

The Changing Workplace: How Technology, Demographics & Data Shape 21st Century Workplace Design



This paper reviews the leading forces behind the changes in workspace architecture, and discusses the ways in which they are transforming workplace design.

— Erik Willey, 04/01/17

Introduction

Workplace design – the structure, configuration, furnishings and other architectural features of our workspaces – has tended to evolve gradually. 2016 represented a tipping point of change that put an end to this slow-moving evolution, with design insiders predicting that an unprecedented rate of workplace transformation had begun.

The Change Agents

Decades of cubicle-dominated workplaces are coming to an end.¹ While many factors are contributing to this massive workplace makeover, chief among them are changing demographics, the increasing influence of technology, an ongoing talent shortage, and a greater understanding of the impact of workplace design on productivity and employee retention. Additionally, in the slowly receding wake of the great recession, financial considerations continue to influence workplace design considerations.

Demographic Shifts

The convergence of several demographic shifts is causing a rapid transformation in workforce characteristics:

- Baby boomers are retiring by the millions.
- Millennials made up the largest single workplace cohort as of early 2015, and in 2016 began filtering into management positions.²
- First "generation Z" college grads have begun entering the work world.³

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Millennials are the first generation to come of age surrounded by technology, while gen Z was raised with ever-greater access to tech. True digital natives, employees from these generations have distinctly different work styles and expectations than their predecessors. Highly motivated by peer relationships and steeped in the interactive culture of social media, they crave collaboration, work best in teams, require frequent feedback, and have a strong desire to work with the latest technologies.⁴ Millennials are projected to make up 40% of the workforce by 2020 and 75% by 2025, and the need to develop a collaborative workplace environment will continue to correspondingly increase.⁵

Technological Advances

The introduction of new technology has been a consistent driver of workplace dynamics. Never, however, has technology so quickly impacted the very structure of the workplace. Beginning with the laptop and continuing through the ubiquity of the smartphone and today's convertible hybrid tablets, mobility has dramatically transformed the way we work and, consequently, the way workplaces are

designed. The growth of wearables, media streaming, wireless charging, cloud-based personal communication services, content sharing capabilities, and other productivity apps continue to transform the capabilities of businesses of all types and sizes, often followed by a transformation in workspace to better capitalize on these capabilities.

Talent Shortage

The need to recruit and retain top talent is further shaping the way companies conceive of their workspaces. Projections indicate that demand for talent in North America will outstrip supply from now until 2021. In an era where a majority of professional workers value work-life balance and a sense of being appreciated as much as a high salary, organizations with appealing, inspiring workplaces will have an edge in attracting and keeping top talent.⁶

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Data and Research

We intuitively recognize that our environment impacts our comfort, mood, and focus – all of which has an impact on our personal productivity. Several studies, for example, have demonstrated that certain design elements can increase employee happiness, reduce sick days, increase focus and enhance employees' sense of feeling valued.⁷ Workplace design firms are rapidly harnessing this data, as exemplified by one firm's statement that its evidence-based design provides employees with improved satisfaction, heightened well-being, reduced stress, easier wayfinding and increased safety, delivering their employers improved occupancy and financial performance, increased employee job efficiency and retention, and reduced absenteeism.⁸

Financial Considerations

For most companies, the physical workspace ranks second or third among top expenses, and the desire for fiscally efficient use of space isn't new. The rate of change related to the factors noted above, however, is making it harder than ever to anticipate space needs, bringing workspace expense to the forefront of budget discussions. 72% of corporate real estate executives are tasked with realizing productivity improvements, placing decision makers in the position of greater emphasis on modifying their facilities to support creativity, focus, and teamwork.⁹

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The Impact on Workplace Design

The whirlwind of change discussed above is quickly impacting the very structure of our workplaces, including configuration, furnishings and finishing elements. Among the most notably new designs are those that are:

- Flexible, modular and future-ready
- Activity-based, blended spaces
- Developed to support well-being
- Equipped for integrated technology
- Uniquely appealing to employees
- Driven by data

Flexible, Future-focused Design

Traditional office spaces call for advance planning and investment in permanent layouts, a model no longer suited to today's changing workplace. Modular, adaptable workspaces offer a smart solution that addresses many current challenges. The flexibility to easily adapt workspaces to accommodate fluctuations in employee, project and company needs guards against the financial drain of unused or underused real estate – ideal for today's changing world, where many essential positions didn't exist five years ago, and it is increasingly difficult for companies to predict the job functions that will be needed in upcoming years.¹⁰

Flexible workspace and adaptable furniture further enable easy integration of new technologies, offering the assurance of a more future-proof workspace. Importantly, modularity also delivers a functional fit for the more social, collaborative workstyles of millennials and Gen Z workers. For example, furnishing products with adaptable elements that can easily move around and fit together in innumerable ways, without the need for rule-based planning, enable a more dynamic, interactive environment.

Blended, Activity-based Design

Up-and-coming generations thrive in social, collaborative environments, yet workplace privacy and the need to balance collaboration with concentration are leading companies to combine open floor plans with a variety of functional spaces. Recognizing that there are pros and cons to every office floorplan, blended offices offer a mix of private, semi-private and open workspaces, maximizing the benefits of each while offsetting the negatives through diversity.¹¹ Also called activity-based design and typically based on the modular principles discussed above, blended offices divide and define spaces for particular work-styles and tasks. Most modern workplaces incorporate one or more communal areas, as well as meeting rooms, unenclosed breakout areas, and casual seating groups. The most common types of zoned spaces include:

Multipurpose Workspaces – Encompassing conference rooms, project rooms, and huddle spaces, as well as unassigned workstation seating, oval office desks and community tables, companies are seeking to provide a range of easy alternatives for interaction with multipurpose spaces.¹² Sizes are trending small, with huddle rooms continuing to overtake the traditional conference room in popularity and data indicating that 75% of meeting rooms are now designed for four people or fewer. Recognizing the continued need for some larger spaces, the ability to join rooms or open spaces is another growing trend.¹³

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Lounges – In-sync with the well-being design trend discussed below, these comfortable spaces stimulate relaxed, impromptu collaboration.¹⁴ Also called the office commons or other terms befitting the company culture, these social hubs are the new norm in modern workplaces and a recognized zone for meetings-of-the mind between disparate departments and project groups.

Client Lounges – An offshoot of the communal hub, many companies are also establishing separate lounge-styled spaces to facilitate more casual client and visitor interactions.

Shrinking Personal Workspaces – Mobility, ever-smaller technology, and the prevalence of huddle spaces have precipitated the decrease in size of individual workspaces. At an average of 300 square feet per person in 2001, personal workspace size had fallen to 225 square feet by 2012 and is predicted to reach 100 square feet per person.¹⁵

Privacy Pods – Taking a range of forms and often strategically placed to block background noise and interruptions from passers-by, these individual spaces provide a peaceful oasis for focus within open offices.¹⁶

Quiet Zones – Defining quiet as an activity within a collaboration-minded workplace, companies are providing silent areas as part of an activity-based office design. Larger versions of the privacy pod, these zones indicate the desire to avoid spontaneous conversation and concentrate without interruptions.¹⁷

Collaboration Centers – With two-thirds of today's workers indicating that they are more efficient when working closely with others, the provision of collaboration enclaves with appropriate furnishings, acoustics and technology can maximize engagement and productivity.¹⁸

Neighborhoods – Hierarchy is no longer a defining factor in workplace design, with function usurping job title for space allotment. Forward-thinking companies are taking this concept further, grouping workers into broad zones and encouraging a shift from identifying the area as "my space" to embracing it as "our space," and engendering a sense of belonging in a unique workplace neighborhood. Designers suggest using distinctive furnishings, lighting, and colors to brand each neighborhood with its own visual identity.¹⁹

Color Coded Zones – Harnessing the power of color to boost happiness, productivity and creativity, companies are increasingly using color to define and organize functional spaces within offices.²⁰

Designing for Well-Being

The phrase "sitting is the new smoking" captures the essence of studies revealing the often profound health hazards of prolonged sitting. Propelled in part by these findings, as well as research demonstrating the productivity and health benefits of natural light and other environmental elements, design for well-being has become a top priority for a growing number of businesses. Leading design experts advise providing flexible workspaces with a variety of spaces and destinations for workers to inhabit that promote movement throughout the day.²¹ These features include sit-stand desks (shown to reduce musculoskeletal discomfort, such as back, neck and shoulder pain, as well as relieve stress and increase productivity) along with strategic placement and design of staircases, lounges and restrooms to encourage more movement.²²

A subset of the design focus on well-being, biophilic design incorporates natural materials, natural light, vegetation, natural views and other experiences of the natural world into the modern built environment.²³ More than an aesthetic trend, the use of biophilic design has been shown to improve productivity and creativity.²⁴

Employee Appeal

Recruiting and retaining top talent is a prime concern for most businesses and sought-after millennials in particular look for environments that support their social, technology-centric lifestyles. Often drawn to jobs with facilities that are inspiring, fun and comfortable, these workers tend to look for features and amenities such as community gathering spaces, appealing food offerings, workout

facilities, outdoor break areas, recreational opportunities, modern furnishings, and advanced technology platforms, which convey a sense of employer concern for the well-being of their employees.²⁸

Integrated Technology

Technology in the workplace is nothing new. The trend here is a sharp focus on designing office surroundings to more easily incorporate and adapt to today's digital-based business processes and technologies. A top concern is concealing the masses of wires that accompany tech (or eliminating them with wifi). In a 2016 Fast Company round up of top workplace design trends, hiding the wires topped the list, with one designer telling the tech mag that one of the most frequent concerns heard from clients is a desire to eliminate wires and clutter from desktops and conference rooms.²⁵ Companies are also seeking greater ease of use for personal devices and corporate tech to facilitate seamless content sharing and hassle-free collaboration. By integrating technology into furniture, workstations, lounges and other spaces, employees can get down to business quickly, efficiently and without breaking focus to fiddle with connectivity and set up.

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Common tech integration elements include^{26,27}:

- Built-in power and data
- Integrated wireless charging
- Multi-media capacity
- Easy-connect technology touch points
- Table-top touchscreens
- Articulated monitor arms
- Wireless streaming dongles

Conclusion

The spaces within which we work are in a state of uniquely rapid change. New generations of professionals, ever faster, smaller and more capable technologies, and greater insight into the impact of design brought about by research and data analysis are all informing the direction of this change. Companies seeking to maximize efficiency, productivity and profit will benefit from implementing flexible, activity-based work zones designed to easily integrate technology and maximize employee well-being.

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