The Private-to-Open Spectrum.

Since the advent of open plan in the 1960s, there's been a healthy conversation about open versus private offices. The long-running discussion has been fueled, in part, by semantics. Even seemingly clear terms such as "enclosed" and "open" can have a range of meanings.

In analyzing the responses of over 3,800 participants, Herman Miller found the attribute "collaboration and connection" was top of mind.

"'Enclosed to open' is a spectrum," notes Dr. Tracy Brower, director of Herman Miller Performance Environments. "At one end are completely enclosed, walled offices. Midway down the spectrum is systems furniture with standing-height panels and desk systems with seated-height panels. At the far end of the spectrum is a totally open area without any type of partitions to divide space."

Very few companies today fall at the extreme ends of the private-to-open spectrum. Most are somewhere in the middle, using a mix of the several kinds of spaces. That fact has been apparent in the Visioning workshops Herman Miller conducts. These sessions are based on the group brainstorming technique developed by George Land. Their purpose is to work with customers and their architect and design partners to envision an ideal office environment and then help them find out how to make it happen.

In analyzing the responses of over 3,800 participants, Herman Miller found the attribute "collaboration and connection" was top of mind. Respondents described this as a physical space that supports connection with others and promotes communication with them in formal and informal ways. Achieving collaboration and connection implies spaces on the "open" end of the private-to-open spectrum.

Yet, "retreat" was another attribute that made most top 10 lists. This was described as spaces that offer individuals one or more places to escape distractions and focus on work tasks or personal matters. This description sounds very much like the "private" end of the spectrum. Clearly, organizations desire a mix of spaces that let people both collaborate and concentrate. The million dollar question is: What is the right mix?

Context for the Discussion

The offices of the 1920s into the 1960s reflected the mass production mentality popular with Henry Ford and, before him, Fredrick Winslow Taylor. Rows of desks in completely open rooms became the norm. Largely in reaction to these "bullpens," Robert Propst invented Action Office®, the world's first systems furniture. Herman Miller, Inc., introduced this new way of working in 1968.

In his design, Propst sought to keep the ease of communication inherent in the bullpen. More important, he sought to temper that openness with partitions of various heights that were designed to give people more privacy. Systems furniture caught on and is now a common fixture in most offices, particularly in North America.

According to a survey the International Facility Management Association conducted of its members, the current breakdown of office types is 60 percent open plan, 32 percent private, and 8 percent bullpen.[1] These statistics indicate the prevalence of a mix of spaces within the average company. The trouble is, no two companies are alike. The right mix is one that reflects corporate culture, structure, goals, and branding—all the things that make an organization unique. The question is this: What is the right mix for *this* company, one that will best help it achieve its goals?

The first consideration in the decision of the mix of private to open space should be alignment of workspace and business strategy.

It's a question that's more relevant than ever. The new landscape of work is inherently global, exists physically and virtually, and enables any person to connect to any other person, information, or machine. The lifecycle of ideas, products, and entire businesses has accelerated from decades to years, months and even days. Companies are using every means at their disposal—technology, quality improvement, branding, and facilities—to solidify their positions in this new landscape.

Organizational Considerations: Strategy and Culture

The first consideration in the decision of the mix of private to open space should be alignment of workspace and business strategy. For example, in an effort to speed up decision-making, Herman Miller moved all its executives, most of whom had been sitting in private offices in different buildings, into a common area in the company's Front Door space. While not totally private, the new offices did offer some privacy through standing-height panels, and executives shared a private casual area.

The redesign did improve communication and decision-making, but after a few years of working in the new space, CEO Brian Walker felt that layout could work even harder for the leadership team. In 2013, the Front Door underwent a second redesign. Now executives sit in a completely open plan with no panels. The increase in eye contact and accessibility has made it faster and easier for the leadership team to connect with each other, their assistants, visiting clients, and employees walking through the space.

In fact, employees have to walk through the space in order to get to the building's best conference room and some project rooms. "The layout and design ensure there's no imaginary 'do not cross' line between executives and employees," says Jennifer Abbattista, Herman Miller's director of Integrated Applications.[2]

The redesign included other parts of the building, as well. A nice (but frankly underutilized) coffee bar area became a "plaza," which offers variety in the form of both furniture and arrangements. In addition to an extended coffee bar with seating on both sides, there are couches, tables and chairs, and a library area. An adjacent area of workstations, most of which are unassigned, accommodates triple the number of workers pre-redesign.

The entire space will continue to evolve. Herman Miller is using it as a living lab for what it calls the "Living Office," a different approach to managing people and their work, tools and products that support that work, and the places people come together to do it. The result is a more natural workplace that fosters greater connection, creativity, productivity and ultimately greater prosperity for individuals and their organizations.

The combination of increased density and variety has given the building new energy. Now people go there because they know it will lead to chance encounters. Abbattista says that when she goes there to work, "People come up to me all day

long saying, 'I'm glad to see you. I've been meaning to ask you something.' Those kinds of exchanges speed up work processes and increase co-creation."

It's tempting to jump to the conclusion that an open floor plan is good for everyone. But the reason it works for Herman Miller is that the facility is aligned with the company's business objectives. In general, work that involves joint analysis or problem solving, as was the case here, will likely benefit from shared space and tools. On the other hand, when confidentiality is paramount to a business's success, based on the kind of work it does, privacy becomes a priority.

Another consideration is corporate culture. Companies should be intentional about using the mix of space to either reinforce the current culture or help change to a preferred culture. Executives at one global real estate and property management firm wanted to increase interaction through serendipitous encounters. They incorporated small, informal meeting areas into their facility redesign. They also provided a coffee bar, which was intended to give people a place to connect in impromptu meetings. When the redesign was complete, the executives asked their administrative assistants to schedule their meetings in the coffee bar.

While those initial executive meetings weren't serendipitous, they did model the desired behavior, says Brower.[3] It wasn't long before employees started gathering there for informal, often unscheduled, meetings. "The modeling was critical," she says. "The Facilities department can do a lot to reinforce culture, but facilities alone cannot sustain or change a culture. All the company's policies, practices, and processes have to align to support the desired culture."

Other considerations include the types of workers a company has and the market it is in. The mix of private to open is likely to be quite different in an advertising agency, for example, than it is in a financial institution. The differences between organizations can be a result of how they define "open." A firm in the oil and gas industry may define the word differently than one in accounting and law, for example.

It's also important to think about a company's stage of organizational development. When a company is first starting out, everyone knows each other and what's going on. But once the company reaches a certain size (some put the number at 250 employees), structure, policies, and procedures need to be put into place to keep everyone heading in the same direction.[4] All these things factor into what makes the best mix of private to open space. Knowing the benefits and drawbacks of each kind of space can help companies arrive at the right formula.

A Spectrum of Choices, a Range of Advantages

The advantages afforded by both enclosed and open offices are real. First, let's look at the advantages of enclosed offices. In research conducted by Babson College's Working Knowledge Research Center, the enclosed office was associated with satisfaction with auditory/visual privacy, noise levels, getting work done, and job

Office layouts can contribute to the perception of personal control, however, and personal control is a contributor to worker satisfaction.

satisfaction as a result of the workplace environment.[5] Its main finding about the value of enclosed offices was "the confirmation of their value to those who prize privacy and quiet, and who must go 'heads down' into tasks requiring plenty of concentration."[6]

Office layouts can contribute to the perception of personal control, however, and personal control is a contributor to worker satisfaction. Private office dwellers have a lot of control, including control over when they are heard and seen (and whom they are seen with). In many cases they can also can control lighting and HVAC. Control is important because it has a direct impact on comfort, and the maximum control a worker has in a private office results in maximum comfort.

Privacy is directly related to comfort and the capability to contain sounds within the office. But what do people mean when they say they want a comfortable office? According to research Herman Miller conducted, the workstation attributes that workers around the world value and that presumably contribute to comfort and worker satisfaction are, in order of importance: Adjustable workstation chair, ability to meet with others at my workstation, a sufficient amount of personal storage, ability to personalize my workstation, ability to view colleagues from my workstation.[7]

Enclosed offices also convey status, which is the biggest determinant of whether or not a worker gets a private office.[8] Ninety-eight percent of the surveyed companies' executives and 89 percent of their senior management were in private offices, a percentage they reported hadn't changed much in the preceding 36 months.[9]

How much time busy executives actually spend in their offices is, to some companies, beside the point. One leading global financial company had a hierarchical culture that was very effective, and conveying status was an important part of that. "They were changing the mix of offices by adding more open offices, but they still wanted to demonstrate status. Because less of that status would be conveyed through private offices, they wanted to find other ways for the physical space to demonstrate status and hierarchy, and they were very clear about that," says Brower. Other ways to demonstrate status include the placement and size of offices, type of chair and technological tools provided, and flexibility of work schedule and location.

Whereas the strength of completely enclosed offices is privacy, the strength of a marginally more open office space, which can be created by adding windows, for example, or leaving doors open, is increased communication and interaction. The further along the spectrum toward "openness" a company moves, the more interaction and communication will take place.

The increase in communication happens on several levels. In a very open office, when someone takes a phone call from a vendor who won't be able to supply a part on time, for example, others can overhear it. That can translate into more people being able to act quickly on the information.

"More open work environments correlate closely to respondents considering themselves to be pivotal as both sources and seekers of daily information."

There are times when people would prefer that coworkers not know what's going on with their account or product or vendor, but those are often the very times that transparency is most important. It's easier to address and fix a problem that's identified and shared early. The same transparency can lead to empathy, understanding, and motivation. An engineering team that can overhear the support team as it addresses product issues has a better appreciation for those issues.

Working in an open environment may even change the way workers see themselves. According to the Babson research on networks, "More open work environments correlate closely to respondents considering themselves to be pivotal as both sources and seekers of daily information…although [the research suggests] people will do whatever it takes to get mission-critical information, regardless of the physical layout of the space."[10]

An increase in daily communication about concrete things like project schedules can reduce cycle times, and that's no small deal. But open spaces can bolster communication in other, deeper ways, too, that can have an even bigger impact on an organization, long-term. Open spaces speed up informal learning on teams. This includes tacit knowledge, knowledge about how work really gets done (i.e., corporate culture), and person-related information and knowledge, all of which are important to social networks and collaboration, and the trust collaboration requires.[11]

When pharmaceutical company Lilly redesigned its headquarters, it shifted from enclosed, assigned workstations to a more open floor plan that includes spaces specifically designed for focus, collaboration, and privacy. According to the Harvard Business Review, "In the initial series of pilots, Lilly saw workers' satisfaction with their workspace almost double, associated capital costs nearly cut in half, and the amount of time lost to distractions, waiting, looking for meeting rooms, and the like decrease by 16%."[12]

It's not that informal learning can't happen in companies that don't use open space; it's just that it takes more conscious effort and planning. Experts say to think of it as the difference between active and passive energy systems: both produce the same result, but the latter happens automatically, if you build it right.[13]

There is a final type of communication that a more open office supports: creativity-stimulating communication that results in innovation.[14] It's also the kind of communication most affected by separation.[15] Innovation is one of the Motley Fool's core values and the company's physical space both supports and reflects innovation. When growth required that the company take over another floor in its Alexandria, Virginia, headquarters, members of the design team decided that they wanted to be at the farthest end of the "private to open" spectrum.[16] The new space has no panels, partitions, or walls. "All of our desks are on wheels and if you come two months in a row it will look different the second time. Things change pretty quickly around here," says Sam Cicotello, the company's chief learning officer.[17]

Reduced productivity is a common concern related to open offices, but the reverse is true, particularly in team settings. The Harvard Business Review found that "Companies that encourage collaboration by switching from closed-offices to open-offices realize performance increases (speed and accuracy of work) by 440%."[18]

One study of software development groups found "the group that used 'war rooms' (shared rooms for teamwork) was twice as productive as the software group using private offices."[19]

Other researchers have found that "high levels of interaction and communication are linked to innovation and reduced time to complete projects."[20] An example of this is the NASA Jet Propulsion Laboratory's Team-X. It has consistently reduced the time it takes to complete tasks for hundreds of projects from three to nine months down to a few days. Ethnographers who studied the team in action found that part of the reduction could be attributed to the absence of "a bottlenecked management hierarchy" and the presence of an efficient knowledge network that was both explicitly designed and naturally evolved.[21]

At the heart of the productivity issue is the changing nature of work. Not long ago, many people were able to complete their work alone, without the involvement of others. Now, problems are more complex and a greater variety and diversity of resources are necessary to solve them. For many workers today, productivity is more about effectiveness (doing the right thing) than about efficiency (doing a thing right), and effectiveness requires communication. One of the top predictors of job performance was "the ability to have easy, frequent, informal interactions."[22]

A final advantage of a more open floor plan is that it often costs less money than enclosed offices, although there's less of a cost differential than there used to be, thanks to demountable walls (walls on a grid system that can be easily moved and remounted). Panel-based furniture can be reconfigured as the company shrinks or grows and as the needs of teams and individuals change. While it was not inventor Robert Propst's intention that panel-based furniture be used to fit more people into a space, many companies see that as a benefit, particularly during tough economic times.

Mixing Private and Open Offices

From a design standpoint, a facility is often made up of both private offices and open offices. A company that does have only private offices might find the layout problematic: one study showed that using only private offices "shut down inter-group collaboration."[23] Since most kinds of office workers spend about 55 percent of their time doing collaborative work and 45 percent doing individual work,[24] many companies find a blend of both kinds of spaces works best.

In order for this approach to be most effective, it needs to be well thought out. Who gets private? Who gets open? What are the criteria? Often space is assigned based on status, job function, or work mode.

For many workers today, productivity is more about effectiveness (doing the right thing) than about efficiency (doing a thing right), and effectiveness requires communication.

At one Canadian media conglomerate, managers who were entitled to private offices chose open spaces instead because they saw the advantages. "Being able to hear conversations is a barometer for them," says Holly Kriger, senior strategist with the Performance Environments Group at Herman Miller. "The redesign put them into the information loop, and they can make better decisions based on what they are hearing."[25] In addition, it gives them the opportunity to persuade informally, build credibility at a personal level, and model behavior.

Some companies reserve their private offices for people who do heads-down work almost exclusively, e.g., accountants or software programmers, sometimes putting two or three people in each office. Hewlett Packard Asia has figured out a way of keeping space both open and conducive to heads-down work: It allocates large sections of open space as totally quiet zones—cell phones off, laptops muted, no talking or making calls, no music.

In Germany and the Netherlands, using "group rooms" is a popular answer to the private/open question. The rooms are designed to accommodate from 8 to 25 people regardless of the total size of a department, "a size, at a team level, where people can get to know each other well socially, as well as learning about their work-related skills and knowledge."[26]

Many companies in Japan have a similar layout. Each room is a ka, or department. Within each room are several han (or sections). Each han is composed of a dozen or so desks, all touching, so the effect is the same as one big table. This arrangement—based as much on culture as business practice—does allow the boss to be aware of what everyone is doing.

Providing Options for Places to Work

Eco-diversity, activity settings, or the Living Office (Herman Miller's term) all refer to providing different places to work and allowing the worker to choose.

Traditionally, people have thought about the workplace as full of open or closed offices or even a mix of the two, but there is another way of looking at the workplace. Eco-diversity, activity settings, or the Living Office (Herman Miller's term) all refer to providing different places to work and allowing the worker to choose the place in which he can be most effective, given the work he needs to do right then.

Some people have compared this approach to a house or college campus. Each offers a variety of settings, and in both, people are free to choose. Settings may include havens, hives, meeting spaces, and plazas. The purposeful arrangement of these settings into landscapes make for a workplace that's intuitive. "In a Living Office, people should immediately grasp what they can do, where they can go, what things are for, and why they are the way they are."[27] The end result is a workplace that fosters greater connection, creativity, and productivity.

Making Private Feel More Open

Many companies don't have the luxury of renovating their entire space or building a new office building, however. Fortunately, it's possible to achieve an ambience of openness even in a facility that has mostly private offices. Suggestions include encouraging workers to leave their doors open, using lighter colors, integrating plants (to bring "nature" indoors), and installing windows or see-through panels, which let light in and allow for visual contact. In addition, the private office itself can be loosened up and lightened up by substituting freestanding furniture, e.g., a small table and something that offers technology support, instead of the standard issue credenza and U-shaped peninsula.

More costly suggestions include installing atriums and escalators, which are effective ways to provide visual contact between floors and allow for "people browsing." Research has shown that the longer the sight line, the better connected a group is and the more face-to-face interaction will result.[28]

It's also possible to get some of the benefits of an open office by designing "functional inconvenience" into the facility (as Herman Miller did by placing project rooms at the far end of the leadership area). Inspiration and creativity often happen when people bump into each other, so the goal is to be intentional about the adjacency of teams, the location of workstations, and traffic patterns to increase the likelihood of spontaneous meetings.

"Informal learning will be higher in organizations with space allocation policies that widen the circle of chance encounters," writes Franklin Becker, director of the International Workplace Studies Program at Cornell University. "Functional inconvenience assumes the journey counts. Walking a slightly longer and circuitous route is not a waste of time if the longer journey also creates more opportunities for chance encounters with people outside one's own team or department."[29]

For those companies who decide that, given their culture and business objectives, "going more open" is right for them, there are ways to optimize the functionality of those workspaces for workers.

• Use a configuration that gives workers the option of facing away from others or toward others. Or use curvilinear work surfaces that are easy to gather around at the front of the space. Some are inverting the office landscape—with higher partitions at the front—and adding a privacy door to add enclosure. This approach often includes lower partitions at the back of the workstation with "shutters" that can be opened for communication or closed for separation from team members. These spaces support interaction but also give workers a degree of control—a way to signal they are doing "heads down" work without being completely cut off from activity.

- Provide a variety of partition-like options for individual workspaces, e.g., moveable screens, or even plants, which can be strategically placed. While these won't provide total privacy, they do allow others to see if the occupant is busy or available, and they help workers feel in control of their privacy.
- Manage acoustics through sound masking. The best sound-masking technology produces a speech-range spectrum that's on the same frequency as the human voice and sounds like moving air or rushing water. This "pink noise" is preferable to white noise, which masks sound by introducing a broader spectrum of frequencies into the environment. Sound management is most effective when planned for in the early stages of design rather than as a temporary fix later.
- Add a padded file cabinet that doubles as a perch or provide guest seating that normally resides outside the workspace and can easily be pulled in when needed or used to signal when a coworker isn't invited to linger for a sit-down visit.
- Add shared mobile tables that people can use to temporarily expand work surface space.
- Provide other group open or group enclosed meeting spaces close by that can be used on an ad-hoc basis. Again, the key is to provide a choice of spaces, as there are some situations that demand a high degree of privacy.
- Provide phone booths—small, enclosed spaces individuals can use to make private calls. In the absence of such spaces, people will commandeer conference rooms to get privacy.

Most companies today are moving further down the spectrum toward openness in their facilities. Using change management practices (like the ones outlined in Herman Miller's research summary "How Change Management Makes You Good at Change") increases the likelihood of success.

The Right Answer Is the Unique One

The reason there's still a discussion over whether an open or private layout is best is that either can be effective. A company's culture, industry, employee population, history, and leadership all make it unique. That's why each company must decide for itself if its facility should be predominantly open or predominantly private. How much do you value communication and collaboration? How much do you value privacy and concentration? How will you balance and mix these approaches? For whom—for which types of workers? For which level of workers? And, ultimately, what will work best for your organization's unique needs?

Even when the organization's answer is "collaboration, because that will get us to our goals," there will likely be some variation within departments. The key is to be intentional about the tradeoffs. The most successful facilities—whether they skew open or closed—are a result of a company first considering its business objectives and culture or desired culture. Only then can a company know which mix of space will best support it.

Most companies today are moving further down the spectrum toward openness in their facilities.

Notes

1. Space and Project Management Benchmarks: Research Report #34, p. 32. The data from 2010 is the most recent available.
2. Phone interview, July 18, 2013.
3. Phone Interview, August 1, 2013
4. Franklin Becker, "Organizational Ecology and Knowledge Networks," *California Management Review*, Winter 2007, p. 57.
5. Salvatore Parise, Michael Beers, and Tom Davenport, "Workspace Design & Networks," Babson Working Knowledge Research Center white paper, October 27, 2007, p. 1.
6. *Ibid.*, p. 6.
7. Herman Miller, in conjunction with forward thinking, inc., "Individual Workplace Preferences and Attributes," July 2013.
8. Herman Miller, Inc., "Project Ryan," Herman Miller internal research document, 2007, p. 4.
9. IFMA, Space and Project Management Benchmarks: Research Report #34, p. 32. The data from 2010 is the most recent available.
10. Salvatore Parise, Michael Beers, and Tom Davenport, "Workspace Design and Networks," p. 5.
11. Franklin Becker, "Organizational Ecology and Knowledge Networks," p. 43.
12. Andrew Laing, David Craig, Alex White, "Vision Statement: High-Performance Office Space," *Harvard Business Review*, September 2011.
13. Franklin Becker, "Organizational Ecology and Knowledge Networks," p. 43.
14. Thomas J. Allen, "Architecture and Communication among Product Development Engineers," *California Management Review*, Winter 2007, p. 34.
15. Herman Miller, Inc., in collaboration with Gensler, "When Groups Work," quoting Tom Allen, *Managing the Flow of Technology*, Cambridge, MA, MIT Press, 1977, slide 8, December 2007.
16. Herman Miller, The Motley Fool case study, http://www.hermanmiller.com/research/case-studies/the-motley-fool.html, accessed August 1, 2013.
17. http://culture.fool.com/2013/04/15/core-value-2-innovative/
18. Colleen Kane, "Goodbye Private Offices, Hello Open Plan," CNBC, August 3, 2012, http://www.cnbc.com/id/48488208 accessed August 12, 2013.
19. Salvatore Parise, Michael Beers, and Tom Davenport, "Workspace Design and Networks."
20. Judith H. Heerwagen, Kevin Kampschroer, Kevin M. Powell, and Vivian Loftness, "Collaborative knowledge work environments," *Building Research & Information,* November-December 2004, 32(6), pp. 510-528.
21. John Chachere, Raymond Levitt, and John Kunz, "Can You Accelerate Your Project Using Extreme Collaboration? A Model-Based Analysis," Stanford University Center for Integrated Facility Engineering Technical Report #154, November 2003.
22. Salvatore Parise, Michael Beers, and Tom Davenport, "Workspace Design and Networks."
23. *Ibid.*
24. 2013 Office Trends report, Herman Miller.
25. August 8, 2013, interview with Holly Kriger, Herman Miller.
26. Franklin Becker, "Organizational Ecology and Knowledge Networks."
27. Herman Miller, "The Living Office," 2013, p. 18.
28. "Understanding the Effects of Design on Workplace Culture" presentation by Dr. Mahbub Rashid, May 30, 2007.
29. Franklin Becker, "Organizational Ecology and Knowledge Networks," p. 54.