforms. These spaces are designed as malleable tools to be shaped and continually learned from, our platforms are designed to evolve and keep pace to host new technologies and user needs in the future.

Project Studios include a front porch, center arena, and back alley. Each zone translates observational research and insights into a dynamic spatial experience. These high-performance spaces welcome and inform users when they arrive, support how they assemble and array information along horizontal and vertical planes, enable aside conversations between team members when needed, and allow people to adjourn without disrupting others.

To learn more about Project Studios and their impact on innovation:
steelcase.com/projectstudios

1. YOUR TEAMS ARE:

Co-located ●————————— Distributed

Forces at Work: Mixed presence
simultaneous co-located + distributed presence of people, places, objects and information

Networks & Data — Work

2. YOUR SPACES ARE:

Owned ————●———— Shared

Forces at Work: Short-term appropriation
sharing property vs. owning—for short periods of time

Community & Culture — Work

3. YOUR CONTENTS ARE:

Physical ———●———————— Digital

Forces at Work: Physical-virtual braiding
physical + virtual content, space and time become seamlessly intertwined

Devices — Work

Associated Trend Categories

Community & Culture
Forces at Work: demographics, distributed workers and content, best place, co-working, colleague and social networking

Devices
Forces at Work: physical-virtual braiding, amplified intelligence, human interface, presence disparity, BYOD, voice and data access

Networks & Data
Forces at Work: mixed presence, information access and storage, collective intelligence, individual control, context aware computing

Work
Forces at Work: short-term appropriation, well-being, location diversity, work-life balance, contingent and knowledge workers, cocooning

How to plan project studios that support co-located & distributed teams:

PLANNING PRINCIPLES:

Arrive: a billboard presents current project status to help teams transition before meeting; consider a video "wormhole" to connect with distributed team members for social exchanges prior to meeting

food and refreshment and personal belongings area supports social behaviors that build trust among teams

Array: abundant analog & digital vertical display surfaces help teams think "out loud" while generating a shared mind.

Assemble: a stage for co-located & distributed teams to experience physical content together, e.g. prototypes

Aside: supports short-term tasks and small group collaboration in close proximity to the center arena

Assemble: allows all participants to contribute, extract and evolve ideas equally.

Stool-height tables encourage movement during long meetings and allow for smooth transitions when on and off video

Wall configurations and materials provide visual access with glass while maintaining acoustical separation between settings

Adjourn: a setting for impromptu social interactions, e.g. exchanging next steps or schedules; large-scale space division supports personal & group storage needs; place to bring in physical prototypes

Front Porch | Center Arena | Back Alley

DESIGNING FOR THE

HUMAN/TECHNOLOGY

TENSION

BY
ALLISON
ARIEFF

The editors of 360 Magazine invited Allison Arieff, former editor-in-chief and founding senior editor of Dwell, content strategist for the urban planning and policy think tank SPUR and a contributing columnist for The New York Times, to visit our Global Headquarters and view new solutions designed to address the tension between humans and technology in the workplace.

I was invited to Steelcase earlier this year to preview some of the company's new innovative solutions and learn what they've been doing to address the changing nature of work. It's obvious how dizzyingly-fast technological changes have completely changed the ways we work. Today we're working with multiple devices that have changed not only our work styles, but even our postures. Smaller devices are causing us to seek larger-scale places to share our information. And as video capabilities are ubiquitous in our technologies, video is rapidly becoming a dominate form of communication. Today we even use technology to locate the people we need to work with. At one time many would have concluded that the ease and ubiquity of the cellphone pointed to a future where the office would be obsolete. If everything could be done in the palm of your hand, from anywhere at any time, why did you need an office at all?

Mobility is indeed ubiquitous but not in the way many thought it would be. People can—and do—work from anywhere but they still come to the office. Recently business leaders have been asking their people to spend more time at the office, recognizing the workplace is where real collaboration and innovation occur. But what the office has to do now is very different from before because people are not working the way they used to. Everything from the way they sit to the tools they use have changed. The workplace should no longer be based solely on—or designed around—rank and hierarchy. And at a time when business leaders are questioning how do you engage people and drive innovation, designing spaces as a destination where people want to be becomes more important than ever.

That was affirmed in my mind the minute I walked into Steelcase's WorkCafé in their global headquarters building. Formerly the company's cafeteria space, WorkCafé is an on-site third place that integrates working, dining and networking in a welcoming, inspiring and wired environment where employees can choose how and where they work. The space was bustling with people—all there for different reasons: to meet with others, socialize, grab some food or just work alone.

"This is what workers want and need," says Dave Lathrop, Steelcase's director of Research & Strategy. "People have been empowered to own much greater chunks of the decisions about their work life and this is having a whole raft of effects on the work experience."

The WorkCafe demonstrates how Steelcase continues to think about space differently to empower and engage people at work. They use a human-centered design approach that allows them to understand user behavior and explore, ideate and create the best solutions that help to amplify the performance of people, teams and the organizations they work for.

It seems obvious—design products with the intended user in mind—but just as form doesn't always follow function, too often products are designed without adequate regard for who will be using them and how. Instead—unfortunately—design often forces the user to change natural behaviors to use the product.

With human-centered design, it's all about the needs of the user. Steelcase works to understand people holistically in their natural environment. Their needs, wants and aspirations are a focus at all stages of Steelcase's design and development cycle. A passion for building things with intrinsic value is entrenched in the culture. Says Steelcase's anthropologist Donna Flynn, a leader in the WorkSpace Futures team, "Human-centered design is not just a methodology; it's a mindset. It's not just a single team that's focused on the user. It's pervasive across the organization."

Take technology. It's the leading driver of change in nearly all aspects of our lives and certainly in the ways in which we work today. To keep pace with that change and get out in front of it, Steelcase is not only looking at what people are doing today but what they'll be doing in the future. Says Flynn, "We're always trying to think about the 'far' horizon. The things around us change and those things drive change over time. But our core humanness doesn't change over time. So Steelcase looks at how technology is evolving, for example, the way people sit and move and the different postures we assume."

"We're all learning together. All of these things are unfolding in front of us—that drives our innovation," says Lathrop. "In the end, you have to design with the understanding of what people do in the fullest sense."

And that's exactly what Steelcase aims to do with everything it creates. The solutions Steelcase asked me to view have been designed to help organizations create destinations that will augment human interactions. Steelcase believes you can create these destinations by creating what they call an Interconnected Workplace: one that offers workers choice and control over where and how people work for both individual and team work; a range of settings that support various workstyles; a range of solutions that encourage movement and various postures; and environments that address the needs of both co-located and distributed teams.

GESTURE™

Not so very long ago, ergonomists advocated for one primary posture in relation to a desktop computer. But nowadays our "computers" are not limited to the desktop. We have work power in our tablets and phones so that we are no longer tied to a monitor on a desk.

It's not just our gadgets that are different: We look at our tablets and phones differently than when we look at the desk monitor and this introduces more working postures. The interfaces of the tablets and phones are smaller and the devices are typically held in our hands or laid on a surface. The devices allow us to separate ourselves from the desk and change position…but they've also dramatically changed the "correct" posture for working.

"What has not changed is the need for us to adopt healthy postures," explains ergonomist Carol Stuart-Buttle who has been involved in Steelcase's user research. "Providing an environment that gives the opportunity to be in a comfortable, supportive position helps make that a possibility."

So if we're not working the way we used to—our tasks are different, our technology radically transformed—what about our chairs? Until now, they've stayed pretty much the same. They may look better, they may even be more environmentally responsible but they're no longer designed for the way we work—and sit—today.

"WHAT IF WE COULD DESIGN A CHAIR THAT WOULD ENCOURAGE MOTION RATHER THAN FORCING THE BODY TO HOLD A POSE?"

This is something I've certainly experienced. As a writer, I spend a lot of time in front of a computer screen and have increasingly felt the ill effects of sitting in the wrong chair. Finding an ideal ergonomic state is no easy undertaking—I am always wondering: is my computer monitor positioned correctly? Are my wrists properly supported as I type? Am I slouching?

I saw how my concerns could be addressed when I had the chance to experience Steelcase's Gesture, a new sitting experience designed to address the impact of new technologies on the human body and the physiology of work. Whether I was on the phone, texting, or typing or sitting up straight or (I'll admit it—I do it) slouching, the chair responded to the movement of my body. I was supported even when reclining. The chair is designed to put less stress on the body. I felt supported no matter what task I was doing. I got the sense that this chair was a system, just as my body is a system, both with parts that work in concert to achieve optimum effect. When I sat down and felt the lower back support I'd been lacking for decades in any number of "iconic" office chairs, my first thought was "why didn't anyone think of this before?"

Two-and-half years ago, Steelcase assessed the seating options it offered, says General Manager of Steelcase's Seating Group, Ken Tameling. "Our initial take had more of a bias that "the world does not need another chair," he explained. And so the company decided to commission a major posture study to help determine whether changes in work and technology necessitated a rethinking of the chair or not.

GLOBAL POSTURE STUDY

The Draw
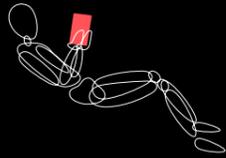
The Trance
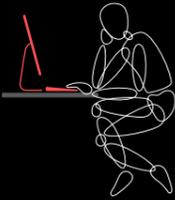
The Multi-Device

The Smart Lean

The Swipe
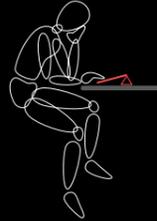
The Strunch

The Text

The Cocoon
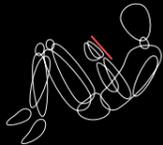
The Take it in
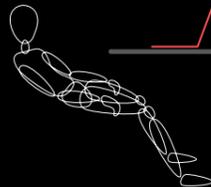
The human body—my human body—doesn't want to be in one posture all day, it wants to move—and should. We've all read the studies. Sitting for long periods is terrible for us, with adverse effects on everything from heart health to life expectancy. But what if a chair could counteract some of those negative affects?

Steelcase undertook a rigorous and wide-ranging Global Posture Study to answer this question. The study, like all Steelcase research projects, follows six key steps: to understand its users, observe their behavior, synthesize findings, realize ideas, prototype concepts, and finally, measure performance. The posture study acknowledged that technology is the single greatest force driving the changes in the way we work, live and behave. However, while technology continues to advance, no one has designed for the impact of these technologies on the human body, or for the physiology of how work happens today. This presented a tremendous opportunity for Steelcase: The sitting experience had changed with technology but the chair hadn't changed along with it.

One major finding of the posture study, which included 2,000 people in 11 countries around the globe, was that a wide range of postures were being used, fully nine of which had emerged as a result of newer technologies. Most surprising, and unsettling, says Tameling was that many of these postures, including the nine, had people in pain. People were not being supported appropriately in these postures—they were "making do". The research affirmed that the world did in fact need another chair but one that was fundamentally rethought.

The user research also indicated "extreme sizes on the rise." Observational and medical research showed an increase in the both very small and large people in the workforce. The diversity of body types seen in the workplace is occurring just as many companies seek to optimize their real estate, which typically means smaller individual workstations. So the question here became 'how can a seating solution work for a higher percentage of smaller as well as larger people in a smaller footprint?'

Also revealed in user research were clear differences in postures by generation. Gen Y often used a deeper recline than the other generations, for example. Accordingly, a new chair would need to support a deeper recline than had traditionally been done while also allowing the user to be engaged with their technology. "The body follows the eyes, so if the eyes look down at our devices, then the body hunches over," explains Tameling. "We needed to determine how to best support this while allowing people to sit in a range of healthy postures—including the deep recline-without slouching or hunching."

Finally, the posture study showed that people are using a wider range of spaces, and are in meetings longer than ever. The challenge was: how to create a new sitting experience that could work in a variety of spaces and be easily adjusted for the next user, who often would be very different physiologically from the previous user?

"The user research—in particular the results of the posture study—was the key driver for the creation of Gesture," explains Tameling. "It led us to ask some key questions: 'What if we could design a chair that would encourage motion rather than forcing the body to hold a pose? What if we could design a chair that augments our experience with technology rather than gets in the way of it? Simply put, why not create a chair as advanced as today's technology?'"

V.I.A.™

VERTICAL INTELLIGENT ARCHITECTURE

The workplace has become a real workhorse. It's no longer just a place where people go to do their job. It's constantly evolving, reacting and responding to its occupants. It's getting denser. It is being used for more hours in the day by more people in increasingly differentiated ways. It can't just be a place where work gets done, it must also optimize real estate; enhance collaboration; attract, engage and develop employees; build brand and culture; and support wellbeing.

That's a tall order, and many of the tools in the traditional workspace design arsenal may not be up to the task. Take perhaps the most seemingly mundane and often overlooked asset: the wall. What does a wall do? What is it for? It divides. It's often blank, often stubborn. And it's static. It's an integral part of any building but is it living up to its full potential? Steelcase wondered, What if a wall could do more? What if it could be as flexible and dynamic as the work cultures its meant to support? What if it could express brand identity while also providing acoustical privacy? As people collaborate more, what if walls become the new worksurface?

"WHAT IF A WALL COULD BE AS FLEXIBLE AND DYNAMIC AS THE WORK CULTURES ITS MEANT TO SUPPORT?"

"The vertical plane is underutilized real estate in most offices," says Allan Smith. "Many people drive smart cars in which they can display content on a screen with only a gesture. Then they come to offices where the walls are dumb by comparison. Looking to the future we see much more intelligence integrated into the vertical plane."

Enter V.I.A. (Vertical Intelligent Architecture), which not only defines space but redefines the role vertical real estate plays in the workplace. "There is no product more essential to creating an interconnected workplace than V.I.A.," explains Brian McCourt, sales director, architectural products. "It helps to think about the workplace as an ecosystem, or a palette of places... which is simply a range of diverse spaces. These spaces serve different purposes, support different activities and provide different tools. The importance of the ecosystem is that it allows people to move freely from completely private spaces such as an enclave, to semi-private spaces such as a project team room, to completely open spaces like a WorkCafe. This freedom is necessary so people can work with right levels of privacy, access to technology, and proximity to others."

V.I.A. helps improve the quality of interactions because it offers true acoustical privacy, allowing people to work without disruption or worrying about disrupting others. Technology integrated into V.I.A. also augments interactions by making it easy for teams to move their information from personal devices up onto a large scale display, helping them to build a shared understanding of their content. V.I.A. provides a sense of permanence with the speed and design flexibility of a relocatable wall. Walls aren't going away—they're just being asked to do more things.

"Clearly what we are seeing is a shift in the way people will communicate, collaborate and use technology in the future," says McCourt. "In the future there will be three primary types of technology: this includes powerful handheld devices, cloud computing, and large scale architectural displays. Thanks to the efforts of companies such as Microsoft, Dow Corning, Oblong and Cisco we will have intelligent rooms that will self-configure themselves around people, technology and process."

"Imagine walking into a room which recognizes who you are by your mobile device, configures the room to your lighting and temperature preferences, pulls your information off the cloud (because that is where your data will reside in the future), and allows you to begin collaborating with others. By simply using an interface such as gesturing you will be able to display and control your information on the architecture. Now many of these technologies do exist today in one form or another... however, it's not too far in the distance when they all come together to create these intelligent rooms," says McCourt.

Technology-enabled architecture will be required to support intelligent rooms. In the future walls will not just define private offices... but rather define "private experiences", explains McCourt. These experiences will be around videoconferencing, technology, collaboration and privacy. So clearly there will need to be a shift in the planning pendulum to provide more choice around levels of privacy for both teams and individuals in the future. In this rapidly evolving scenario, the vertical plane doesn't just divide one space from another; it will now create new spaces and new surfaces. It will support data sharing, technology and furniture.

What's most exciting about V.I.A. is not just what it can offer today but that it's been created to anticipate future needs. Technology, as we all know, changes fast. This is a product designed to accept new technology as it evolves: "future-flexibility " is built-in. Soon, gesture-recognition will be available, for example, and one can only imagine the myriad other possibilities on the horizon.

MEDIA:SCAPE®
TEAMSTUDIO™
KIOSK™
VIRTUAL PUCK™
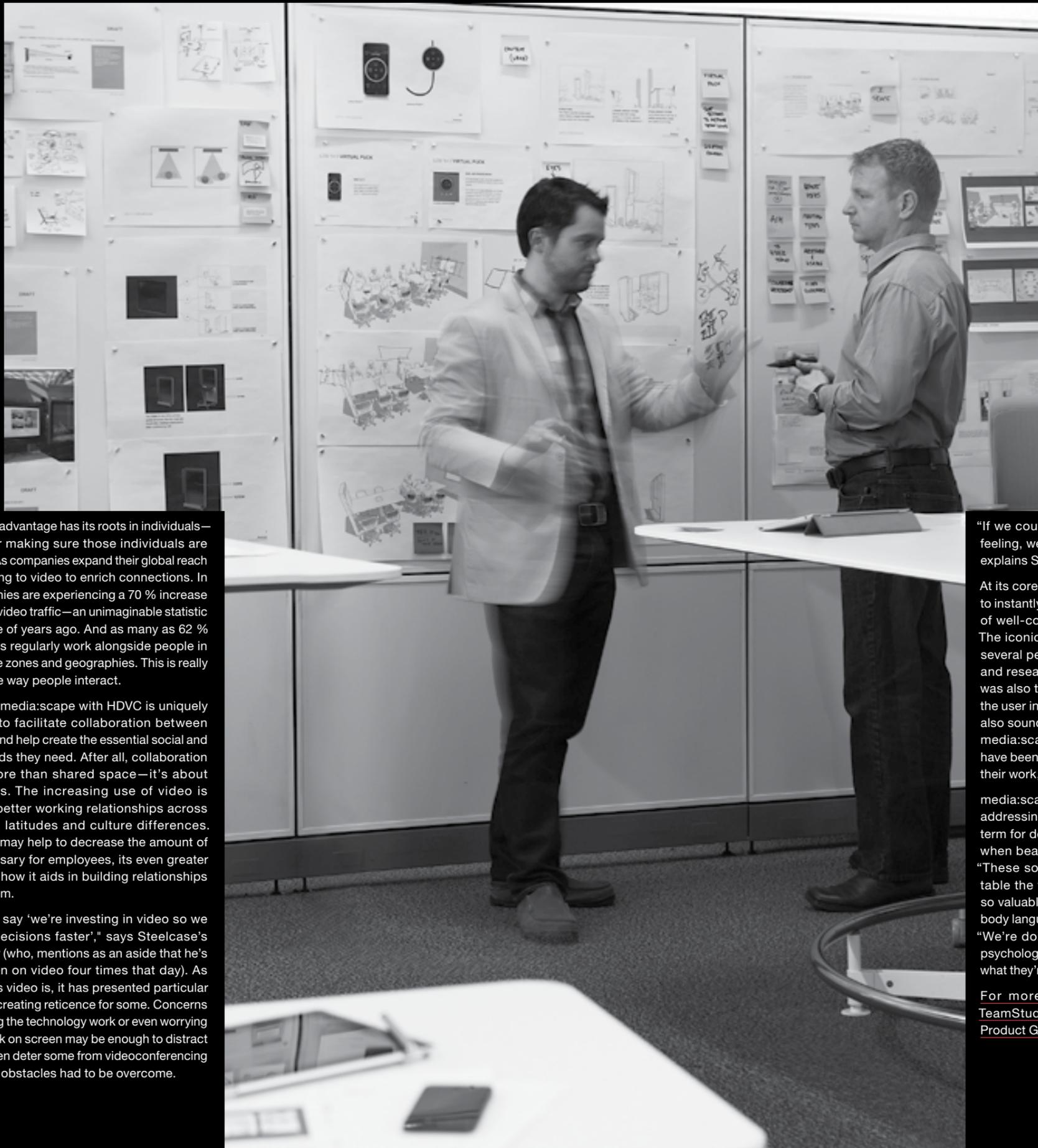
We've entered an era of global enterprise. In a way, that's nothing new—we've moved a dazzling array of things—from spices to textiles to oil—from one country to the next for centuries. That period of moving commodities expanded when the digitization of information facilitated international economic integration. Now we're entering a new phase of global enterprise that has ventured beyond the moving of stuff and of capital. Today, it's the social enterprise that's becoming global.

"People in China collaborate with colleagues in the United States, in France. To be effective, companies now need to build not just their business but cross-cultural bonds," explains Lathrop. "As a result, new issues emerge: how to deal with time zones, culture, language, innuendo and intent? Work is largely social, and new organizational patterns are starting to form. It's not about moving money or data, it's about forming new social structures and relationships so a company can behave as one integrated enterprise."

The media:scape family of solutions exemplifies Steelcase's response to the need to be a globally integrated enterprise. "We believe that video conferencing will become one of the dominant forms of communication within the workplace," says Lathrop. "It's already happening."

Competitive advantage has its roots in individuals—in particular making sure those individuals are connected. As companies expand their global reach they're turning to video to enrich connections. In fact, companies are experiencing a 70 % increase each year in video traffic—an unimaginable statistic just a couple of years ago. And as many as 62 % of employees regularly work alongside people in different time zones and geographies. This is really changing the way people interact.

Steelcase's media:scape with HDVC is uniquely positioned to facilitate collaboration between employees and help create the essential social and cultural bonds they need. After all, collaboration is about more than shared space—it's about connections. The increasing use of video is facilitating better working relationships across time zones, latitudes and culture differences. While video may help to decrease the amount of travel necessary for employees, its even greater benefit is in how it aids in building relationships between them.

"Companies say 'we're investing in video so we can make decisions faster'," says Steelcase's Scott Sadler (who, mentions as an aside that he's already been on video four times that day). As appealing as video is, it has presented particular challenges, creating reticence for some. Concerns about making the technology work or even worrying how they look on screen may be enough to distract people or even deter some from videoconferencing at all. These obstacles had to be overcome.

"If we could make the experience more natural feeling, we could make poeple more productive," explains Sadler.

At its core, media:scape allows distributed teams to instantly share and co-create content. A variety of well-considered features make this happen: The iconic PUCK™—an integral feature—allows several people to easily share their ideas, video and research as they work. This physical PUCK was also transformed into a virtual app that puts the user in control of not only content sharing, but also sound and lighting. The new additions to the media:scape family, TeamStudio and the Kiosk, have been designed to help people be focused on their work, not the tools.

media:scape has also been wildly successful in addressing "presence disparity." That's a terrific term for describing how most of us currently feel when beamed in for a group meeting from afar. "These solutions bring to the real (and virtual) table the things that make in-person meetings so valuable—an ability to read facial expressions, body language and other visual cues," says Sadler. "We're doing everything to make people more psychologically comfortable so they're engaged in what they're doing—not worrying about the details."

TAGWIZARD™

"Our beds are empty two-thirds of the time. Our living rooms are empty seven-eighths of the time. Our office buildings are empty one-half of the time. It's time we gave this some thought."
—R. Buckminster Fuller

Though Fuller's quote is decades old, his concerns couldn't be more of the moment. There's been an increasing awareness of how much more efficiently space can be used. Indeed, in business today, real estate optimization is key to performance: companies are shrinking square footage and densifying their spaces, allowing them to spend less money on real estate and optimize the space they already have, often using proprietary technology like Steelcase's RoomWizard, which allows them to track how much time collaboration spaces are being used.

Steelcase's user-centered design approach revealed that workers are more mobile than ever and many no longer need to own their own desk or private office. Researchers were also surprised to learn that some of those workers might spend up to 30 minutes a day searching for space to collaborate. RoomWizard solved that problem with an integrated system that works with a variety of calendar software in real time. When workers find an open space, they can reserve it and can get to work right away. The success of this room-scheduling technology was immediately apparent.

"THE SUCCESS OF THIS ROOM-SCHEDULING TECHNOLOGY WAS IMMEDIATELY APPARENT."

Now, the simple-to-use touchscreen interface that helped revolutionize meeting space management is available for individual workspaces with the introduction of TagWizard. Inspired by the success of RoomWizard and by the reality that more workers are mobile and fewer are tied to a desk—in fact, almost 35% of the global workforce is mobile. TagWizard is a first-of-its kind device that allows anyone to log into a corporate reservation application and reserve a spot. Mobile workers can "tag" a space on demand.

Behind the scenes, TagWizard collects information about facilities, providing facility managers with complete information on real estate utilization and wellbeing factors such as temperature and lighting levels. Not only is the space smarter, healthier and more efficient so are the employees working in it. ⊙

For more information about TagWizard, see the Product Guide, pg. 134.

RE
THINK

Behind every successful innovation is another innovation just waiting to happen, whether it's an improvement to what already exists or the invention of something entirely new. Either way, innovation is all about solving problems and offering new choices—second nature to designers.

"Designers never really stop designing," says Bruce Smith, Steelcase director of global design. "We are guilty of constantly thinking how an experience can be better, because we know that even great ones can be improved. We're always assessing the 'rightness' of what we see, always looking for opportunities to improve it. And that's the value that design brings to life."

This ingrained habit of design thinking led the Steelcase team to start asking, "Could Think be even better?" soon after this distinctive Steelcase seating product, designed in collaboration with Oliver Loew, was launched in 2004.

Think was quickly lauded as an exciting, breakthrough innovation. It became Steelcase's most globally successful product and, as the first Cradle-to-Cradle certified product on the planet, it created a higher sustainability standard across industries. But, as designers who don't stop designing, the Steelcase Design Studio team continued to think about ways to improve upon its success, engaging the engineering and marketing teams early on in a collaborative approach that's typical for the Steelcase product development process.

"Time passes, and our sense of what is relevant, meaningful and appropriate shifts," Smith explains. "A lot has changed since 2004. Workers are more mobile, Think is now being used in a range of settings,

and customer expectations for office furniture continue to rise. Meanwhile, we've learned about new materials, new molding technologies, new performance capabilities. We've gained eight more years of experience, and we've become more innovative as a company. All of this creates tremendous opportunities."

Because design thinking begins and ends with understanding users, feedback from the hundreds of thousands of Think users throughout the world provided valuable insights. They delivered stories back to the design team about what they loved as well as what they thought could be tweaked, thereby defining and framing the improvement opportunities ahead.

Then, about two years ago the team began in earnest to generate ideas, analyze possibilities and move into rapid prototyping to test concepts of a new design for Think, working again in collaboration with Loew.

Steelcase recently unveiled the result of this extensive redesign effort: a new, improved Think. In many ways, it still has the familiar Think look, but the only parts exempt from the redesign were the casters. The 2004 Think has been completely repackaged as a higher-performing, sleeker and smarter chair.

Probably the most visibly noticeable change is the back. Instead of 20 independent flexors, the new Think has 15 uniquely shaped flexors that are linked together, part of its new Integrated Liveback® System designed to conform to users like never before. The entire back is just three parts—a frame, linked flexors and a dual-energy lumbar—that work together in a very intelligent system of ergonomic support.

"We've coordinated the relationships to bring support where needed and freedom when needed," says Smith. "It's a unique solution that expresses its capability with character."

Another noteworthy performance improvement is an advanced weight-activated mechanism that means better support for reclining, and the seat cushion has been redesigned with adaptive bolstering for better comfort.

Many other improvements are smaller, but no less significant. For example, stainless steel accents add sophistication, and adjustments are more integrated and easier than ever to use. The back and seat edges are more comfortable, the backrest is slightly taller and more tapered, and the arm design is more robust.

The new Think has even fewer parts for faster disassembly and easier recycling. Even more important for sustainability, its improved durability, versatility and timeless appeal point to a longer life in a variety of office settings, from individual workstations to group settings such as conferencing areas and training rooms.

"I think of the 2004 Think as a teenager, full of great capability and promise in its own right," Smith says. "Now the teenager is a grownup, more refined and elegant. We've taken all that innovation, all that intelligence, and made it something even better."

Seeing its relaunch as a rite of passage, the Steelcase team seems almost ready to stop redesigning Think—at least for now. ○

The Nomadic Fringe

Mobile computing technologies have enabled knowledge workers to work anywhere at anytime. And millions of us are doing it. But it isn't always easy. Nomadic workers often put up with discomfort and inconvenience. That's why Coalesse, a Steelcase company, decided to study mobile workers and better understand the issues they experience every day.

Shujan Bertrand, a researcher and designer at Coalesse, knew she was onto something when dozens of micro-blogging entries began flooding in from bedrooms, kitchens, cars, offices, hotels, airport lounges, co-working cafés, coffee shops, subway trains, sidewalks and waiting rooms. The participants in her study wanted to tell her what it's really like to be a nomadic worker.

"Social breakfast in the cafe. Some like it public, others private. Headphones included. Food + people + content = the right creative equation."

"Very typical 'office' day. Sitting at 'my' spot at our non-assigned bench in San Francisco. Prepping for my Asia trip—heading to Tokyo on Friday. Network is spotty… May head to Starbucks if this doesn't improve!"

"Needed to step away to get some work done… need for a change of scenery… gloomy day and our space isn't the most inspiring."

As part of an innovative, on-the-ground research campaign, Bertrand asked Silicon Valley's creative knowledge workers to track their workdays using the Tumblr micro-blogging app. The blog entries were private, candid and loaded with insights. For a week, the participants issued a stream of consciousness. Some were calling on clients. Some were on business trips. Others were at home trying to juggle kids and work. Everyone was looking closely at how they deal with the day-to-day balancing act of distributed work.

The Question is: WHY?

"We all know that technology is rapidly changing the way many people live and work," says Bertrand. "Coalesse wants to support these mobile workers with inspiring product experiences. We believe the only way to accomplish this is to capture insights about their needs."

Inspiration. Every day.

In 2010, to find out how work nomads were handling work at home and peek behind the curtain, Coalesse did something unusual: it followed people into their homes. Emily Ulrich, Coalesse's senior researcher at that time, conducted observational research in the homes, offices, and other places the New York City and San Francisco Bay area study participants worked.

What Ulrich confirmed and reported in a Coalesse report titled "Untethered" [see 360 Magazine, Issue 62] was that mobile technologies have indeed untethered work from desks and offices. Time-pressed knowledge workers are working anywhere they choose. And because availability and responsiveness are so important in business, a back-and-forth toggling between life and work happens constantly for many people.

Home Alone

Naturally, toggling comes with stresses. The people Ulrich studied are experiencing this radical change in a lonely way, unsupported ergonomically or emotionally, working long hours on mobile devices at dining tables, on couches, and, in more than a few cases, in bed late at night. According to International Data Corporation (IDC) there are now 1.2 billion mobile workers worldwide. In the United States, says IDC, almost 120 million workers are mobile, representing 75.5% of the total workforce. (Japan is next with almost 50 million mobile workers; 74.5% of its workforce).

Since 2010, things have only become more intense for mobile workers as technology has continued to advance and designing spaces that support mobile workers has become more complex. Most people are connected throughout the day to multiple clouds through smartphones, tablets, and laptops. And because networking and social media options have expanded so dramatically, so too has the time commitment to manage them.

"We are looking for behavior patterns that suggest new platform typologies for product development—to turn real needs into needed solutions."

Mobile Isn't Mainstream

Yet two stark contradictions remain. Mobile work outside the office is still not a mainstream consideration. And research is scarce on connecting the habits and needs of mobile workers with the technology trends that are driving changes in the workplace.

According to Primo Orpilla, a principal of Studio O+A, a San Francisco-based alternative officing' firm that has designed spaces for Facebook and Evernote among many others, "There's a real need to grasp the needs of the 'other workplace'—the transitory spaces, the hallways, the break areas, the landscape outside the building, the coffee shop down the street. People can work anywhere these days so there are many opportunities to capture that work or to create that interesting space. But not enough people are thinking about it."

Coalesse has been giving it a lot of thought. Bob Arko, the company's creative director, says there is a vacuum to fill. "Architects and designers are not typically commissioned to do this kind of research and they rely on the major manufacturers for a more comprehensive perspective on workplace trends. At Coalesse, we are extending our own research focus beyond the traditional work environment and attempting to understand work behaviors in the context of people's broader lives, including most recently the increasingly nomadic nature of work."

Crossing Over

For Coalesse exploring nomadic work habits is like crossing a boundary. In fact, the term "crossover" has become a foundational concept. It suggests products and solutions that are location-agnostic, serving the multiple needs of nomadic workers wherever they choose to be.

Exploring those needs, says Bertrand, is how you seed great design. "We are looking for behavior patterns that suggest new platform typologies for product development—to turn real needs into needed solutions."

Bertrand began her research with interviews, talking extensively about nomadic work with Google, Oracle, Facebook, Square, Accenture, IDEO, Studio O+A, Worktech, International Contemporary Furniture Fair (ICFF) and the Institute of Design at Stanford, as well as co-working pioneers The Hub, The Grind, WeWork and NextSpace.

Pinning Down the Nomads

The hard part of nomadic research is, of course, pinning down the nomads. Observing people in offices is fairly straightforward. Watching moving targets is not.

Therein lies the necessity for a micro-blogging methodology. The Tumblr smartphone app is an easy way to blog in short bursts from your phone and upload pictures or video clips in seconds. Having creative people watch themselves, photograph their surroundings, and comment candidly on their situations offers fascinating gems of insight.

Among Bertrand's bloggers were: a senior manager in workplace transformation with Accenture, a product design consultant, a graphic designer, an associate partner at IDEO, a global client liaison at Steelcase, a product marketer, an independent furniture designer, a senior design director at a communications agency, a sales consultant and an illustrator. They were a mix of global travellers, local commuters, and home-based workers. Bertrand describes them as "creative knowledge workers." More senior. More distributed. More on-demand.

The goal was to track their work habits as they moved throughout their days. Bertrand wanted to find out, "Where and how work was being done in first, second, and third places? Tracking pain and pleasure points throughout days, nights, weekends, and during travel. How do individuals transition between personal, collaborative and social work? What do they need and desire to work anywhere, anytime? What behaviors create new questions and insights?"

"Working on the dinner table can be quite challenging and needs constant shifting."

"Yesterday I worked in four different spaces."

"Second bed in hotel serves as work surface, work in process suitcase, and dresser top"

"Not having a particular working space is more time consuming…"

Noticing the Commonplace

Many of the bloggers found the methodical process of pausing, observing and describing their surroundings or habits put them in tune with compromises and discomforts they normally overlooked.

"Following the chronology of it," says one nomadic sales professional who participated in the study, "you really start to be aware of the technology limitations. One obvious opportunity is to create 'the right product to support the hardware interface.'"

Abby Levine, a senior manager in the Accenture Real Estate Solutions Practice, travels relentlessly (more than 200,000 miles a year). "The world doesn't generally accommodate mobile working, even at places that say they do, like Starbucks. Give me a place where I can get online, where I don't have to scramble around trying to figure out where I can plug in," she says.

Another participant, a home-based designer and artist who regularly visits clients' offices, noticed that the vibe of different office environments affects how she feels about working there. "I began noticing how important it is for me to feel inspired. It affects the quality of my workday. At home I can create that inspiration, and you find it in the more creative office environments, but other spaces can feel almost depressing, physically and socially."

After the digital dust settled, Bertrand distilled her interviews and blogging streams into a map of patterns. She produced a comprehensive report titled, "Nomadic Work Landscape Design Research" that spans 111 pages in a detailed slide deck.

Did anything surprise her?

"It was validating and extended Emily's 'live/work' research of two years ago. By combining what we know about today's nomadic work behaviors and emerging technology trends we will begin to identify how we can create new work experiences. We see the opportunity to innovate in the gaps between how difficult conditions are for nomadic workers and how much easier it could be."

"The imperative," says Bertrand, "is to create new experiences and bring inspiration into people's lives. It starts by making their lives easier. The slightest gesture in hosting goes a long way for a nomad."

Three formal product-development approaches have emerged from the Coalesse research: Inspiring Destinations, Optimizing Mobility and Cultivating the Senses.

Inspiring Destinations; Improving Touch-Down

The bottom-line question when it comes to accommodating nomads, says Bertrand, is, "How do we host what you might call 'high-quality, touch-down experiences'? How do you create that sense of, 'Wow. This is a place I'm going to come back to.'"

Coalesse has uncovered a number of important considerations. They include the creation of dynamic, configurable spaces, "self-assembly" options and choices that provide a variety of work experiences like open and social spaces for extroverted people and collaborative work, or closed and private spaces for more introverted people and private work. In fact, because of the intensity of digital work and the desire for greater personal interaction and more effective virtual interaction between work teams these days, organizations are creating a "vibe" and fostering inspiring cultures that turn into great work experiences. For example, for heads-down private work, it might be an alcove or or a lounge chair with a canopy. For collaboration, perhaps a setting of cushioned chairs and low tables with nearby power receptacles.

This year, Coalesse introduced a new product line—Lagunitas—that exemplifies the high-quality, touch-down experience. A configurable sectional series from Milan-based designer Toan Nguyen, it can be customized for collaborative work, socializing or personal work. Lagunitas evokes a "third-place" vibe in the style of a coffee shop booth or café seating with built-in power.

Lagunitas is a space defining lounge and table collection that can create a 'third place' anywhere.

Optimizing Mobility: Hosting Tools Too

"Optimizing mobility," says Bertrand, "is the platform where we really start to see interaction between product and human behaviors… 'Temporality' is important. People want to feel like they temporarily own a space." It might be as simple as a dock or stand to put your digital tool near a conveniently placed power outlet (access to power and data seem to be the top concerns of nomadic workers). It might be a product that has "curated touch-down qualities".

"For example," says Bertrand, "there are not many office chairs or side tables or lounge settings that say, 'This is where your tools can temporarily be supported with digital docking postures. This is where your bag can be safe.'"

Her strategies for optimizing mobility include offering ways to quickly personalize a space; temporary storage; shared collaboration tools like whiteboards and Post-It-friendly walls; and accommodating postures, both of mobile workers (relaxed or perched over a keyboard) and of their tools (varying heights and angles). Overall, the strategy is to offer options by having the right selection of products available for productive mobility, wherever people choose to work.

Anticipation, Bertrand believes, should be the frame of mind for designing inviting spaces for nomads. Start by admitting that mobile workers are showing up and deserve accommodation. Then imagine their transitions and requirements. Make it easier and less time-consuming for them to touch down, work and leave. Augment the flow.

An example from Coalesse, introduced last year, is Free Stand, a portable and foldable laptop or tablet stand that offers a quick, easy place to work. What makes Free Stand distinct from similar products is its ability to collapse in seconds, so work at home can disappear when it's time to relax.

Free Stand is a portable and foldable worksurface for mobile devices.

Cultivating the Senses: Physical & Emotional Comfort

Bertrand says workspaces and work experiences for nomads are better when they please the senses. A recurrent observation that runs through her research is discomfort brought on by relentless compromises in physical posture due to screens and information overload.

Her suggestions include: a "pallete of digital postures," the right lighting and acoustic qualities for video communication, utilization of outdoor spaces, and generally what Bertrand refers to as a "sensorial orchestration of products that inspire and motivate creativity and innovation."

Comfortable productivity is expressed in the recently introduced Massaud Work Lounge for Coalesse by designer Jean-Marie Massaud. A wide, embracing swivel lounge inspired by a first-class airline seat, it is paired with an ottoman that opens for storage. The distinctive work-related features of the Work Lounge are a pivoting tablet arm that integrates with the chair and a privacy canopy.

Massaud Work Lounge with height adjustable pivoting tablet and storage ottoman.
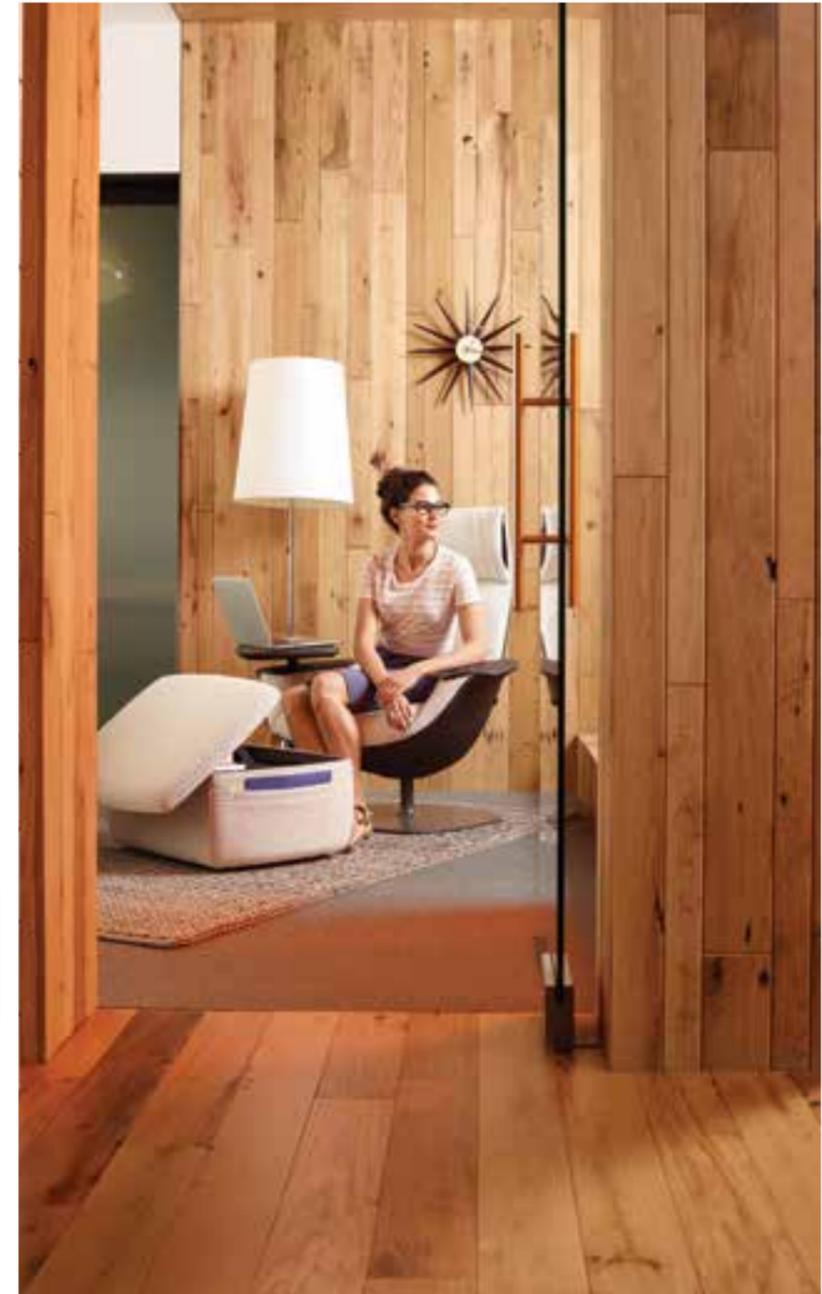
Creating at the Intersection

Arko calls Bertrand's research report a "lens" to fresh insights and opportunities. His team has begun an exercise they are informally calling "Digital Postures," examining the most evident intersections of Bertrand's three themes—where multiple nomadic needs cross over—in the hope of devising life-easing solutions.

But where does this research and these insights about mobility fit in the larger world of workplace furniture and space design?

Arko says it's a slow dawning. "A fairly conventional vision of the office workplace still dominates for many organizations," he says. "Our job is to look at the changing behaviors and inspire new approaches that can serve these evolving needs."

Adapting to the Future

Orpilla points to the hospitality industry where mobile workers are a major customer segment. He says there are now hotel lobbies with free Wi-Fi and comfortable workstations close to food and drink. "Hotels are beginning to understand that part of their business needs to be addressed."

"Our corporate projects tend to resemble hospitality with the lobby vibe or the restaurant vibe or the coffee vibe. These days, some people work in those spaces more than they work at their desk," says Orpilla. Historically, Orpilla has seldom worked outside of Silicon Valley. "Now, we're getting inquiries from the Midwest," says Orpilla. "People see these really cool incubators that produce these rock star tech types who after a couple of years strike it rich. We've created some of those incubators for the best and the brightest. There's starting to be interest across the country in how to duplicate that."

Bertrand has no doubt about the opportunities that lay ahead. "If you look in Silicon Valley, you see how people are creating and playing with new technology, how it supports them at work and at home, how it enables people to be free to work where and when they want. It's hard not to see that as the future." **o**
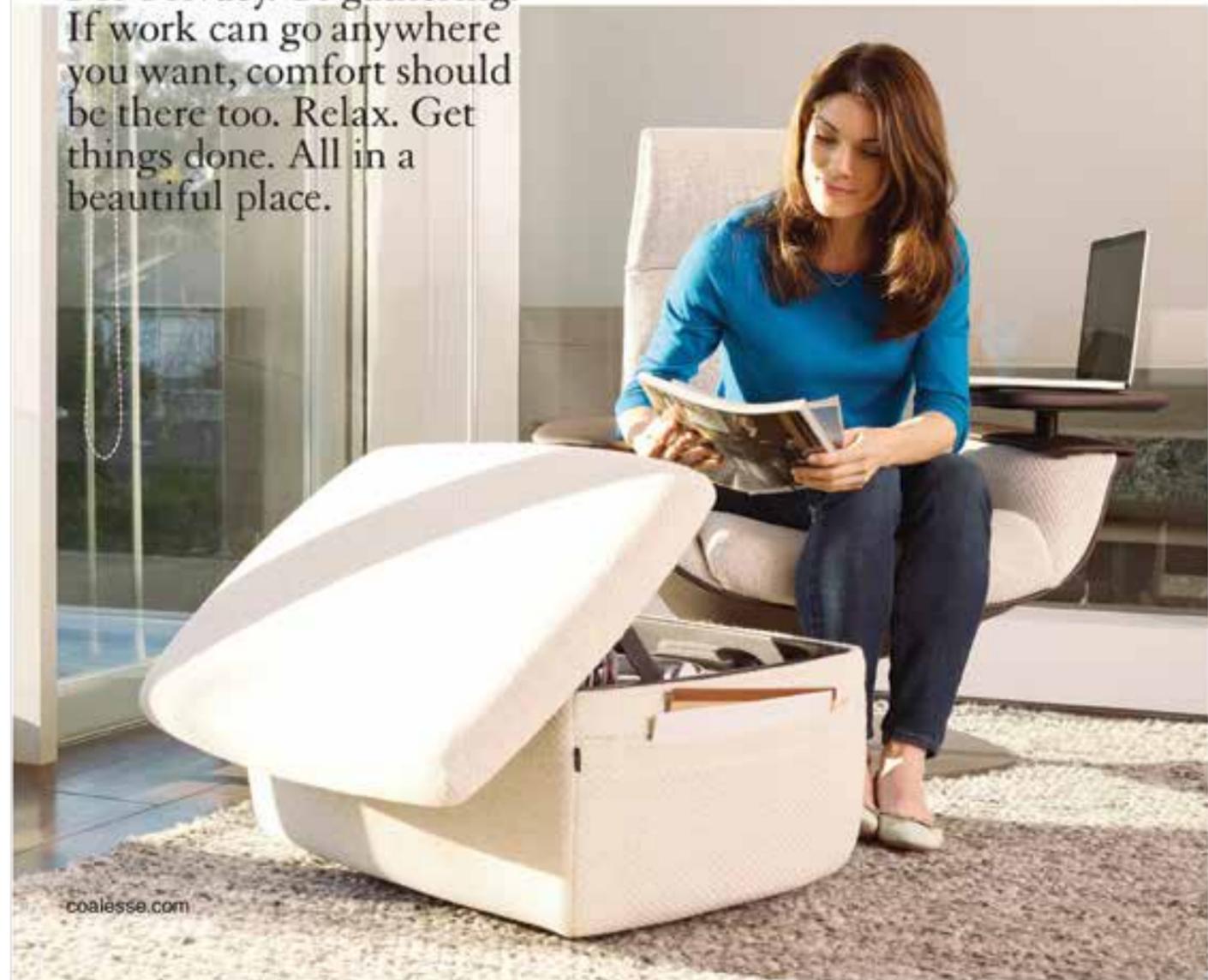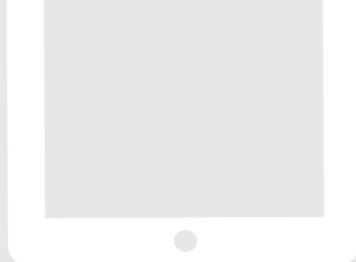
HOW TECHNOLOGY IS CHANGING EDUCATION

When a Stanford University professor offered a free online course in artificial intelligence in 2011, he had no idea that the experiment would attract 160,000 students from 190 countries and generate a wave of publicity.

That's one of many examples of how technology is reshaping education around the world. From the rapid proliferation of massive open online courses, or MOOCs, to the widespread use of mobile devices that support a variety of "blended learning" models (part online, part bricks-and-mortar based), technology is creating new challenges and many new opportunities for educational institutions of all types, from early education to universities.

"Technology is changing the dynamics of education, especially the relationship between teachers and students. As educators begin to rethink the learning experience, we believe it will be important to also reshape educational spaces to support this evolution," says Andrew Kim, a Steelcase WorkSpace Futures researcher and a member of the Steelcase Education Solutions team that has been investigating the spatial implications of learning and technology. So far, the study has involved observing and interviewing students and teachers at 20 schools.

Among the fastest-growing and irreversible trends at all levels of education: increasing use of laptops, tablets and other mobile devices. Many primary schools now provide every student with a laptop or tablet. At colleges and universities, many undergrads now own tablets as well as laptops. Always interested in the advantages of portability, a growing number are also now asking for content delivered to their smart phones.

As recently as a few years ago, mobile devices were used almost exclusively as only a souped-up substitute for conventional tools like handouts, transparencies for overhead projectors, books, paper and pens. Today, however, these technologies are beginning to transform how instruction and learning actually take place.

Teachers are using technology to replace old models of standardized, rote learning and creating more personalized, self-directed experiences for their students. There's more multi-device synchronization with software that supports multiuser collaboration and more support for virtual conversations, both within and beyond a classroom. And more students and teachers are creating their own digital content, including animations and videos.

Percentage of Students

Longitudinal Trends in Undergraduate Technology Ownership 2004 - 2012

Source:
Educause Center for Applied Research

Chart labels:
- Laptop +83%
- Smartphone +554.5%
- Desktop -48%
- Cell Phone
- Tablet
- E-Reader
- PDA

Y-axis: 0%, 20, 40, 60, 80
X-axis: 2004, 2006, 2008, 2010, 2012

"What's interesting is that as learning is becoming more virtual, the virtual activities are actually becoming more physical. One might say virtual and physical are meeting in the middle."

**Andrew Kim,
Steelcase WorkSpace Futures**
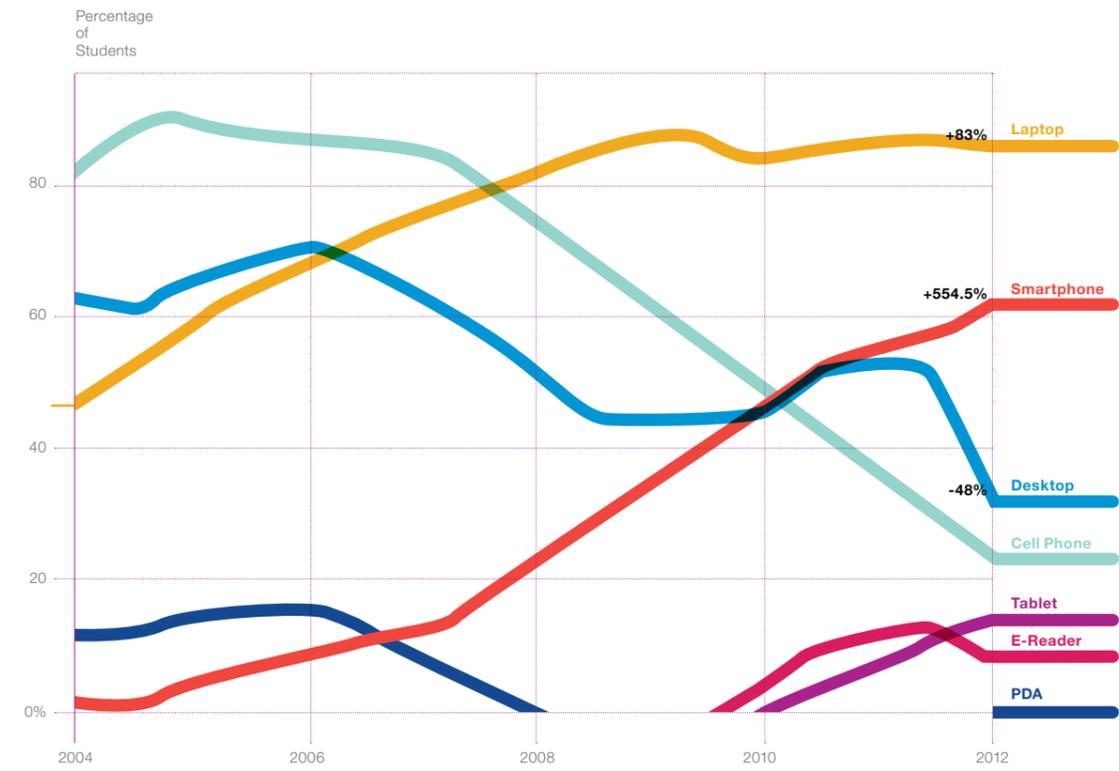
Much of the information that only teachers possessed in the past is now available to students online, challenging the old model of teachers presenting content and students absorbing it. As a result, educators are now leveraging technology to create a different role for themselves in their classrooms. Instead of using class time to spoon-feed information, technology is helping them use their time with students to advance problem-solving, communication and collaboration—exactly the type of higher-order skills that leading education specialists say should be the goals of education for today's world.

"More and more, classrooms are becoming places where knowledge is created versus consumed by students," says Kim. "As students start to have more control over what they use to help them learn, you need to have spaces that support more creative or generative activities. This means more mobility inside and outside of classrooms, as well as new kinds of learning spaces that support varying individual activities and rates of learning. Providing a palette of place, posture and presence—i.e., virtual as well as face-to-face interactions—is as important in educational spaces as it is in workplaces, for many of the same reasons. In fact, schools are beginning to leapfrog corporations in the use of mobile devices and many are facing the related challenges head on."

As the tsunami of technology trends washes over education, some things have managed to stay the same. For example, students and teachers haven't abandoned analog materials—and aren't expected to anytime soon. They continue to use whiteboards, paper and notebooks to capture and visualize thought processes, and will continue to need spaces designed to support the parallel use of analog and digital tools.

BLENDING WORLDS

Within all levels of education, learning is now occurring both remotely and onsite through blended learning programs that combine online and face-to-face interaction. Just one of many examples is the flipped classroom model in which students access content online outside the classroom as their homework and then apply this new knowledge in the classroom by engaging in active learning practices, such as discussion or group work.

Blended learning can cut costs, which makes it popular in today's challenging economy. There are also early signals from several studies that suggest giving students more control over how they access information can be more effective than all face-to-face or all virtual learning.

"What's interesting is that as learning is becoming more virtual, the virtual activities are actually becoming more physical. You might say the virtual and the physical are meeting in the middle," says Kim. "In many instances, you have different subjects happening all in one room, and multiple teachers acting as tutors and motivators to give directed support. It's shoulder-to-shoulder, even closer than face-to-face."

"The best places for education will bring people, technology and space together in innovative ways."

ONLINE LEARNING IS HERE TO STAY

Technology inclusion in lesson delivery is becoming the norm

160k
students enrolled in a massively open online course (MOOC) offered by Stanford in 2011. Source: Inside Higher Ed, 2012

20k
education and learning applications have been built for the iPad and 1.5 million iPads are currently in use in educational institutions and schools.

79%
secondary school teachers in France believe that in the past two years they have been using more technology in the classroom than ever before.

65%
of students in the U.S. have taken online classes.

Because blended learning changes the role of the educator to become more of a facilitator and coach, there's a growing use of para-educators who work alongside teachers to manage online learning and help with classroom activities. There are also spatial implications. Classrooms designed for a teacher at the front of the room may now need to concurrently support self-directed work at computers as well as collaborative projects. In the United States, for example, even some kindergarten classes now have a separate zone for individual online work within the classroom. Other schools are dramatically reducing the amount of space allotted for classrooms, instead creating large open areas for self-directed learning.

Colleges and universities, while embracing various forms of online learning, are also looking for ways to build student-teacher engagement and monitor performance. With MOOCs, in particular, approaches are still experimental. Despite online discussion forums, many students still seek face time with their professors and each other. The MOOC platforms are meeting this need by making it easier for students to meet through online social networking portals, grouped by geographical proximity.

Teachers have always been very aware that schools engender social learning as well as cognitive learning, and so the search for adding physicality to cyber schooling continues. For example, one MOOC professor announces "office hours" at a coffee shop in his destination city whenever he travels for students who want to meet in person. Some community colleges are now creating blended courses using MOOC content, with the MOOC providing the online experience and the community college picking up the offline experience of professors interacting in person with students.

Even as learning becomes more virtual, the importance of teachers and bricks-and-mortar places are expected to remain valuable components in the educational equation, says Kim. "As we continue our research, it's clear that the best places for education will bring people, technology and space together in innovative ways. If you think of classrooms as places where knowledge gets created instead of consumed, they have similarities to innovation studios where flexibility is built in and it's easy to switch between individual work and collaboration. More than ever, we're seeing the need for classrooms to become highly flexible spaces that support the new behaviors of learning that are the direct result of new technologies."

As rapid development occurs in previously underdeveloped nations and new technologies impact the way that knowledge is transferred and embodied, education is becoming even more valuable and valued throughout the world, and the quest continues to refine both its processes and the places where it occurs. ○

A New Learning Curve

Ideas on planning and designing learning spaces from Lennie Scott-Webber, Ph.D., Director of Education Environments for Steelcase Education Solutions

Learning By Doing

It's really not a new idea. As long ago as 1916, leading educational reformer John Dewey referred to interaction as the defining component of education that occurs when students transform information into knowledge with personal application and value.

Fast-forward to today's world: Award-winning and widely-quoted educator and author A. W. (Tony) Bates says that interactivity should be the primary criteria for selecting media for educational delivery. Professor Terry Anderson, the keynote speaker at the 2012 Next Generation Learning Conference, contends that deep and meaningful learning can be developed if at least one form of interaction is at very high levels: student–teacher, student-student, student-content. Steelcase believes you need to add student-environment to this model.

Clearly the critical role of interaction in supporting and even defining education has long been recognized. At Steelcase Education Solutions we use the term "active learning", and we're continuing the journey of discovery by studying this engagement factor from a variety of perspectives.

Interaction/engagement/active learning is becoming embedded into pedagogy as a critical teaching and learning strategy. Active educators are working hard to generate active learning all over the world.

But there is a problem. Often, the classroom environment is a barrier. When pedagogy moves from a passive-learning format, "sit and get," to an active one, the design of the space in a row-by-column seating arrangement, packed as tightly as possible, doesn't support the need or the intent. It takes more square feet or meters per-person to move. To move from a transmission of knowledge model to include immersive interactivity and engagement, space matters more than ever before.

Beyond the need to interact with their teachers and each other, today's learners need to interact with tools, especially those that Professor Anderson describes as "net centric." The research we're doing at Steelcase is delving deeply into the spatial implications of active learning and these new tools. And a paradigm shift is emerging. We believe it is the first wave of educational change.

Within Steelcase Education Solutions, we view learning as an ecosystem where space, technology and pedagogy converge. In the convergence is active learning. Technology and space are tools that should be specifically developed to support the pedagogy and user behaviors of active learning.

Each institution is different. The march for change is different. With that said, it is appropriate—indeed, we believe vital—for each institution to put a stake in the ground and say, "Here is where we are on this journey of change, and in five years here is where we want to be in terms of active learning." Armed with a vision for the near future, constituents from information technology, facilities and academic professional development can come together, develop a road map, and chart incremental change with tangible tasks and assigned ownership for completion. The slow-moving tortoise will not win this race.

We truly learn by doing. Engagement is about learning, not just a transfer of knowledge. Going forward, it's important to look at the picture holistically, design for behaviors and be ready for change. ○
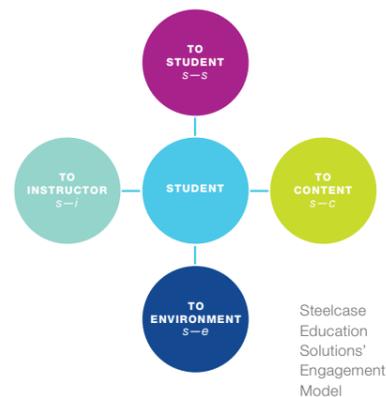
About the author

Whether as a designer, instructor or administrator, I've spent years researching educational environments and have seen the insides of more classrooms than I can count. My passion, and my job, is helping people understand the behaviors that come from different environments, and creating classrooms that truly support new ways of teaching and learning. Email your ideas and questions to lscottwe@steelcase.com or on twitter to Lennie_SW@twitter.com.

Steelcase Education Solutions' Engagement Model

TO STUDENT
S—S

TO INSTRUCTOR
S—i

STUDENT

TO CONTENT
S—C

TO ENVIRONMENT
S—e

Learning spaces reimagined.

At Steelcase Education Solutions, we set out to do far more than simply update the classroom. Our goal was to rethink. Reinvent. Re-envision learning spaces. So we spent some time in them—hundreds of them. Listening. Observing. Talking to the people who know them best. We immersed ourselves in the way information is presented, absorbed and processed. How seats are arranged and technology is implemented. How communication and collaboration work. All so we can make learning more engaging, more empowering, more inspiring. For today, and years of tomorrows.

www.steelcase.com/educationsolutions

Insight-inspired learning spaces.

GROUP

LECTURE & TEST

DISCUSSION

Steelcase
Education Solutions

10x10

A campaign that's dedicated to changing the world by educating girls.

Haiti

More than 66 million. That's the estimated number of girls in today's world who don't go to school. And yet, there's overwhelming evidence that educating a girl can break cycles of poverty in just one generation and create a wide ripple of positive change, says a group of award-winning journalists at the Documentary Group and Vulcan Productions. Last year, in partnership with Intel, they launched 10x10, a global campaign to educate and empower girls.

Removing barriers to girls' education—such as early and forced marriage, domestic slavery, sex trafficking, gender violence and discrimination, lack of access to healthcare, school fees—means not only a better life for girls, but a safer, healthier, more prosperous and more sustainable world for all, says Holly Gordon, the executive director and executive producer of 10x10. Gordon's earlier career included 12 years at ABC News as a producer and booker for the major news broadcasts "World News Tonight with Peter Jennings," "Good Morning America," "20/20" and "Primetime" as well as a stint with New York's Tribeca Film Festival.

"It's not about educating girls because they're better than boys," she explains, "it's just about what happens when you educate a girl. And it just so happens that girls are behind in almost every developing country in the world today."

More than anything, facts drove her involvement in 10x10, Gordon says. "Once I heard the data and decided to dig into the research behind the premise that educating girls can change the world, it seemed like a 'duh' moment: Why aren't we doing this on a scale because the outcome is so significant?

"When you educate a girl, she becomes a mother who's more likely to immunize her children, to avoid contracting HIV/AIDS, to marry later, to have fewer children, to have children later so she doesn't fall into the challenges of young delivery…. When a girl stays in school for four more years, her income grows by 20%. And she's more likely than a man to reinvest her income in her family…so down the line you see growth in GDP. Educating girls is good for economic prosperity. And then on the civil society and stability side of it, research has found in countries where women have an equal voice in public society, the societies are more stable…So that's a ramification for world peace."

Rather than relying on conventional methods to tell the story, the 10x10 team devised an innovative strategy centered on social media, the Web and, as its centerpiece, a feature film. To meet the challenges of finding a critical-mass audience, they decided to self-distribute the film through a unique method of on-demand crowdsourcing, putting the power to screen their movie in the hands of anyone who wanted to bring it to their community. As Gordon describes it, "it's a really interesting experiment around journalism for social change."

"As a journalist, the old recipe for success was to get your story on the front page of The New York Times and everything will change after that," she says. "That's no longer true. The New York Times is a great place to be, but you're not going to change the world with just one story on the front page of one newspaper. You need ubiquity, and in the old days you wanted exclusivity. So how could we use the process of making this film to create a ubiquitous conversation about the value of girls?"

More than 66 million. That is the estimated number of girls who do not go to school.

Showing at a theater near you?

The film "Girl Rising" premiered in March 2013. Directed by Academy Award nominee Richard E. Robbins, it tells the stories of nine unforgettable girls born into unforgiving circumstances. Like Sokha, an orphan who rises from a life in the garbage dump in Phnom Penh, Cambodia to become a star student and an accomplished dancer. Like Suma, who writes songs that helped her endure forced servitude in Nepal and today crusades to free others. Like Ruksana, an Indian "pavement-dweller" whose father sacrifices his own basic needs for his daughter's dreams.

Each girl is paired with a renowned writer from her native country, and celebrated actresses such as Anne Hathaway and Meryl Streep narrate their stories.

Using a website, Gathr.us, anyone can take action to bring "Girl Rising" to a screening venue nearby. Simply register, request a theater location, date and time, and then use the toolkit 10x10 has created to invite people you know. Once enough people have reserved tickets, the screening is confirmed.

Knowing that just changing minds with "Girl Rising" wasn't enough, 10x10 created the Fund for Girls' Education. Donations are directed to nonprofit partners: A New Day Cambodia, CARE, Partners in Health, Plan International USA, Room to Read, United Nations Foundation/Girl Up, and World Vision, all leading organizations with proven track records of providing life-saving services to girls.

To date, there has been a groundswell of interest and support for "Girl Rising" with about 1,800 requests for screenings and 70,000 tickets sold. Regal Cinemas signed up for an exclusive, weeklong run in its 169 theaters nationwide this past April. It will play to its largest potential audience ever when CNN Films broadcasts it on June 16. Looking ahead, 10x10 is now planning for distribution beyond the United States.

"I gave at the office."

Businesses have been an important audience for 10x10, through financial support and opening up workplace channels for promoting the film. Advertisements for "Girl Rising" and the opportunity to donate to the fund are shown on employees' computers at approximately 60 leading corporations.

"I think businesses have a huge role to play in social change and in positive outcomes in the world…" says Gordon. "Especially in the developing world, businesses have a really important place in terms of leverage and clout because they create revenue and employment, and those things pay for infrastructure…. Businesses fuel society and because of that they have influence and connectivity that sometimes a nonprofit organization alone doesn't have. And, in the case of a company like Steelcase, they have international reach. So it's yet another way to reach across borders and to share understanding."

Going for the widest possible distribution is all in support of the cause that Gordon says is "the highest returning investment you can make in the developing world today." Educating girls creates a more sustainable world in terms of health, economic and social stability, she emphasizes. What's more, educated women are also good for the environment. For example, they're more likely to use clean-burning fuels and produce less waste.

"The first action that anyone can take after they read this article is to see the film, to meet the girls to get a better understanding of the impact that girls' education has on society," she urges. "And then to choose what to do with that information." ⬡

Learn more about 10x10 and "Girl Rising," including how to schedule a screening, at 10x10act.org/

In countries where women have an equal voice in public society, the societies are more stable.

Sustainability Spotlight

Promises Made, Promises Kept, New Promises:

Corporate Sustainability Report Tracks Progress, Shares Vision

In an increasingly interconnected world, there's growing awareness that protecting natural resources and enhancing people's lives is core to the future of the human race as well as a company's ability to survive and thrive in a changing, challenging world.

"Steelcase was founded on the belief that business is a human enterprise—and, as a part of that, a company devoted to sustainable business practices," says Jim Hackett, CEO. "There are many opportunities that offer a time for a company to reflect, recharge and refocus. We took the opportunity of our 100th anniversary to do just that—to reflect on our sustainability accomplishments and dream big about the future."

Earlier this year, Steelcase released its most comprehensive corporate sustainability report ever. Steelcase is one of only 40% of the companies globally that voluntarily reports its environmental and social impacts every year. Titled, "+Promise," Steelcase's report documents the company's global environmental and social practices throughout the world in the context of promises made to customers, partners, communities, employees and the environment. It also documents the new promises the company is making and how it will fulfill these through enhanced governance practices.

This year's online report includes a Global Reporting Initiative (GRI) Index, which reports on more than 120 key performance indicators in 10 categories that range from product responsibility to labor practices and human rights.

Browsing the report, readers can learn about Steelcase's sustainability efforts through stories about Steelcase people worldwide who are transforming the future. Just one example from Europe: Rather than waiting for a new international standard to be released, Steelcase partnered with the leading environmental life cycle assessment company Quantis and other corporate leaders to build a global water footprinting methodology, using the company's products as a case study. Why participate? Because water conservation is more important than ever, and the tools for managing and measuring water need to significantly improve. By evaluating the future integration of water criteria into life cycle assessments, Steelcase can create new guidelines for upcoming product development projects.

Looking forward, the company plans to reduce its global environmental footprint by another 25% by 2020.

"We also plan to expand our sustainability practice and reporting capabilities to capture metrics for additional areas and refine existing metrics for global accuracy," says Angela Nahikian, director of Global Environmental Sustainability. "We are taking an intentional step forward, working to elevate sustainability as a lens for innovation on a global scale."

Beyond Steelcase's operational performance reflected in the stories in the report, the company acknowledges that helping customers achieve their sustainability goals is one of the greatest opportunities for delivering large-scale value and impact.

By sharing research-based insights and offering innovative products and solutions, Steelcase can help organizations get the most out of their real estate while also supporting their employee's performance and wellbeing. The results are worth the effort: an efficient real estate footprint means less unnecessary construction, less energy used and fewer greenhouse gas emissions. Most important, it empowers workers to do their best work.

"We believe we can harness the power of our actions and assets to make enduring positive change. Our commitment to sustainable practices ensures we contribute to the social, economic and environmental conditions that allow people to reach their full potential," says Hackett. "Our sustainability initiatives not only benefit the communities where we live and work, they also advance the fitness of our company. They are a motivating force in driving innovation and transformation." ○

Explore the report at csr.steelcase.com/

Environmental Impact Reductions
Between Calendar Year 2006 and 2011

37%
reduction greenhouse Gas emissions

54%
reduction water consumption

23%
reduction waste + materials recycled

53%
reduction voc emissions

Other Noteworthy Metrics

100%
of electricity purchased from renewable energy credits in offices in Paris and Strasbourg, France
25% of electricity use in the U.S.

$4.7 Million
donated
By Steelcase and The Steelcase Foundation to support communities

5,361 Hours
employee volunteer service
donated globally

Steelcase joins Microsoft, Coca-Cola, Chevron, General Mills and others in 2013 Business Roundtable Sustainability Report

This spring Steelcase was included in Business Roundtable's 2013 sustainability report, "Create, Grow, Sustain: How Companies Are Doing Well by Doing Good." Released in April, the report features narratives from 147 CEOs at world-leading companies who discuss how their companies are improving the quality of life for millions of people around the world through their sustainability efforts. In addition to Steelcase, invited participants include Microsoft, Coca-Cola, Chevron, General Mills, Johnson Controls, SAP, Xerox and other well-known and respected organizations across a diversity of industries.

"Providing workplace environments to the world's leading organizations, Steelcase is uniquely positioned for large-scale impact," Steelcase CEO Jim Hackett states in the report. "We are proud of what we've accomplished within our company, but our greatest potential for impact is helping customers achieve their sustainable business objectives. The work we do with our customers and insights gained from research drive innovation and improve performance."

NeoCon, 2013.

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introducing buoy. a seat that's as active as you are.

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coalesse®

Free Stand-
by Stephan Copeland

Work Anywhere.
Free Stand is ideal for solo work on a couch, in a lounge chair or for collaborating in a class or conference room. Foldable and portable, it goes wherever work takes you.

coalesse.com

Leadership Moment

360 spoke with Artexis Chairman and Founder Eric Everard who shared with us how his Belgium-based multinational company uses its corporate headquarters to successfully manage business internationally.

ERIC EVERARD
Chairman and founder, Artexis Group

artexis

Event organizer and exhibition hall manager Artexis Group, the parent company of Artexis Belgium, Artexis Nordic and easyFairs, operates in 15 countries from its base in Belgium. Everard was recently named Manager of the Year for 2012 by business magazine Trends-Tendances.

artexisgroup.com

It would be hard to find a company more at ease working across borders than Artexis Group. The company manages events, exhibit halls and trade shows across diverse industries and locations: food in Columbia, maintenance in Germany, lab equipment in Switzerland, autos in Poland, industrial tech in Singapore, etc. More than 2.5 million people visited an Artexis event last year.

GLOBAL STRATEGY, LOCAL IMPLEMENTATION

Artexis constantly bridges global and local perspectives. "Commercial activities (selling booths, attracting visitors, etc.) are accomplished at the local level, while marketing, research and development strategy are worked out at the international level. Group managers are natives of the different regions where we work. By sharing local experiences through our central offices and disseminating our ideas, values and methodology, we assure the consistency of the organization. This makes internal communication essential, so we've developed a range of ways to facilitate cross-border collaboration, from a sophisticated intranet platform to regular formal and informal meetings in our offices, which are designed to foster open and frequent communication."

The culture of Artexis Group, says Everard, "is built on our values—efficiency, creativity, commitment, results-driven, team spirit, environmental awareness, integrity and having fun—and our culture becomes a coherent factor. The challenge is more often in implementing business processes. We try to be as coherent as possible by sharing common practices but it's wrong to force them on to a local operation when they conflict with local practices, whether they're social, cultural or intellectual. Selling practices, for example, are different in Latin, German or Scandinavian countries, so the solution is to be uncompromising when it comes to values and open minded about implementation.

OPEN ATTITUDES AND OFFICES

"Our business and our creativity rely on continually questioning and confronting our point of view, and our office environment reflects that approach. Our new Brussels office is located close to the airport and with direct access to major roads. It's an environment that welcomes colleagues coming in daily from other locations. Areas for networking and chatting, such as hallways, canteens and kitchens, are broad, central and pleasant. We have a lot of meeting spaces, with open areas and hotelling workspaces for those who travel between the group headquarters and our three offices in Ghent, Antwerp and Namur. Flexibility is important, so our office furniture can be easily rearranged to create different workspaces when we need them."

Having employees of different generations on staff presents no challenges, says Everard. "I don't believe they work intrinsically in different ways. This may be because of our emphasis on internal communication. Our people are all individuals and they work together smoothly because they consider each other's differences, and they communicate constantly. The open nature of our work environment helps, too. My own office is fundamentally the same as my colleagues'. I have a glass door and it's open most of time.

NOTHING CAN REPLACE 'BEING THERE'

"Most employers probably underestimate the value of an office as an attractor. We're a 'people company' and our double-digit growth rate depends on attracting, developing and retaining talented and motivated people. The exhibition and trade show industry is often associated with cold exhibition halls, logistics, etc. People don't expect an office like ours with a high level of design, comfort and innovation, so our new work environment has become a resource for attracting talent to our company.

"Our offices are like our events and exhibitions business. Much of the communication is accomplished virtually, but it's not quite the same as being there. That's why people attend trade shows and events, and why our offices are open, transparent and built for constant interaction and communication." ⊙

dash® mini is the most advanced LED task lamp. dash provides a uniform pool of light which reduces contrast, minimizing glare and shadows.

At details we design for the physical, cognitive and social wellbeing of the person.

this is **details@work**

Atoms + Bits

Global Posture Study goes viral

Everyone is talking about the findings of the recent Steelcase Global Posture Study, which discovered nine new postures that are a result of new technologies and new workplace behaviors.

Media around the world, including The Wall Street Journal, The Economist, Bloomberg Business Week, The Atlantic, Gizmodo , Mashable, El Pais, Huffington Post France, Spiegel, Die Karriere Bibel, Forbes China, GQ China and Online Nigeria, have run stories on how these new postures are not properly supported by current office chairs and when not adequately addressed, these postures can cause pain, discomfort and long-term injuries for workers.

The new Steelcase Gesture chair and, inspired by studying the movement of the human body and created to address these postures and the ways people work today.
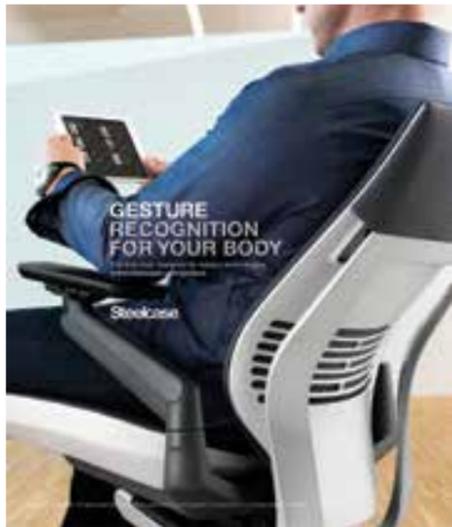
From France to Morocco: a humanitarian race

Steelcase employees Sylvain Girardeau (Ukraine, Belarus and Baltic countries) and Doncho Penchev (Kazakhstan) recently participated in the 4L Trophy, a humanitarian rally with Renault 4 cars. Their objective: drive across the Moroccan desert to provide children withw school supplies.

Thousands of participants deliver close to 80 tons of school furniture in Morocco after driving 6,000 km from departure sites in Bordeaux and Paris. The two-man team crossed France, Spain and Morocco in a 27-year-old 4L Renault car, driving more than 6,500 km in 10 days!

Culture Code hits the stands in HBR

The Steelcase Culture Code research has found its way into the May issue of Harvard Business Review. The article, "Vision Statement: How Culture Shapes the Office" explores why organizations should consider the larger cultural contexts in their work environments to help them work better globally.

"More businesses than ever are global and that means people have the opportunity to work with others from all over the world," says Catherine Gall, research director, Steelcase WorkSpace Futures. "We've been hosting events in cities like New York, Shanghai, London, Paris, Köln and Madrid, to help our customers and designers better understand how to leverage what we've learned about culture and the workplace to provide effective work environments in a global business world."

To learn more about Culture Code or how you can attend a seminar, contact your local Steelcase sales office.

DESIGN4NEXT

Calling all design students

Design4Next, a new Steelcase competition, challenges students to rethink the office for the new economy, today and tomorrow and design the "NEXT" office. All entries must be received by November 25th and semifinalists will be announced December 16th. Five semi-finalists will be invited to Steelcase University in early 2014 where the winner will be announced. The Grand Prize Winner will receive $1,000. The winning school will also receive a $1,000 contribution to their design program or charity of choice. The Fall 2013 competition is open to junior and senior students at North American CIDA accredited schools. For more information on contest details or registration: design4next@steelcase.com.

One of 2013's "Most Admired Companies"

Fortune Magazine has recognized Steelcase Inc. as one of its 2013 "Most Admired Companies" in the Home Equipment, Furnishings industry sector. This year, Steelcase is ranked in the fourth position, and is joined by notable brands such as Whirlpool and Tupperware brands, among others.

In the Fortune survey of executives that ultimately determine the "Most Admired Companies" rankings, Steelcase's highest scores came in the social responsibility, people management, global competitiveness and quality of management categories. Social responsibility has been a key focus for Steelcase. The company recently released its 2012 Corporate Social Responsibility Report, titled "+Promise," which details its efforts to incorporate responsible business practices from 2006 through 2011.

GESTURE™
SEATING

Technology is the single greatest force driving the changes in the way we work, live and behave. The new, multiple devices we deploy throughout our work day allow us to flow between tasks fluidly and frequently.

Gesture is the first chair designed to support our interactions with today's technologies. Inspired by the movement of the human body. Created for the way we work today.

· ·

AVAILABLE

NORTH AMERICA FALL 2013
EUROPE, MIDDLE EAST & AFRICA EARLY 2014
ASIA PACIFIC EARLY 2014

THE CORE INTERFACE

Our body is a system in which our "seats" backs and legs are synchronized in movement. Like the human body, Gesture's back and seat are connected and move as a synchronized system that creates a tailored fit, moving with each user to provide continuous and persistent core support.

THE LIMB INTERFACE

Gesture's arm moves like the human arm, which helps people to get closer to their work and supports their arms and shoulders, no matter the device they are using, and no matter the size of the individual. Gesture's arms are mounted behind the hip to support a wider range of postures and people, and also so that the chair takes up a smaller footprint overall than traditional chairs.

THE SEAT INTERFACE

Gesture's seat uses Adaptive Bolstering (air channels in the foam) that responds differently to large and small users to provide consistent comfort for everyone.

The contoured seat distributes weight to make it comfortable longer. It is flexible at the perimeter to allow a range of postures without pinching or cutting off circulation. The seat depth control is responsive, and makes it easy to "fine tune" so people are less likely to perch on the edge of their chairs.

We didn't start with a chair design. We started by looking at the movements of the body. Like the human body, Gesture is designed as a system of interfaces.

WANT TO LEARN MORE ABOUT GESTURE?
Visit steelcase.com/gesture

THINK®
SEATING

When Think was launched in 2004, it was embraced around the world as a breakthrough innovation. Now this multi-function chair has been completely redesigned from the casters up with new materials, new technologies and new performance capabilities, including a new intelligent Integrated Liveback System that conforms to users like never before. With even fewer parts for even simpler disassembly and recycling, it still has the familiar Think look completely repackaged as a higher-performing, sleeker and smarter chair.

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ASIA PACIFIC EARLY 2014

WANT TO LEARN MORE ABOUT THINK?
Visit steelcase.com/think.

V.I.A.
ARCHITECTURAL WALLS

V.I.A. not only defines space, but redefines the role vertical real estate plays in an interconnected workplace. V.I.A augments human interaction by providing true acoustical privacy and hosting technology. It provides a sense of permanence with the speed and design flexibility of a relocatable wall, allowing the creation of a range of applications.

A collaboration between Claudio Bellini and the Steelcase Design Studio, the visuals and design of V.I.A. offer an elegant and timeless design.

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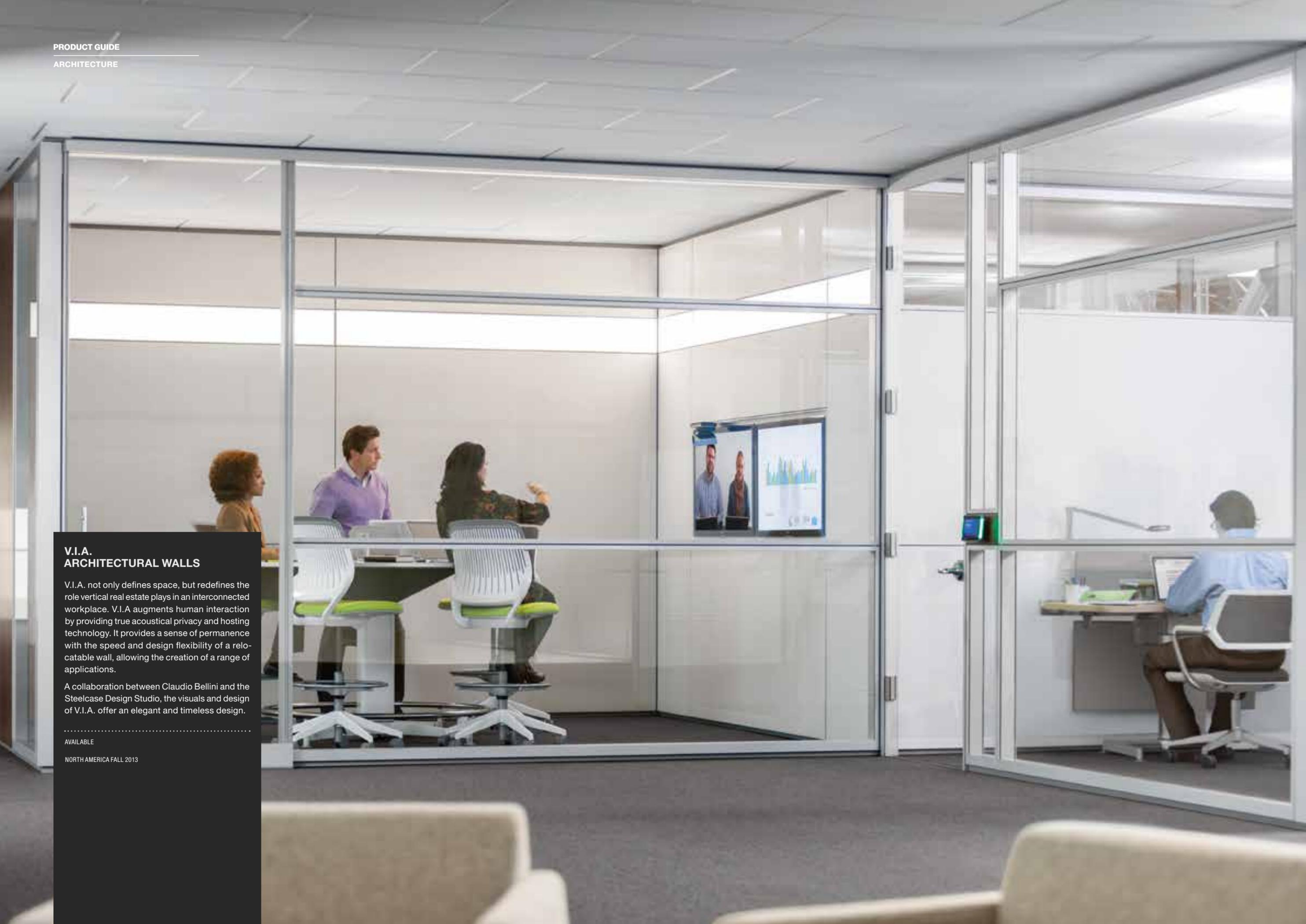
ACOUSTIC PERFORMANCE

V.I.A. creates a new benchmark around true acoustical privacy. Focused workspaces can be adjacent to dynamic collaborative team spaces without noise disturbance issues. V.I.A. is engineered with a unique acoustical intelligence; all frames, skins and every junction is manufactured with full acoustical seals.

PLATFORM FOR THE FUTURE

V.I.A. not only allows you to realize your design vision today, but its embedded intelligence provides a platform for the future. With V.I.A. it's easy to make small changes or large changes, providing a sense of permanence with flexibility for evolving business needs and emerging technologies.

DESIGN FREEDOM

V.I.A. provides consistent and predictable visual detailing giving architects the freedom to express their vision using a broad range of materials and wall typologies to create different spaces without having to compromise on vision or worry about the details. This includes both dimensional consistency whether in the horizontal or vertical orientation, planarity amongst surfaces, and mitered edge detailing.

V.I.A. is developed with EnvisionIT, the design flexibility from Steelcase that enables parametric products to easily be planned and ordered by selecting desired attributes, simplifying the entire process from specification through installation. EnvisionIt removes the many boundaries to creativity typically imposed by "fixed" sizes and provides you with the ability to express your own vision.

PRECISION ENGINEERED

Precision engineering drives the consistent visual detailing of V.I.A. The intelligent precision frame and mechanical skin attachment brackets are designed to properly align skins—this happens to minimize installation time and reduces dependency on the installer's skill level.

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WANT TO LEARN MORE ABOUT V.I.A.?
VISIT STEELCASE.COM/VIA

MEDIA:SCAPE®
TEAMSTUDIO™

media:scape® TeamStudio™ amplifies the conditions for innovation by augmenting the quality and quantity of interactions in the places where teams come together to work. Local and distributed teams can engage using analog and digital tools in a seamless, easy and equal way. The result is a destination that fosters trust, facilitates collaboration and speeds innovation.

TeamStudio is a comprehensive application for active project teams, that considers social dynamics for both the near side and the far side video participants, working equally as well when the camera is on or off. It's perfect for hosting a large team brainstorming session, and can just as easily support small breakout sessions

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WANT TO LEARN MORE ABOUT MEDIA:SCAPE TEAMSTUDIO?
Visit steelcase.com/teamstudio.
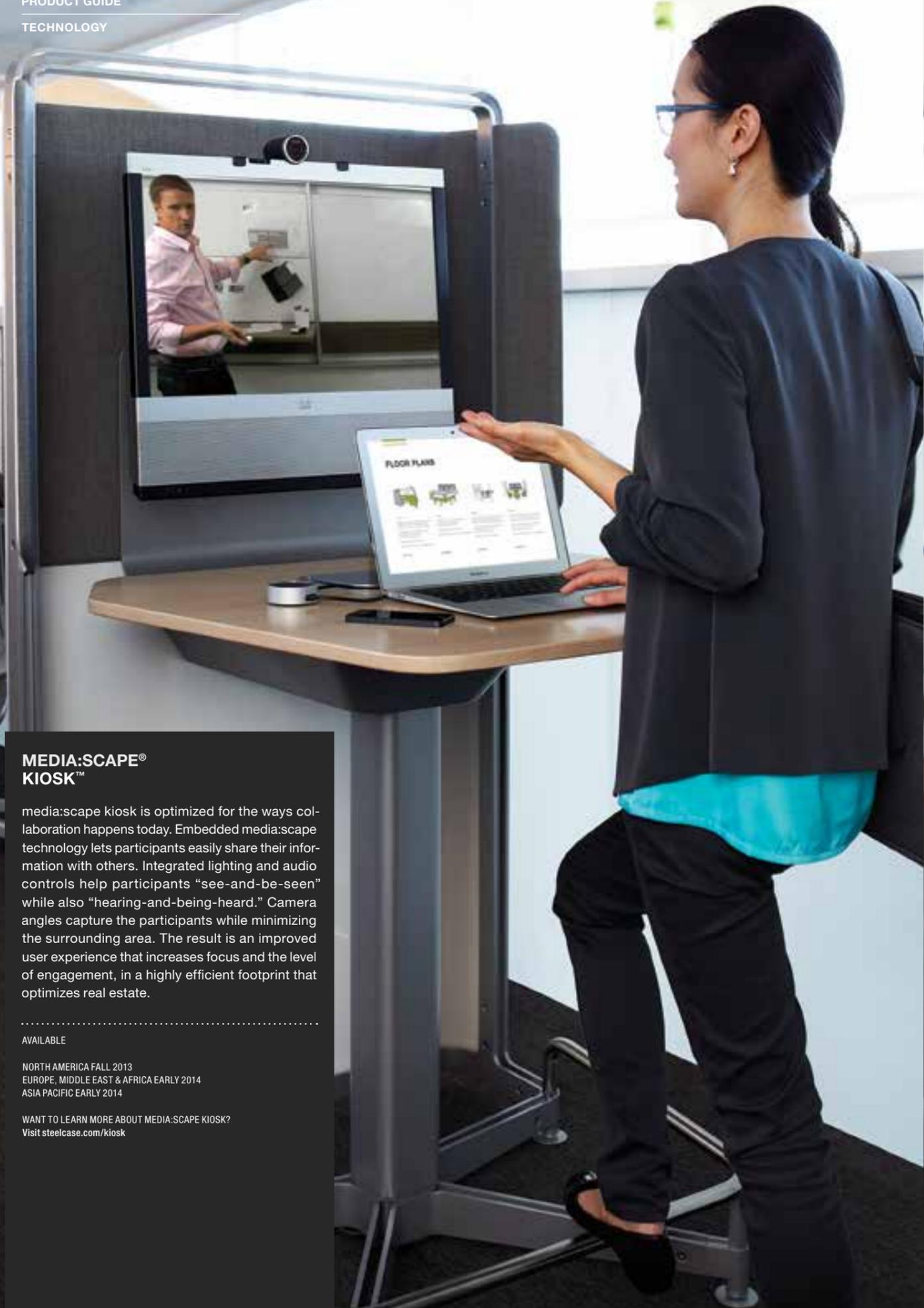
MEDIA:SCAPE®
KIOSK™

media:scape kiosk is optimized for the ways collaboration happens today. Embedded media:scape technology lets participants easily share their information with others. Integrated lighting and audio controls help participants "see-and-be-seen" while also "hearing-and-being-heard." Camera angles capture the participants while minimizing the surrounding area. The result is an improved user experience that increases focus and the level of engagement, in a highly efficient footprint that optimizes real estate.

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WANT TO LEARN MORE ABOUT MEDIA:SCAPE KIOSK?
Visit steelcase.com/kiosk

MEDIA:SCAPE®
VIRTUAL PUCK™

media:scape Virtual PUCK is the perfect wireless companion for any media:scape solution.

The new APP unlike traditional wireless sharing technology does not require complicated IP addresses or a dedicated platform.

Simply open the APP, connect to media:scape virtually, and wirelessly share your content via any media:scape display. Available for both Mac and PC laptops with additional devices coming soon.

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WANT TO LEARN MORE ABOUT VIRTUAL PUCK:
Visit steelcase.com/virtualpuck.

TAGWIZARD™
SPACE RESERVATION SYSTEM

TagWizard is a free-address scheduling system that makes space easy to find, reserve, and measure. Mobile workers can "tag" a space on demand, from their computer or mobile device.

Unlike other scheduling systems, TagWizard allows instant check-in with the swipe of a badge or the touch of a finger; it collects information about utilization and wellbeing factors using an optional analytics package; and it provides IT managers the tools they need to efficiently deploy, manage, support and update the system.

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WANT TO LEARN MORE ABOUT TAGWIZARD?
Visit steelcase.com/TagWizard.

TEXTILES

A deliberate range of textures, patterns, colors and price options make up the Global Palette of textiles. Each color and pattern were specifically chosen based on global acceptance and relevance to mul- tiple regions around the globe.

GLOBAL PALETTE
STEELCASE
SURFACES

Global Palette, from Steelcase, makes it simpler for design professionals to deliver aesthetic consistency around the world—even if their clients' furniture selection varies from region to region. Born from global surveys and color trend mapping, this selection of textiles, paints, laminates and melamines has been designed to complement one another—delivering choices without the complexity.

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NORTH AMERICA NOW
EUROPE, MIDDLE EAST & AFRICA NOW
ASIA PACIFIC NOW

WANT TO LEARN MORE ABOUT GLOBAL PALETTE?
Visit steelcase.com/globalpalette

PAINTS

Paint is the foundation of materials choice within the Global Palette. To ensure a balanced and complete offering, color family, value, range, neutrality and glob- al trends were considered. The result is an offering with a broad range of creative choice that is beauti- ful, efficient, intuitive and easy-to-order.

HOSU WINS AUSTRALIAN GOOD DESIGN AWARD 2013

The Hosu chair from Coalesse received a Good Design Award at the 2013 Australian International Design Awards in the Furniture and Lighting category. The Hosu chair was cited for its stylish design that supports the graceful integration of work and life, in an innovative interpretation of the classic lounge chair that pushes beyond the design boundaries of lifestyle and office furniture. The Awards were presented at a presentation ceremony on 30 May in Sydney, held in conjunction with the citywide Vivid Sydney event.

The Australian International Design Awards has a proud 50-year legacy of promoting new, innovative and well-designed products in Australia and throughout the world, and is currently run under the aegis of Good Design Australia.

MELBOURNE WORKTECH 13

Jason Heredia was a guest speaker at WORKTECH 13 event, which was held in Melbourne in late February. Steelcase was a gold sponsor for the event which was sold out. In his presentation on the Culture Code, Jason shared Steelcase insights into better understanding the cultural codes in the workplace, and how to reflect and incorporate important values, employee behaviors and larger cultural contexts into high performance work environments around the world.

SUSTAINABILITY UPDATE: CSR 2012 NOW ONLINE

Since its establishment 101 years ago, sustainability has been one of the core values of Steelcase Inc., integrated into every aspect of the company even as it grew to be the world leader in its field. This dedication to sustainability continues today, playing at ever-increasing role in our leadership and the unique vision we share with customers and stakeholders.

The release of the 2012 Corporate Sustainability Report, reports on major sustainability goals that were set leading up to the Company's 100-year celebrations. Major achievements include:

• 37% reduction in greenhouse gas emissions between calendar year (CY) 2006 and 2011

• 54% reduction in water consumption between CY 2006 and 2011

• 23% reduction in waste between CY 2006 and 2011

• 53% reduction in VOCs between CY 2006 and 2011

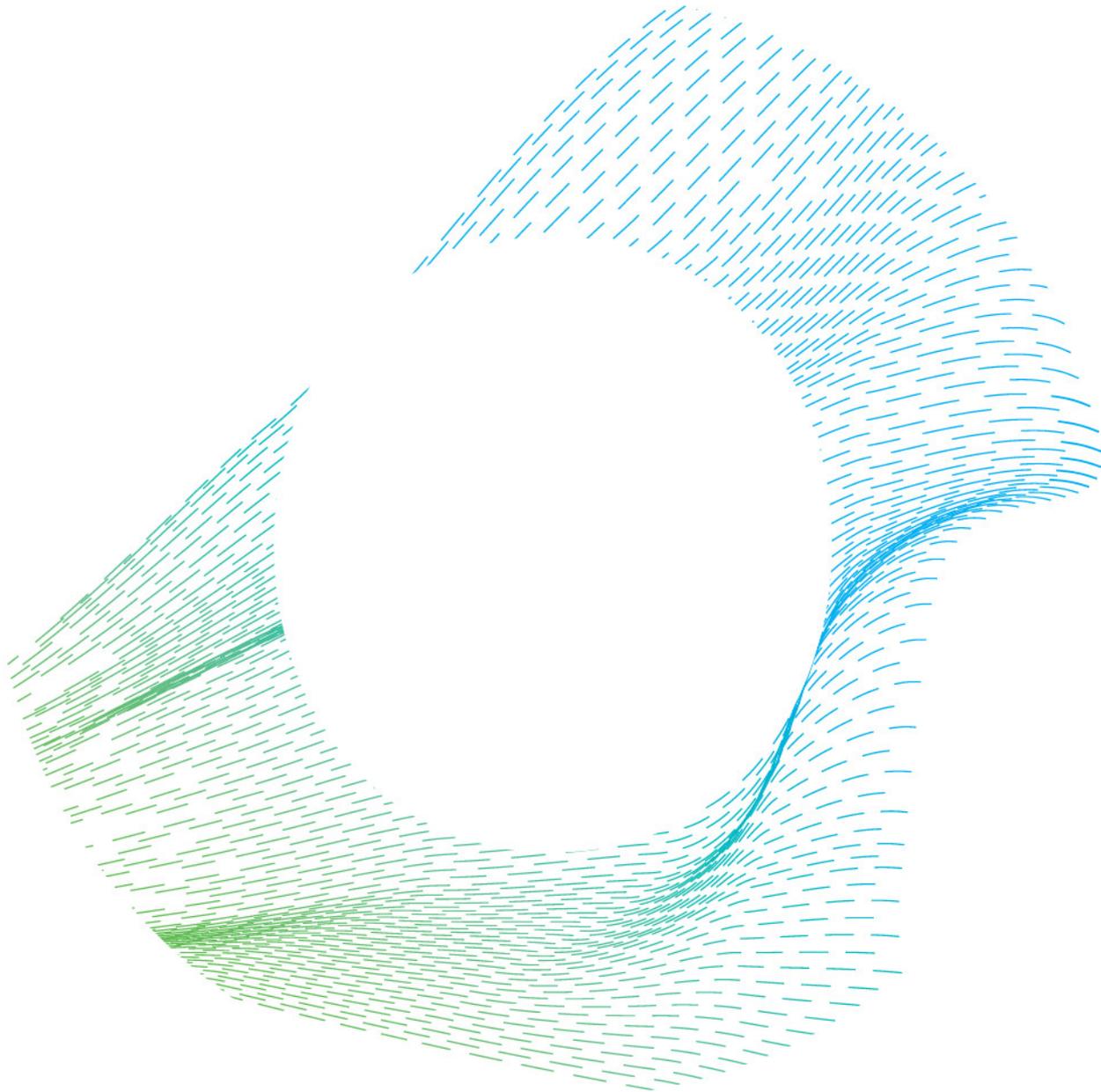• 25% (equivalent) of U.S. electricity usage from the Wege Wind Farm

You can read the full CSR 2012 report here: http://csr.steelcase.com

EXPRESS YOUR PERSONALITY

The Personality range of task seating features a wide range of options to enable individual users to express their personality, and companies to provide a range of customized seating to suit different tasks and personal preferences, while keeping a consistent design aesthetic throughout the workplace.

Starting with the base choice of task chair with a mesh or fabric back and high stool with mesh back, the wide range of options includes convenient storage belt (for fabric back version), armrests, eadrests and coathangers. Add in a great range of mesh and fabric colors to choose from, and you have a comprehensive seating range to seat everyone in stylish and supportive comfort.

Steelcase