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Michael Rodriguez

*University of Connecticut*, [michael.a.rodriguez@uconn.edu](mailto:michael.a.rodriguez@uconn.edu)

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# Creating Spaces for Innovation in the Workplace

Michael Rodriguez

## Introduction

When libraries create innovative spaces—or spaces for innovation—they are mostly public-facing spaces. They might be learning commons, makerspaces, collaboration rooms, digital production labs, 3D printing stations, innovation studios, kiosks, incubators, and other buzzwords for physical spaces designed to foster creative productivity through technology and collaboration. Library after library has redesigned its public spaces to be more spatially appealing, welcoming, navigable, and interactive. Libraries of all types are transforming static rows of bookshelves into spaces for their users to produce knowledge and interact with gadgets. User experience is among the hottest of job titles, and the user-first mentality is helping libraries to survive and thrive. At the same time, these transformations have the effect of framing library innovation as heavily public-facing and presenting innovation in terms of technology adoption and makerspaces. Spaces that foster intra-organizational, entrepreneurial innovation by library workers are no less essential yet are largely overlooked in the literature and in practice.

How and why should libraries create spaces to foster innovation within the organization? To answer, this chapter draws on studies, concepts, and models from inside and outside the library world, buttressing that research with the author's own experiences in academic libraries. This chapter makes the case for spaces as vital to creating and sustaining innovation cultures in library organizations. How can libraries build serendipity and agility into workplace design? How can they draw on technologies to brainstorm, collaborate, and track ideas and projects? How can they sweep away physical and mental clutter to free up brainpower and time—and

money—for innovation? This chapter seeks to demonstrate to library leaders at all levels how to design safe, engaging, and adaptable workplace environments that foster entrepreneurship while underscoring the positive outcomes for the organization, for staff, and for end users.

## Innovation and Intrapreneurship

Definitions are a prerequisite for understanding the value and impact of innovation spaces in the workplace. “Innovation” means to convert concepts into new processes or products, or to make existing processes or products more effective or efficient, with transformational potential for the organization doing the innovating.<sup>1</sup> Innovation is a “core renewal process” that enables organizations to evolve their products and services continuously to lead or align with consumer markets or, in the case of libraries, user needs.<sup>2</sup> The term “spaces” simply means physical or online environments, be they offices, buildings, studios, or software applications.

Next, librarians must differentiate “innovative spaces” from “innovation spaces.” Like the Guggenheim Museum’s spiral interior, innovative spaces may be novel or exciting but do not necessarily foster innovative work being done within those spaces. The key question, then, is not whether a space features innovative or creative design but rather whether the design fosters innovation or creative output, and how it does so. Recognizing this distinction, Bloom and Faulkner define “innovation spaces” as “physical or virtual spaces that enable and support creative problem solving (technological or otherwise) of those who participate in the space.”<sup>3</sup> This definition highlights the collaborative, communal aspect of innovation spaces and notes the frequent technological component without making technology a prerequisite for innovation—a key distinction in the era of triumphalist makerspaces and digital production labs. This definition is also open-ended, applying to spaces designed for use by patrons or librarians alike.

This is another key point—innovation spaces should foster creative problem solving *by the librarians*. This need is commonly overlooked. Most staff sit in static offices and cubicles or at service desks. Staff spaces have not been transformed alongside public-use spaces, and clear-cut incentives are lacking for administrators to prioritize the transformation of employee spaces. Real disincentives exist for administrators of publicly owned libraries in towns and universities, which frequently face pressure to curtail the salaries and benefits of public employees. Spending taxpayer money to craft what critics may see as lavish and unnecessary workspaces may be seen as too politically fraught a road for administrators to tread. This chapter contends otherwise.

Innovation spaces power intrapreneurship—initiatives, spearheaded by staff rather than administrators, to revitalize organizations from within by creating new or improved products, services, or processes.<sup>4</sup> Intrapreneurship includes traits such as risk taking, creative problem solving, and proactive behavior.<sup>5</sup> As Anthony Molaro, a professor of library and information science at St. Catherine University, points out, entrepreneurial spirit is not nearly as widespread as it should be in libraries, which tend to be slow-moving bureaucracies that follow innovations rather than source them.<sup>6</sup> “A large organization,” notes management authority Peter F. Drucker, “is effective through its mass rather than through its agility.”<sup>7</sup> The implication is that innovation works slowly, if at all, when it takes place in the form of top-down, bureaucratic directives. The key is to create physical and mental spaces that encourage and support intrapreneurship and that enable innovation to develop organically within even the most cumbersome bureaucracies.

### Innovation Spaces in Libraries

As design consultant Elliott Felix observes, “Models of innovative, effective staff work spaces are rare, perhaps because attention to such spaces is itself rare.” Exceptions include the

James B. Hunt Jr. Library at North Carolina State University (NCSU), which co-locates and mixes staff from various departments and fosters collaboration with shared informal workspaces. The Powell Library's Inquiry Labs at the University of California at Los Angeles integrate staff and user spaces.<sup>8</sup> The University of Connecticut's Hartford campus library will share a building with the city's public library and develop shared spaces for public and academic users as well as librarians. The Fourth Floor at Chattanooga Public Library is a public makerspace that doubles as innovation beta space and ground zero for the library's user experience designers.<sup>9</sup> However, such models are rare, or at least not widely discussed, compared to the plethora of public-facing innovation spaces. The library literature on workplace innovation spaces is also lacking, aside from a handful of magazine articles, conference presentations, and strategic plans.<sup>10</sup> These exceptions notwithstanding, most libraries of all types simply have not invested thought and resources into creating innovation spaces for staff. This is unfortunate, as spaces have real impact on the workers who inhabit them—and on the organizations that in turn rely on those workers.

### Spaces Impact Workers

“Physical space is the biggest lever to encourage collaboration,” notes human analytics authority Ben Waber.<sup>11</sup> Spaces bring individuals together or keep them separated. Serendipitous encounters between coworkers who have different roles or departments foster cross-fertilization of ideas and talent. People can enjoy inhabiting a physical space, or they can take refuge from inhospitable environments by mentally clocking out long before 5 P.M. Open floor plans and co-located staff foster interaction but also distraction, while cubicle partitions and enclosed offices foster isolation but also concentration. Green spaces—as simple as opened blinds or strategically placed indoor plants—are strongly correlated with decreased stress and improved physical and

mental health.<sup>12</sup> NCSU's library master plan highlights the need of library workers for "open and collaborative work environments that are driven not by hierarchy but rather by evolving functional groupings and their entrepreneurial culture" in order to better deliver exceptional user experiences and satisfy user needs in the context of a 21st-century university library.<sup>13</sup>

As NCSU notes, exceptional spaces facilitate productivity and engagement among staff. Employers with highly engaged workers, defined as "those who are involved in, enthusiastic about, and committed to their work," reported 21% higher productivity and 10% higher customer ratings than organizations with the least engaged workers. These employers also experienced significantly lower turnover, absenteeism, and quality control problems. Yet in 2013 a Gallup workplace survey discovered that 70% of workers across all industries in the United States either are not engaged or actively disengaged from their work.<sup>14</sup> Comparably, a 2007 *Library Journal* survey found that only 70% of academic and public librarians expressed satisfaction with their work situations. That percentage dipped to 61% for workers under age 30, amid frustrations over inadequate pay, red tape, and unresponsive management.<sup>15</sup> While satisfaction is not identical to engagement, administrators should not assume that newer librarians will persist in a field about which they are both passionate and dissatisfied. NCSU recognizes this. Its master plan singles out flexible, inviting staff spaces as vital to recruiting and retaining exceptional library staff.<sup>16</sup>

## Challenges

In contrast to private-sector models like Google or Facebook, libraries commonly operate on shoestring budgets and are departments of larger organizations, ranging from city and county governments to universities and school systems. Library needs often struggle to compete with athletics, public safety, and other spending priorities for these organizations. This makes it

challenging for libraries to absorb the costs of incentivizing employees or investing in spaces for innovation, which critics may see as “perks” for overcompensated public employees. Then too, innovation is simply not a priority for libraries that struggle to find the budget or personnel to accomplish even routine daily work. Additionally, skepticism toward the *Library Journal* Mover & Shaker Award is symptomatic of some librarians’ preference for so-called workhorses, whose focus is routine work within existing prescribed procedures, over disruptive innovators, though routine and innovation are not mutually exclusive and should coexist in most workplaces.<sup>17</sup> Finally, librarianship’s commendable emphasis on end user experience and customer service may contribute to the short-changing of staff when library administrators decide where to invest. Consequently, writes design consultant Elliot Felix, libraries “have created daylight, inspiring, and reconfigurable collaborative spaces for students while just down the hall staff work in dismal, disconnected cubicle farms that lack meeting spaces, technology, variety, and flexibility.”<sup>18</sup>

### Flexible Spaces

Another challenge to improving staff spaces is the fact that no consensus exists on what constitutes optimal innovation spaces. Most models emphasize collaboration—but sometimes, when diving into a spreadsheet, configuring a software program, or drafting a contract, workers need to concentrate rather than collaborate. Open floor plans are all the rage in the technology industry, but many workers, including the introverts who make up an estimated 63% of library workers, experience open offices as overwhelming and distracting.<sup>19</sup> Neurodiverse workers, e.g., with attention-deficit/hyperactivity disorder or on the autism spectrum, commonly struggle to concentrate and be creative amid ambient noise, visual stimulations, or other environmental distractions. Workers with diverse needs and tasks require equally varied workspaces.<sup>20</sup>

To accommodate these needs and optimize employee performance, libraries should permit use of noise-canceling headphones, designate close-doored or acoustically private offices for focused work or as “quiet spaces” for workers to rest or recharge their social batteries, and offer workers a range of spaces that should include enclosed offices or cubicles away from foot traffic. Some workplaces may wish to install white noise machines.<sup>21</sup> As author Susan Cain and Steelcase CEO Jim Keane concluded, “The key is choice.” Innovation is best fostered via a mix of spaces optimized for individual or collaborative work, flexible enough to accommodate either, and connected enough to facilitate collaborative and serendipitous interactions among staff.<sup>22</sup>

### Serendipitous Spaces

“The biggest driver of performance in complex industries like software,” claims human analytics researcher Ben Waber, “is serendipitous interaction”—not premeditated get-togethers but rather fortuitous interactions leading to idea exchange and opportunities for collaboration and innovation.<sup>23</sup> Insofar as libraries resemble the software industry, the argument is apt. The author once dropped by a colleague’s office to say hello; the conversation morphed into an electrifying conversation, involving whiteboard and spreadsheet activity, which could ultimately transform how end users accessed the library’s electronic resources. A University of Michigan study found that when researchers’ walking patterns overlapped—say, walking from the office to the restroom—collaborations jumped by up to 20% for every hundred feet of “zonal overlap.”<sup>24</sup> Google designs its spaces to maximize these serendipitous interactions. “We want it to be easy [for] Googlers to collaborate and bump into each other,” explained a Google spokesperson. Serendipity involved everything from installing indoor volleyball courts to arranging cafeteria



tables so that colleagues are more likely to physically bump into each other, triggering spontaneous interactions.<sup>25</sup>

No library is going to install indoor volleyball courts for staff. However, there are many inexpensive, low-key ways to foster serendipitous interaction. Common practice is to co-locate one department's staff in the same office space; this co-location promotes collaboration within that department. But more importantly, departments should not be isolated from one another on different floors with several flights of stairs between staff and serendipity. The previously cited University of Michigan study also found that collaborations increased 33% among researchers inhabiting the same building and 50% among researchers inhabiting the same floor.<sup>26</sup> As many staff as practicable should be co-located, with restrooms, elevators, kitchens, and other common spaces positioned to maximize serendipitous interaction. Common spaces should be improved with comfortable seating, indoor plants, art, and other pleasantries to encourage workers to feel comfortable and engaged in those spaces. Open offices similarly foster serendipity, but noise and other distractions associated with open offices can undercut productivity, and lack of privacy can feel uncomfortable. A more egalitarian approach is to give workers spatial choice and flexibility.

### Employee-Driven Spaces

Human-centered design generally posits workers as oppressed by inefficient structures. To the rescue of this “worker-as-victim” come the heroic information designers to create better systems and structures. But how much do workers need imposed structures in the first place? Individual workers inevitably “assert their own agency” by adapting and innovating systems and spaces on the fly.<sup>27</sup> Actual users of workspaces should lead or actively consult with any designs,

while organizations should design or renovate workspaces with the built-in flexibility to accommodate ad hoc changes. Library leadership should foster employee-driven spaces.

Satisfied, productive workers are typically those who exercise some degree of control and autonomy, or agency, over their work and space. Are workers permitted to customize their workspaces? Are they free to choose between a laptop and a desktop, Mac or PC, a standing desk or a sitting desk? Can they roam and work, locating themselves in the café or atrium rather than in their cubicles? Are workers empowered to work flextime or telecommute occasionally? Are there flex spaces—unclaimed offices or even a couch with nearby electrical outlets—to accommodate workers who wish to disrupt their routines to think more creatively? Are moveable whiteboards, projector carts, or poster easels provided in shared spaces to facilitate impromptu meetings, mapping, and brainstorming? Are teams free to shuffle chairs and tables into optimized seating arrangements? Are workspaces able to be made colorful or engaging to forestall ennui resulting from endless grey cubicle walls? Does library leadership care how or where employees work, as long as the work is done and done well? In short, do workers exercise agency over their spaces?

### Collaborative Spaces

Like employee-driven spaces, collaborative spaces are adaptable and driven by choice and spontaneity. Spaces for focused individual work should be created along with spaces for teamwork. “Like a great city,” wrote Felix, “space needs to transition from lively to quiet and be organized into ‘neighborhoods’.”<sup>28</sup> But most library spaces are configured for individual work—think of the cubicles or enclosed offices that predominate in the average library. Collaborative spaces are largely limited to staff meeting rooms. These rooms might contain a table and chairs

and a large computer monitor or projector screen. Libraries should reconceptualize these rooms as collaboration spaces, adding jacks so that more than one laptop can be connected, adding more than one computer monitor or touchscreen, and adding whiteboards or smartboards so staff can sketch or scrawl to visualize complex ideas and plans. Huddle rooms—small spaces for impromptu meetings and equipped with technology—are essential for teams. Some rooms even may be left without furniture to keep meetings short and effective by forcing workers to remain standing. Libraries should also equip collaborative spaces with tools for remote collaboration, such as Skype or Google Hangouts, or even hold meetings entirely in virtual spaces.

### Virtual Spaces

Video conferencing brings us to the next key point: virtual innovation spaces. Emails and traditional meetings are tremendous drains on productivity, while circular conversations and long-winded emails are mentally draining to boot. Emerging technologies such as Slack, Trello, and Asana not only streamline communication but also facilitate brainstorming, collaboration, and exchange of ideas. Slack is a cloud-based collaboration application that cuts down on emails and nonessential meetings through messaging, private or team-based, on “channels” or groups that users set up. Trello and Asana are team project management tools that go beyond the to-do list to facilitate collaboration and information sharing, again, without email. Other essential tools might include OneDrive or Google Drive, which enable document sharing and concurrent editing and tracking of changes, alongside secure team file sharing platforms like FileLocker or Box.

### Decluttered Spaces

Physical and virtual spaces alike are prone to disorganization and clutter. Every worker has witnessed inboxes cluttered with useless unread emails, and offices cluttered with useless documents. Granted, creative personalities may thrive amid cluttered desks and crowded shelves, and staff should have the autonomy to customize their personal spaces as they see fit. However, excessive stimuli have been shown to decrease focus by overloading the senses and making it difficult for people to prioritize and focus on tasks.<sup>29</sup> Every unread email or unsorted document represents a decision delayed or a task undone, every desktop notification is a distraction, and every search for a poorly named file is a waste of time. Results include frustration, anxiety, and reduced time and energy for leading innovation.<sup>30</sup> Equally problematic is intellectual clutter—the mundane bureaucratic tasks like updating documentation or entering data into spreadsheets. Such tasks may be necessary but are also time and energy sucks. Libraries should work to streamline processes and sweep away clutter to free up brainpower and time—and money—for innovation.

Decluttering can quite literally create space for innovation. The author once cleared out an disused office, organizing or discarding boxes upon boxes of superseded documents, making this cluttered storage space available to be made into a quiet space for creative thinking, e.g., writing contracts or code. With seating and a portable whiteboard, the room will be repurposable into a collaboration space or a private space for making phone calls. Another decluttering project was to standardize file-naming conventions and purge redundant or unneeded documents from virtual file storage. Consequently, team members will be able to locate needed materials immediately, saving time and frustration. Because of flexible spaces and organized data—easily restructured without a budget—workers are freed of mental clutter and can focus on innovating.

Safe Spaces

Flexible spaces should be psychologically safe spaces. “In the best teams,” Google researchers found, “members listen to one another and show sensitivity to feelings and needs.”<sup>31</sup> First and foremost, participants in innovation spaces must welcome one another regardless of other participants’ race or ethnicity, sex, gender identity, or other traits and must ensure that all participants feel comfortable partaking in the conversations happening in those spaces. Second, leaders and team members alike must encourage honest, energetic, sensitive discussions and facilitate conversations to avoid disagreements turning personal. All participants in an innovation space should share ideas, and the group should consider those ideas thoughtfully and respectfully on their merits—and even if those ideas are found to be without merit, the fact that alternatives were proposed and entertained is symptomatic of a healthy organization open to disruption. If team members feel too psychologically unsafe to articulate “radical or risky ideas” or challenge others’ ideas, then teams will not perform as effectively and innovation is doomed to falter.<sup>32</sup>

Besides fostering psychologically safe collaborative environments, innovation spaces should support physically safe and healthy ergonomics that promote the well being of workers. While plushy chairs and couches in collaboration rooms are pleasant to have, ergonomics are vital to reducing muscular disorders, nervous strain, and resultant absenteeism while bolstering productivity and morale. Employers should provide readily customizable individual workstations and encourage workers to be proactive in evaluating and improving their individual and shared workspaces. Again, flexibility and choice are key. Standing desks, adjustable seating, softer lighting, ergonomically sound workstations with keyboards and mice positioned level with the elbows, and computer monitors positioned slightly below eye level to reduce neck strain—these are not mere perks. They foster productivity and support physical health and well-being, which in turn are strongly correlated with professional engagement and productivity.<sup>33</sup>

## Innovation Cultures

Of course, innovation spaces alone are insufficient to sustain engagement and innovation. Building intrapreneurial cultures is vital. Library leaders should tolerate risk, encourage creative thinking and change leadership by frontline staff, foster teamwork, and ensure that library-wide planning and resources align with areas of necessary innovation.<sup>34</sup> Library administrators are responsible for defining clear performance standards and holding individuals accountable for workmanship while fostering a sense of play—good humor, camaraderie, and imagination—in terms of ideas and projects.<sup>35</sup> Creating innovation cultures forestalls the risk of innovation spaces being ineffective or misused, e.g., the risk of serendipitous spaces becoming opportunities for counterproductive chitchat and idleness. Libraries should recruit or allocate staff on the basis of entrepreneurial spirit and how they can support innovation in the organization as a whole, not strictly in the specialized positions they were hired to fill. The key takeaway for this section is that libraries should prioritize internal customer service: “the idea that the whole organization must serve those who serve.”<sup>36</sup> Spaces are only one of many steps to foster innovation.

## Conclusions

Innovation spaces for workers are an essential but often overlooked element of fostering intrapreneurial cultures in libraries and other organizations. For libraries of all types to survive and thrive, library leaders at all levels should prioritize creating or reconditioning work spaces to foster serendipity and collaboration, eliminate clutter, empower employees to adapt spaces to suit their needs and preferences, and ensure that all participants feel safe to express radical ideas and engage in vigorous discussions, while recognizing that not all workers are or need to be cutting-

edge intrapreneurs. The locations of innovation spaces may be in library buildings or in virtual environments made possible by cloud-based wikis, communication and project management platforms, and other software that enable interactive virtual spaces. Equally, libraries should reasonably accommodate diverse needs and working styles and provide spaces for focused individual work as well as collaboration. Such spaces drive staff engagement and satisfaction and ultimately benefit end users without requiring massive infrastructure investments by libraries.

So, what can librarians do to make innovation spaces happen? Google, Steelcase, and other private-sector organizations provide models for successful and nuanced use of innovation spaces in the workplace, while libraries like NCSU have successfully adapted the tech industry's examples. Design consultants can analyze existing library spaces and staff and create blueprints for redesign, in which library administrators can then invest. The point, however, is that library leaders at all levels can contribute to enhancing spaces. Any library worker can name files, shift furniture, or start conversations. Administrative funding and mandates for creating innovation spaces are vital, but the goal should be to foster innovations led by the workers themselves.

## Endnotes

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