Privacy Matters

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Research has shown that privacy disruptions created by acoustical and visual distractions are a major complaint when evaluating workplace job performance and satisfaction. Understanding what constitutes privacy and how the various types of privacy relate to the work environment, as well as how to regulate the interaction between individuals and environmental stimuli, is critical to designing effective workplaces.

What Does Privacy Mean — and How Important Is It?

Unprecedented changes in workplace privacy through technology, architectural design, legislative policies, workforce diversity, and global issues impact everything from worker productivity to health. Privacy protection may arguably be one of the defining issues of our time (Clay, 2004).

According to a new Basex study, office workers spend a quarter of their day consumed by interruptions and distractions — wasting time and money (Wallis, Steptoe, & Cole, 2006). This study determined that this constant splintering and diverting of worker attention consumed up to 2.1 hours of worker productivity per day. These lost hours included not only interruptions and distractions but also the recovery time associated with getting back on task.

With the current trend toward open-plan office environments, interruptions and distractions such as overhearing a coworker's conversations are an everyday occurrence. Does overhearing your coworkers' conversations interrupt your train of thought and, at the very least, temporarily interfere with your ability to concentrate on your work? If so, you're not alone.

Scenarios like this play out thousands of times a day around the world. BOSTI conducted a study from 1994 to 2000 to find out what workers considered to be the most desirable workplace quality (Brill, Weidemann, & BOSTI Associates, 2001). The study included 13,000 people of several age ranges working in many different types of jobs, and covered 40 business units representing a variety of industries of both old and new economy. The most desired quality, it turns out, is the ability to perform solo work without distraction.

Privacy Defined

A number of definitions for privacy exist. Early privacy definitions focused on a person's right to individual privacy, to be alone and away from other people (Chapin, 1951; Bates, 1964). Research on the topic quickly expanded beyond this definition to include a person's environment. In a discussion on privacy, Schwartz (1968) stated "There exists a threshold beyond which social contact becomes irritating for all parties; therefore, some provision for removing oneself from interaction and observation must be built into every establishment." It is interesting that this statement still appears true today for a lot of people in the work environment.

In 1976, Altman grouped the existing definitions into three categories:

- One group of definitions emphasizes seclusion, withdrawal, and avoidance of interaction with others.

- A second type of definition puts less emphasis on exclusion, but implies that privacy involves control, opening and closing of the self to others, and freedom of choice.

- A third definition identifies privacy as the selective control of access to the self or to one's group.

The third definition is probably the most recognized in the field of environmental psychology and the one which really comes into play when considering the work environment. Other researchers have further defined privacy to better identify how it addresses the concerns of working individuals. O'Neill (1994) defines privacy as "the degree to which the employee feels a sense of being on display to others and auditory privacy." Whereas Kupritz (1998) defines privacy as "The regulation of interaction between the self and others and environmental stimuli."

Regulation in Kupritz's (1998) definition implies that people attempt to control the amount of privacy that they have depending on the situation. Archea (1977) discusses privacy regulation as "how the selection of one's location and orientation within an architecturally bounded setting can affect both the acquisition of information about surrounding activities and the abilities of others to take notice of one's own behavior. Within this framework selective conspicuousness is suggested as the chief means of privacy regulation. Selective conspicuousness involves a trade-off between the environmental and behavioral options available for concealing or disclosing information about oneself with the physical environment presenting certain initial conditions upon which behavior is contingent."

Pedersen (1988) defines the regulation of privacy more succinctly as "the process of striving to maintain an optimal balance between privacy and social activity."

Types of Privacy

For the purposes of this paper, we will adopt the following definition of privacy as it relates to the work environment: the regulation of interaction between the self and others and environmental stimuli, which is a dynamic, boundary-regulating process that changes depending upon the particular situation and circumstances at the time (Kupritz and Haworth, Inc., 2005). So what kinds of privacy need to be considered when exploring this topic for the work environment?

- Acoustical privacy, including speech or conversational privacy and freedom from noise distractions

- Visual privacy

In terms of privacy regulation, the work environment needs to focus on both an individual's and group's ability to regulate visual and acoustical privacy to help maintain the optimal level of social contact that each person needs (Kupritz & Haworth, Inc., 2005). Dissatisfaction occurs from being in situations that deviate from what a person considers optimal. Common meanings for privacy reflect these relationships:

- Retreating from incoming stimulation: being able to concentrate, being isolated, having quiet spaces, lack of interruptions, and minimizing noise and visual distractions are common meanings that workers share for retreating from incoming stimulation.

- Regulating outgoing information: talking privately on the phone, in person, or in a group are common privacy meanings that workers share for regulating outgoing information.

- Architectural privacy for regulating incoming stimulation and outgoing information: a door, conference room space for confidential meetings, a personal workspace facing away from the main traffic flow, taller panel

heights, and floor-to-ceiling solid walls are common privacy meanings that workers share for architectural features.

Acoustical Privacy: This includes speech or conversational privacy and freedom from noise distractions. Speech privacy becomes a concern when people feel like they no longer have confidentiality when having a conversation on the phone or with a coworker. Specific examples are:

- Not feeling like you can talk privately on the phone or in person, or verbally evaluate people

- Being overheard by someone in another workspace when talking in a normal voice in one's own workspace

- Inability to hold confidential conversations

- Lack of confidential spaces for meetings in personal office work areas and conference rooms

Equally important is the freedom from noise distractions in the work environment. Although noise has the same technical definition as sound, it is probably more accurately defined as unwanted sound. Noise has been found to affect a person's work and social behavior by causing annoyance, interference, and more, and to create physical changes which result in higher stress levels (O'Neill & Evans, 2000). Noise in the work environment can be related to people, office machinery, or office layout. In general, though, acoustical distractions in the open-plan office are most frequently from the behavior of coworkers rather than office machinery.

Examples of noise distractions:

- Overhearing conversations by individuals or groups

- Environmental background noises such as radios, ventilation systems, or piped-in music

- Background levels that are too quiet, so sounds made in the office stand out too much

- Having an office near the vending area,

coffee machines, photocopier, etc.

- A workspace located near high-traffic areas

Visual Privacy: It is important to recognize that there are two aspects to visual privacy — being visible to coworkers and seeing coworkers in the office. Being visible to coworkers was found to cause workers stress because they felt like they were being watched while they worked — especially by their supervisors — or had the sense of being in a fishbowl created by interior glass panels (Goodrich, 1982). On the other hand, seeing coworkers working nearby, seeing people walk past their offices or stopping to say hello visually disrupted workers. Kupritz (1998) found that visual distractions result in loss of production time and added mistakes. Sundstrom, Town, Brown, Forman, and McGee (1982) found a correlation between the rating of privacy and how many sides of the workspace were enclosed by partitions. With each enclosed side there was roughly a linear increase in privacy. A study by Duvall-Early and Benedict (1992) found certain predictors provided workers with a perception of privacy:

1. Best predictor: Having a door was identified as the architectural characteristic maximizing visual privacy.

2. Next predictor: Not having a coworker visible — suggests a perception of privacy if workers are back to back.

3. Next predictor: Not having a coworker visible within 10 feet of workstation.

This study concluded that visual privacy was perceived to be greater when one was free from observation. It should be pointed out that these predictors apply to distractions as well as confidentiality.

Enhancing Privacy in the Work Environment

Ultimately, research has found that privacy problems associated with acoustical and visual distraction caused by workplace activities are considered to be one of the main complaints impeding job

performance and satisfaction in the workplace today. Therefore, it is important to find ways to enhance privacy in the work environment. Since there is overlap between the different types of privacy, one must consider all of them when coming up with workplace solutions. These solutions usually involve either the design or layout of the work environment or the behavior of coworkers, and can be placed into two main categories:

• Architectural issues

• Social and behavioral issues

To further understand how to manage workplace privacy for optimum job performance, Kupritz & Haworth, Inc. (2005) undertook two studies at a large Midwestern manufacturer to identify architectural privacy features that impact individual and group work. Four different job types were included in the study: Administrative support services, business professionals, technical professionals, and managers. The research questions for the two studies asked, "What architectural privacy features do workers perceive as impacting individual and group work?" and "How do individual and group privacy needs compare with group collaboration needs at work?" In the Phase I study, 48 office workers across the four job types were interviewed about office design features, conditions or situations that impact their individual and group work. In the Phase II study, 200 office workers across the same job types completed a survey questionnaire designed to measure the strength of relationship between design features and privacy activities.

The findings identified a broad range of design features that workers across job types strongly agreed relate to privacy activities for performing individual and group work. What appears to differ is not that a greater need for privacy or collaboration exists across job types, but the ways in which workers perceive that need to be met through design features that support privacy and collaboration. Overall, the findings of these studies enhance corporate ability to target the most critical design features that support privacy and collaboration needs to support individual and group work.

Architectural Issues

Sundstrom and Kamp (1980) stated "architectural privacy refers to the visual and acoustical isolation provided by the physical surroundings of an environment." Oldham & Rotchford (1983) expressed "architectural privacy refers to the extent to which an employee's individual workspace is accessible to the intrusion of others." Kupritz (1998) further refines both of these to state that architectural privacy refers to the visual, acoustical, olfactory, or tactile isolation supplied by the physical environment to regulate incoming stimulation and outgoing information. Ultimately, this means that regulating incoming stimulation and outgoing information helps to maintain an optimal level of social contact. Dissatisfaction occurs from being in situations that deviate from what a person considers optimal.

While architectural privacy is most commonly associated with visual and acoustical isolation (Sundstrom, Burt, & Kamp, 1980), it also involves olfactory and tactile isolation supplied by the physical environment. For example, the physical environment can provide olfactory isolation from unwanted food smells originating from a dining or break area. The physical environment can also provide tactile isolation from uncomfortable HVAC conditions such as too much airflow blowing directly on a worker at their workstation or uncomfortable, fluctuating temperatures in a workspace (Kupritz & Haworth, Inc., 2005).

Recommendations related to architectural issues that will improve privacy are:

• *Provide architectural privacy features that accommodate the needs of specific job types.* Certain work practices appear to have particular architectural privacy needs that other work practices do not have, in addition to architectural privacy needs that all work practices share in common (Kupritz & Haworth, Inc., 2005). These differences in architectural privacy needs indicate that providing a generic template of architectural privacy features for all job types will not accommodate privacy needs across the board.

• Kupritz and Haworth, Inc. (2005) found workers across job types did not perceive similar weightings of importance for most design features

including architectural privacy features. Examples of job type differences identified in this study include:

• Administrative support services, business professionals and managers felt strongly that "having flexible furniture and equipment that can be rearranged to fit work needs" was important for concentrating, whereas technical professionals did not.

• Business Professionals, managers, and technical professionals felt strongly that "having a personal workspace with floor-to ceiling solid walls" or "a door to close" helped minimize visual distractions, whereas administrative support services did not. This, however, may be explained by the fact that administrative support services are not accustomed to having these design features.

• Business professionals and administrative support services ranked "having sufficient lighting and controls" as high in importance for individual and group privacy, whereas managers and technical professionals ranked this design feature as low in importance for individual and group privacy.

• Managers ranked "having a conference room available when needed" as high in importance for group privacy, whereas business professionals, administrative support services and technical professionals ranked this design feature low in importance for group privacy.

• *Target the most critical design features that support basic job functions, collaboration, and privacy.* Particular design features that support basic job functions, collaboration, and privacy were ranked highest in importance across job types in the study completed by Kupritz & Haworth, Inc. (2005). This finding redirects organizations to deploy a three-pronged solution that accommodates all three issues rather than accommodating one issue alone without taking other issues into account. The vast majority of privacy research during the past thirty years

documents the minimal gain made in communication and collaboration from open-plan cubicle designs and bullpen arrangements at the expense of privacy (Kupritz, 2003).

Kupritz and Haworth, Inc. (2005) found workers across job types ranked the following two design features that support basic job functions in the top eight design features:

• "Having flexible furniture and equipment that can be rearranged to fit work needs"

• "Having a sufficient worksurface to spread out work"

Three of the four job types agreed that having flexible furniture and equipment that can be rearranged to fit work needs related to the privacy activity of concentrating for performing individual and group work. All job types strongly agreed that having a sufficient worksurface to spread out work related to concentrating for performing individual and group work. Workers across job types ranked the two following architectural privacy features that deal with orientation and distance in the top four to seven design features:

• "Having my personal workspace facing away from foot traffic"

• "Having my personal workspace located away from high foot traffic aisles"

All job types strongly agreed that these two design features were related to multiple privacy activities for performing individual work, including concentrating, talking privately on the phone, minimizing interruptions, minimizing noise distractions, and minimizing visual distractions. Careful planning and foresight is needed in the search for the happy medium that allows groups of individuals to remain private enough to be productive,

while enhancing their ability to collaborate (Kupritz & Haworth, Inc., 2005). While some privacy is inevitably lost in the transition from individual to group work, design solutions that support all three issues — basic job functions, collaboration, and privacy — may allow groups of individuals to remain private enough to be productive and still collaborate effectively.

• *Provide architectural privacy features that support both individual and group work needs.* The Kupritz and Haworth, Inc. (2005) study determined that workers across job types related some architectural privacy features to performing individual and group work, but related other architectural privacy features to only one type of work. For example, workers across job types perceived "having a conference room available when needed" as important for performing group work and most privacy activities but not important for performing individual work. This may be because it is impractical for workers to go somewhere else, such as a conference room, for individual privacy (Brill, et al., 2001).

• *Provide design solutions that properly orient and distance workers away from main traffic corridors and heavy foot traffic.* The Kupritz and Haworth, Inc. (2005) study revealed that workers strongly perceived that proper orientation and distance were higher in importance than walls, panels, or doors for providing privacy. This finding may depend upon the relevancy to the particular work situation and circumstances. Prior research in another manufacturing industry involving engineers determined similar findings (Kupritz, 1998), however, research in a service industry involving workers with supervisory duties ranked architectural privacy features such as walls, panels, and doors much higher in importance than architectural privacy features dealing with orientation and distance (Kupritz, 2003).

• *Locate workstations away from centralized noisy areas, such as restrooms, coffee stations, water fountains, mail areas, and noisy equipment.* Centralized noisy areas, typically located on main traffic corridors, impede privacy and hinder individual and group work. Also, workers often converse with coworkers in these areas, further contributing to privacy distractions (Brill et al., 2001; Kupritz, 1995).

• *Provide design solutions that support architectural privacy based on the types of privacy activities workers engage in and their duration rather than job complexity alone.* Do not assume that job types with less complexity need less individual privacy (Kupritz & Haworth, Inc., 2005; Brill, et al., 2001; Sundstrom, Burt, & Kamp, 1980). The need for individual privacy may have more to do with the types of privacy activities, such as concentrating or talking privately face-to-face, and the duration of these activities rather than job complexity alone.

• *Design acoustically isolated work groups for privacy.* Kupritz and Haworth, Inc. (2005) determined that workers across job types preferred their group work areas to be enclosed in panels that were the same height or higher than their individual workspaces. Brill et al. (2001) recommended that for noise generated by adjacent work groups, enclose work groups in floor-to-ceiling walls but provide the work group with open office workspaces. Brill et al. (2001) points out that this solution may not be flexible enough to accommodate various work group sizes.

For noise generated inside a work group, Brill et al. (2001) recommended that individual workspaces be designed as "cockpit offices" enclosed in ceiling-high walls and doors. Caution is advised here, as subjective and objective measurement of smaller workspaces is needed to validate this recommendation.

Further, a definitive answer on the importance of providing ceiling-high walls and doors in workspaces has not

been found. The Kupritz and Haworth, Inc. (2005) study revealed that while workers across job types strongly agreed that having a workspace enclosed in 64"-, 68"- or 80"-high panels or floor-to-ceiling solid walls supported multiple privacy activities, workers across job types generally ranked these design items average to lower in importance than other design features to perform their jobs.

• *Provide sufficient lighting and controls for workers to regulate privacy.* The Kupritz and Haworth, Inc. (2005) study revealed that workers across job types strongly agreed that having sufficient lighting and controls was related to the privacy activity, concentrating. However, certain job types ranked this design feature as very important to have at work while other job types ranked this design feature lower in importance.

Although minimal research has been conducted on lighting levels to regulate privacy in the workplace, early research (Goodrich, 1982) determined that varying task lighting that provides higher light levels on the primary worksurface and reducing the overall ambient lighting levels seemed to increase the worker's sense of perceived privacy.

• *Space planning should be designed in concert with HVAC systems so airflow does not blow directly on a worker at a workstation or conference table.* The Kupritz and Haworth, Inc. (2005) study determined that airflow blowing directly on workers while seated at their workstations or at a conference table was distracting, impeded privacy, and hindered individual and group work.

• *HVAC systems should be designed to deliver consistent, comfortable temperatures.* The Kupritz and Haworth, Inc. (2005) study determined that uncomfortable, fluctuating temperatures in the workspace were distracting, impeded privacy, and hindered individual and group work.

• *Provide workspaces that isolate workers from potential distracting smells originating from dining and break areas.* Research conducted in Europe indicates that olfactory context may have a mediating influence on perceptions of visual and acoustical privacy (Davis, 1990). While air quality has improved considerably due to smoke-free facilities, designers should still pay attention to environmental smells that could distract workers, such as food originating from dining and break areas.

• *Provide older workers with workspaces and work tools for privacy that allows them the same opportunity as their younger counterparts to perform efficiently.* Kupritz (2003) determined that although older workers performing supervisory duties may not need special design adaptations, they did seem to need different physical features than their younger counterparts to accommodate privacy needs. The study examined architectural privacy features and compared the perceptions of older workers (60+ years old) to middle-age workers (35 to 50 years old).

Social and Behavioral Issues

Social and behavioral issues are about institutional practices, including formal and informal policies and social norms, and how individuals and groups act in the work environment and perceive their surroundings. This relates to individual and group privacy or having control over contact with oneself or one's group in terms of interruptions, autonomy from supervision, and preventing items being borrowed from the workspace. Studies have found that control over social contact, or the lack of control, can have a significant effect on one's perception of their environment. Marans and Spreckelymeyer (1982) found that "people with a greater degree of control over their immediate environment were more satisfied than those having a diminished amount of control." It has also been found that when people cannot control communication with others they actually communicate less. Thirty years of privacy research reveals that a lack of control over accessibility to the individual or work group can contribute to negative effects on job performance and satisfaction (Brill et al., 2001; Kupritz, 2003).

Examples of distractions related to access and control of oneself or one's workspace that impeded work or caused stress for workers in open-plan offices:

• Lack of control over accessibility

  » Not being able to control social contact, distractions, and interruptions

  » Powerlessness to control access to and use of one's workspace

  » Coworkers borrowing materials from workspace without permission

• Autonomy issues

  » Lack of autonomy over supervision

  » Not being autonomous from supervision

  » Not being able to personalize the workspace

Physical resources devised or deployed by designers can help users manage privacy better but this does not necessarily mean individuals and work groups will obtain their desired privacy, as social or behavioral issues may still be interfering (Kupritz, 2000a). For example, social mechanisms under an organization's control can impede or facilitate privacy through office policies and social norms established within the organization, such as not having a well-defined access policy.

What's more, individuals and groups also bring the deeper values and assumptions they share about privacy, conditioned by the larger culture, to their work environments (Kupritz, 2000b). In today's global environment, cultural diversity cannot be overlooked.

Recommendations to address social and behavioral issues that will improve privacy:

• *Involve human resources professionals in training workers on effective ways to regulate privacy* — such as when it is appropriate to interrupt and when it is not — and helping employees establish norms and protocols for the workplace. The cultural practice of workers interrupting individuals and groups was consistently elicited

across job types as impeding privacy and hindering individual and group work (Kupritz & Haworth, Inc., 2005). Human resources professionals should work with designers to ensure that facilities support the culture (Grossman, 2002) relative to institutional practices and culturally diverse work groups.

- *Provide flextime opportunities to support individual and group privacy needs.* The institutional policy for flextime was consistently elicited across job types as supporting individual and group privacy needs (Kupritz & Haworth, Inc., 2005). Additionally, organizations should consider flextime opportunities outside prime business hours. In this way, workers are more readily available for group collaboration and incidental learning opportunities and supervisors are physically available to answer immediate work questions from direct reports during prime hours.

- *Provide flexible semi-fixed and fixed feature designs that workers can manipulate to help regulate privacy.* Provide adjustable, moveable furniture and equipment that allow workers the opportunity to adjust psychological distances and angles of semi-fixed design features away from their line of vision. (See the pioneering work of Mehrabian (1976) and Kupritz (1995, 2000a, 2000c).) Selecting lightweight accessories and work tools that workers can manipulate for privacy also helps to limit visual access and exposure.

Individuals and work groups position themselves around design features such as furniture, equipment, and accessories, through the subtle manipulation of visual access and exposure (Archea, 1977). These physical resources enable workers to regulate privacy through their own means. People not only position themselves around fixed design features such as doors and partitions to regulate privacy, they also manipulate the design feature itself if flexibility allows (Kupritz, 2000b).

Accommodating the worker's ability to manipulate design features to help cope is far more important than originally thought (Kupritz, 2002). Giving workers some sense of control over their physical environment — both actual and perceived — can also enhance physical health and combat stress (O'Neill & Evans, 2000).

Conclusion

Understanding that privacy as it relates to the work environment is a complex issue and involves regulating interaction between individuals and environmental stimuli is important. It is also important to remember that a worker's need for privacy doesn't exist in a vacuum — accommodating the privacy needs of specific job types and the collaboration needs of coworkers may allow groups of individuals to remain private enough to be productive while enhancing their ability to collaborate. By following the guidelines outlined, designing a workplace that provides workers with that most desired quality — the ability to do distraction-free solo work — is possible.

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