Peer reference and the out-of-the-building experience

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Abstract

Purpose – This article conceptualizes essential keys to the future of peer reference in academic libraries as extrapolated through the dual lenses of academic library history in the United States of America and recent experiences of a peer program with prospective and actual out-of-the-building experiences.

Design/methodology/approach – A 30,000-foot historical view of the dispositions of space in academic library buildings, collections, spaces, technology and reference provision is integrated with a description of the responses and insights of a peer reference program during the program's prospective and actual out-of-the-building experiences. These components are then analyzed to extrapolate keys to peer reference provision in any learning environment.

Findings – Peer reference is a natural extension of the Learning Commons model as developed in many academic libraries. To find optimal success in leveraging the benefits of peer-to-peer learning, program coordinators should keep in mind the social aspects of peer learning and intentionally articulate a framework for service delivery that best matches the modalities of providers, patrons and the information environment. In reviewing training and service practices, coordinators should be particularly on guard for any bias due to traditional reliance on the affordances of a library building and/or physical service point.

Originality/value – This article founds its conclusions in regard to the future of peer reference by contextualizing the evolution and future of such programs in the wider historical context of academic library dispositions of space in support of learning. It proposes a conceptual framework for intentionally matching the modalities of providers, patrons and the information environment.

Keywords Academic libraries, Learning organizations, Reference services, History, Virtual libraries, Peer reference

Paper type Research paper

Introduction

The Robert E. Kennedy Library at California Polytechnic State University, San Luis Obispo was uniquely positioned to respond to the closing of its physical premises with the advent of coronavirus disease 2019 (COVID-19). A renovation feasibility study concluded in July 2018 had forecast a complete library closure within three years, and by 2020, the librarians responsible for the peer research assistants were well along in preparing for delivery of peer reference and instruction in the absence of a physical library building. This article explores what we gradually learned from prospective and actual out-of-the-building experiences, applicable not merely in the context of these closure scenarios, but more broadly informing how academic libraries should deliver peer services now and into the future. What slowly emerged from our experiences was a conceptual framework for carefully articulating and strategically matching the modalities of our providers, our patrons and information resources. Key modalities to consider include chronological (synchronous/asynchronous/hybrid), locational (in-person/online), numeric (one-to-one/one-to-many), platform (desk/chat/Zoom/group text) and information need. An approach that has proven particularly useful for parsing and matching these modalities is connectivism – an educational construct first proposed in 2004 by George Siemens that foregrounds the role of digital technologies but integrates principles found in “chaos, network, and complexity and self-organization theories” (Siemens, 2005, p. 5).

To set the stage for peer reference, the article begins with a 30,000-foot historical view of academic libraries and their dispositions of space – specifically in regard to collections, user spaces, technologies and reference provision. This rapid assay of shifting modalities
accurately situates the timely and pedagogically appropriate appearance of peer reference. The 30,000-foot view is then supplemented by a brief dive beneath such merely descriptive narratives to foreground the underlying nexus of learning, knowing, technology and change, so key to the activity of academic libraries, and a needfully kept in mind when strategizing service provisions. The article then explores Robert E. Kennedy Library’s peer reference program – first seen through the lens of the 30,000-foot historical view and then through its responses to prospective and actual building closures. Refocused on the broad foundational principles that optimal peer learning is above all social learning and that such learning can happen anywhere, the article proposes the need to vigilantly re-evaluate and devise strategies for providing peer reference services in modalities and loci that allows student providers’ knowledge and skills to be leveraged for optimal learning.

A 30,000-foot view of academic libraries in the United States of America
Constructive thinking about the future of peer reference and its modalities in academic libraries can benefit greatly from a reflection on its origins. One way to reveal those origins is to briefly review the history of academic library buildings. To that end, a chronological series of flyovers of the United States of America proves instructive. If, for instance, the Wright brothers could have been enlisted in 1905, one would have gazed down on campuses with mostly small- to-moderate-sized library buildings (Kaser, 1997). A hitched ride on a B-17 Flying Fortress in 1945 would have revealed a wondrous, three-decade spread of massive new academic library buildings. Peeling back the roofs of these giant buildings, one would have seen traces of the engineering that made these fixed-form structures possible: large reading rooms for users strictly separated from rigid, multi-tier stack cores built to support the weight of huge print collections (Kaser, 1997). This roofless plan view clearly exposes how academic libraries in the United States of America had been designed “first and foremost as places to collect, access, and preserve print collections” (Freeman, 2005, p. 1). In these fixed-form structures, librarians and staff acted as intermediaries between the patrons and the collections (Kaser, 1997). Interestingly, the 1945 flyover would have revealed limited instances of patrons in the stacks, as some academic libraries were then opening print collections to patrons without librarian mediation (Kaser, 1997). Beyond this, however, the rigid designs admitted little flexibility in the repurposing of space (Kaser, 1997). Post-war structural solutions soon allowed the introduction of equally large but flexible “modular” buildings. These were basically large rectangles “where books and reader spaces could be intermixed” (Kaser, 1997, p. 115). Many campuses invested in these buildings during the post-war explosion of budgets and student enrollments, and by 1965, the modular design had become “the dominant central pattern for new library buildings” (Orne, 1976, p. 325).

Despite great functional success, these large rectangular buildings were soon critiqued for their dearth of visual interest. In response, the next generation of gigantic library buildings bore features attempting to “disguise the box” (Kaser, 1997, p. 131). A hitched ride with Apollo 7 in 1968 would have yielded views of newer buildings with irregular shapes, decks, interior atriums and wells. The trend was rampant and catching a ride in the 1980s on the space shuttle we might have been hard pressed to find any new building “without a hole in the middle” (Kaser, 1997, p. 140).

Though such features invariably raised costs and often impeded functionality, the underlying modular structure still allowed for flexible use. This mutability permitted a great number of functional interior changes over the ensuing decades. Looking with one eye from our 1980s’ space shuttle liftoffs, we would have seen voracious print collections increasingly consuming square footage and user spaces, with users struggling to navigate the increasingly illogical and involuted remainder (Barnett, 1959); clear signs that print collections were still the primary consideration in library space planning (Oliveira, 2018). However, looking through our
other eye, we would have noticed something quite new and portentous: patrons grappling with computer terminals rather than card catalogs. This second eye, of course, had the best vista of the future.

Rides on 1990s’ space shuttle trips would have revealed plan views of libraries with bustling cafes and patrons seated on comfortable furniture elsewhere in the library – both clear indicators of the “library as place” movement (Spencer, 2006, p. 244). No longer reserved for solitary study or merely meeting information needs through access to print collections, library spaces were opened for socializing, eating and drinking and even having fun (Demas, 2005).

Specific flights in 1992 and 1994 would also have revealed births of the first Information Commons (Oliveira, 2018, p. 61). These first Information Commons were physical in nature – dedicated spaces with technology and associated help, designed to support its true substrate: the digital, online, information commons of electronic resources and tools characterized by some as the “virtual” commons (Beagle, 1999, p. 82). Embodying the shift in library collections from print to the digital environment, this movement swept through academic libraries in the late 1990s and the early 2000s (Beagle, 1999, p. 82; Steiner and Holley, 2009, p. 313). Peering inside libraries, we would have seen these early Information Commons as well-defined locations outfitted with computers and often with an affiliated, computer-equipped classroom (Bazillion and Braun, 2001). Learners in these spaces were empowered by collocated access to technology, productivity software and a combination of technical and research help (Steiner and Holley, 2009). This movement swept through academic libraries in the late 1990s and the early 2000s, embodying the shift in library collections from print to the digital environment (Beagle, 1999, p. 82; Steiner and Holley, 2009, p. 313). The Information Commons emerged in response to two fundamental changes, namely the revolution in information technology (including the housing, distribution and retrieval of information) and the shift in higher education toward active learning practices and greater recognition of the social dimensions of learning and knowledge (Bennett, 2005, pp. 10–11; Bennett, 2003, p. 3). The early Information Commons model, however, was seen by as limited by not going far enough and by its traditional emphasis on “information seeking” rather than on learning (Roberts, 2007, p. 805; Beagle, 2002).

Enter, then, the Learning Commons. Rather than relying on the traditional view of libraries as “service places where information is held, organized and managed,” the deployment of the Learnings Commons model sprang “from a recognition of the essential social dimension of knowledge and learning” and conceived “of libraries as spaces where learning is the primary activity” and “the focus is on facilitating the social exchanges through which information is transformed into the knowledge of some person or group of persons” (Bennett, 2003, p. 4). Conceived pedagogically on constructivist learning principles, the Learning Commons was an extension and progression of the Information Commons with a much broader purview than mere information discovery (Oliveira, 2018, p. 64; Beagle, 2002). Learning Commons often involved conscious alignment with institutional aims and collaboration with students, faculty and campus stakeholders (Somerville and Brar, 2010).

In some cases, the progression from Information Commons to Learning Commons seemed natural because the technical infrastructure of the Information Commons was already in place (Roberts, 2007, p. 805). However, Learning Commons were not conceived of as discrete locations or as strictly tethered to technology, but rather a physical design emphasis was placed on creating informal and formal spaces for collaboration, socializing and intellectual engagement (Somerville and Brar, 2010). Such commons were no longer relegated to a single space or floor but spread like tentacles throughout libraries (Somerville and Harlan, 2008). As libraries became less book centric, print collections ceded increasingly more square footage to user spaces. As computer expertise became more pervasive, architects and librarians recognized the expansion of learning to informal and even unbounded learning spaces (Chism, 2005; Somerville and Harlan, 2008). In such a world, every space is “potentially a library space – that is, an information rich space” (Bennett, 2009, p. 188) and whether it has a building or not, the
academic library can be “characterized as a local hub on a global information network” (Bazillion and Braun, 2001, p. 13).

From the first Wright brothers’ flight to the 1980s’ space shuttle trips, our roofless plan views revealed expanding library buildings and expanding print collections. For many years, patrons were physically separated from collections, but even as stacks were opened, librarians and staff served as knowledgeable intermediaries between users and information in an environment that many users found mysterious and arcane (Barnett, 1959; Gremmels, 2015; Ross and Sennyey, 2008). The primary modality for patrons was in person, the primary modality for the providers was in person and the primary modality for the information was paper (Buckland, 1992).

The large, modular buildings of the post-war era, however, allowed for a thorough internal transformation starting in the 1990s. As collections and information moved online to pervasively available technologies, i.e. onto a digital environment and modality with personal devices, users found themselves in an increasingly more familiar environment, one that became far less arcane the more they were immersed in it (Beagle, 2010). The Information and Learning Commons approach moved to support learning and knowledge creation in this shared digital environment through online support and by reducing the print collection, repurposing the space gained to create technologically inflected learning spaces.

Here, then, is the ideal environment for implementing peer-to-peer learning in academic libraries, a practice which itself is firmly grounded in the constructivist learning principles of Vygotsky, Piaget and Ehly and Topping (Bodemer, 2014; O’Kelly et al., 2015; Rinto et al., 2017). The students share the digital learning and information environment (Beagle, 2010) and can provide an information support system that blurs the lines between basic research questions, software questions and directional information (Spencer, 2006). If our peer providers are in the building, they share the physical learning environment as well and can help in the use of print collections, but of course they share a range of informal learning spaces beyond the library, in the campus or community (Spencer, 2006; Chism, 2005) and opportunities for peer learning can be unbounded. It is through identifying these opportunities and broaching them in the appropriate modalities that we can give our peer providers the best chance to provide optimal value to other students.

A quick dive below the surface: technology, pedagogy and change
Before advancing to a specific discussion of the peer reference program at the Robert E. Kennedy Library and the emerging framework for matching modalities developed from its out-of-the-building experiences, I will take a few moments to deepen the foregoing 30,000-foot view. The metaphor of viewing chronological change in academic libraries from the vantage point of evolving biplanes, bombers and space shuttles was not chosen simply for entertainment value. On the contrary, it was chosen to background the salience of the interrelationships between technology, pedagogy and change. It is now time to bring that background to the foreground.

It is not, after all, as if similar narratives did not already exist. Scott Bennett, for example, in “Libraries and Learning: A History of Paradigm Change,” outlines a parallel chronology and a sequence of three library-design paradigms: reader-centered, book-centered and learning-centered (Bennett, 2009). Bennett posits these paradigms as responses to changes in both technologies and pedagogies, resulting in a sequence that reflects “the transformation of information from a scarce to a superabundant commodity” (Bennett, 2009, p. 182). Yet, as with my 30,000-foot view, Bennett’s narrative remains merely descriptive. Surprisingly, in an article that leans rhetorically on Thomas Kuhn’s thesis of paradigm shifts, there is neither mention of Kuhn nor any analysis of the change process. Similarly, if I were to leave off now, my 30,000-foot view would merely remain a series of entertaining snapshots framing a literature review.
Missing in both narratives is an overt attempt to reckon with the complex interrelationships of technology, pedagogy and change or to grapple with the particular importance of this nexus in the context of academic libraries. Perhaps because we are so immersed in it, the nexus is easy to overlook, even as we engage very conscientiously in our work. It may be that this habituation allows us to unreflectively recount tales of technologies, pedagogies and corresponding building changes, without thinking more largely of technology, pedagogy or change.

Or in an even less generous view, one might cast these descriptive narratives as productions that primarily provide psychological and professional comfort. In his essay, “The Burden of History,” the philosopher of history Hayden White puts this quite bluntly, writing, “We choose our past in the same way that we choose our future. The historical past, therefore, is, like our various personal pasts, at best a myth, justifying our gamble on a specific future, and at worst a lie, a retrospective rationalization of what we have in fact become through our choices” (White, 1966, p. 123). In a later essay, “The Value of Narrativity in the Representation of Reality,” White traces the value of such representations to “a desire to have real events display the coherence, integrity, fullness, and closure of an image of life that is and can only be imaginary” (White, 1980, p. 24). And just as Kuhn viewed practicing scientists as less than ideally situated to produce histories of science (Kuhn, 1971, p. 276), we might question the suitability of academic librarians to produce histories of academic libraries.

One can begrudgingly accept these claims and doubts and still propose a more positive way to dive beneath the simple narratives. Even if this lands us in an equally dubious meta-narrative, it provides at least three benefits by expanding our scope, freeing us from particulars and inducing greater self-awareness. In his essay, “On the Question Concerning Technology,” the philosopher Martin Heidegger bluntly declares that there is “nothing technological about technology” (Heidegger, 2008, p. 311). Thinking beyond mere technologies, Heidegger posits technē and epistēmē as terms of “knowing in the widest sense” and characterizes both as forms of “revealing” (Heidegger, 2008, p. 318). Knowing, learning and pedagogy are of course intertwined and mutually implicated in change. This was all quite latent in the academic library narratives but was never made patent.

Govindan Parayil – a researcher in the field of science, technology and society studies offers a particularly relevant way for us to think of all this. He conceives technological change as knowledge change, which is “both socially constructed and political-economic in nature” (Parayil, 1999, p. 173). “The development of technological artifacts and the whole process of technological change are embedded within societal, economic, and political considerations. In the social construction of technological change, technological artifacts, society, politics, and economics become a ‘seamless web’ of actors that are brought together to solve human needs and problems” (Parayil, 1999, p. 173). “Ideas,” he writes, “form the core of technology . . . and the epistemic significance of technological knowledge stems from its clear dependence and interfacing with society and culture” (Parayil, 1999, p. 172). As technological change develops, the affordances become available in varying degree to the society at large. This of course includes academic libraries. According to its availability, the use of technology then becomes part of the structure of learning and knowing. This is true whether it is a baked clay tablet, a codex or a digital platform for geospatial mapping. To an important extent, then Heidegger is not overstating the case when he declares, “Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it” (Heidegger, 2008, p. 311).

So what is a productive way to proceed pedagogically and to inform our service provisions, once we deliberately acknowledge that learning, knowing and change are entwined, regardless of the distinct forms taken by particular technologies, pedagogies and changes? Once we admit that we are both moving the needle and the needle moving, what might we do? In the 30,000-foot view, we saw increasing reliance on constructivist and social learning principles. These principles are broadly applicable in many learning situations and environments and are by no means precluded from applications in digital information
technologies. A complementary approach, with relevant practical applications, is connectivism – first proposed by George Siemens in the early 2000s. Its greatest value in our context is the way it simultaneously foregrounds both patterns of knowledge sharing and the express consideration of digital technologies.

A key principle of connectivism is that “learning is a process of connecting specialized nodes or information sources” (Siemens, 2005, p. 5). The starting point is the individual, whose personal knowledge “is comprised of a network, which feeds into organizations and institutions, which in turn feed back into the network, and then continue to provide learning to the individual” (Siemens, 2005, p. 6). Such learning is viewed as “a process that occurs within nebulous environments of shifting core elements – not entirely under the control of the individual” (Siemens, 2005, p. 5). Moreover, learning, defined as actionable knowledge, “can reside outside of ourselves (within an organization or database), is focused on connecting specialized information sets, and the connections that enable us to learn more are more important than our current state of knowing” (Siemens, 2005, p. 5). In a digital age, Siemens argues that it is crucial to include “technology and connection-making as learning activities” (Siemens, 2005, p. 4). Among other considerations, connectivism provides a theoretical framework for foregrounding connection pathways in learning as well as the importance of digital technology in enabling those connections (Dunaway, 2011, p. 677). Though it has been questioned whether Siemens’ proposed connectivism amounts to a comprehensive learning theory with the strength of such established learning theories as behaviorism, cognitivism and constructivism (Kop and Hill, 2008; Clarà and Barberà, 2014; Goldie, 2016; Downes, 2019), it is nonetheless a very useful corrective in an academic library context. Its primary focus is the nature of connections and knowledge sharing; and relatedly, but also paradoxically, its explicit emphasis on thinking clearly about digital technologies serves through awareness to countervail the latent blindness induced by our habituation to familiar technologies. As we will see in the final portion of this paper, connectivism aligns well with the evolving framework for matching modalities that we developed because of our out-of-the-building experiences.

Peer reference at the Robert E. Kennedy Library

The road to peer reference at the Robert E. Kennedy Library can be characterized as an exact recapitulation of our 30,000-foot view. The 1970s-designed Kennedy Library building is a five-story brutalist Ziggurat with a giant outdoor atrium at its center and vertiginous grand stairway leading straight up from the second to the fifth floor. At 208,000 square feet, it is 5.5 times larger than its 1948 standalone precursor, and the only campus structures to currently exceed its square footage are all parking garages (White, 2022; California Polytechnic State University, 1940–1949). This gargantuan building ably performed its collections-based task of housing expanding print holdings for over 20 years, but in 2003, mirroring our 30,000-foot view of changes in technology and pedagogy, the campus began exploring the creation of an Information Commons (Somerville and Brar, 2009). Multiple campus bodies including the library collaborated on a design that was subsequently approved. The facility concept was to provide enabling technology infrastructure, while its complementary service concept was “to encourage the application of constructivist principles to advance students’ information, communication, and technology proficiencies and thereby cultivate transferable lifelong learning capabilities” (Somerville and Brar, 2010, p. 181). Opened in 2004, the Information Commons at first included a service desk near a number of computer labs (Somerville and Brar, 2010).

In 2008, the Information Commons morphed physically and conceptually into a Learning Commons. Designed to promote collaborative and socially productive learning spaces, the Learning Commons entailed removing print collections from the second floor,
erecting collaborative study rooms, creating a gallery space and installing a café (Somerville and Brar, 2010). Over the ensuing decade (2008–2018) the Learning Commons ethos spread palpably throughout the building, clearing print collections in its path, providing increased computing capacity, software support, study spaces and collaboration rooms. One of its principles was to nurture “unbounded” learning, which might take place in any campus space, including building hallways, plazas and food service areas (Somerville and Harlan, 2008, pp. 17–18). In fact, the original operational design of the peer reference program in 2009 was a further extension of this ethos of ubiquitous learning. Our Library Research Assistance Technicians (LibRATs) were first deployed not in the library but in the residence halls – armed with laptops. In other words, the program operationally launched as an out-of-the-building means to provide reference. At a conceptual level, the LibRAT program was firmly premised on constructivist learning principles, and particularly on leveraging the social and learning benefits accruing to Vygotzky’s theorized “zone of proximal learning”, in which people learn best from status equals close to their own level (Rinto et al., 2017, pp. 2–3; Bodemer, 2014, p. 2).

Fortunately, the program’s conceptual basis was far stronger than its initial operational design. For as it turned out, the deployment of the first cohort in the residence halls was based on an erroneous assumption that students would find it natural to pose “library” questions in such non-library satellite locations (Bodemer, 2017). In two-quarters, the residents posed a scant handful of such questions. In hindsight, this can be viewed as an instance of failing to correctly match modalities: sure, we had our peer providers physically present in residence halls, where students lived and did engage in studying, but nonetheless a clear disjunction existed between 99% of the residents’ activities and what the library offered there. Missing, in a sense, was a third modality – the modality of need. Our peer providers in that location were, simply put, irrelevant.

Though we trained the first cohort on the assumption that they would need to know basic operational information, training was focused more substantially on database searching and the winding pathways of getting to full text: using all the available technological tools for resources that comprised the “digital” information commons that existed independently of the library building. Because of this intense training in the use of online resources, during the second pilot quarter – though still stationed in the residence halls – we set them to providing online chat so they could rehearse their skills and make use of their training. Chat transcripts showed that they were quite adept at providing answers via chat while simultaneously communicating their peer voice to those they helped. Here was an instance of well-matched modalities – providers online, patrons online and, in most cases, resources and solutions available online.

Recognizing the futility of posting the LibRATs in the residence halls, we brought them into the Kennedy Library building, relocating them at the Research Help Desk toward the back of the first floor. Initially the LibRATs provided extended desk and chat hours, but by fall 2011 they provided most regular desk hours in addition to extended weekend and evening hours. From the dual standpoints of visibility and patron activity, the location of the Research Help Desk on the first floor was highly flawed: at the far rear of the building, it was nestled near two large and low-use print collections: current periodicals and reference. Its situation and purpose were a vestigial emblem of the print-based library. In spring 2016, the Research Help Desk migrated to the second floor, assuming the service point that had been launched as the original “tech service” desk for the Learning Commons. In this highly visible and bustling location on the second floor, within sight lines of the café and restrooms, in-person desk transactions of all varieties dramatically increased. This location also positioned the Research Help Desk just outside the interactive classroom used for our Information Literacy sessions, many of which were led by our LibRATs. Physically linking peer instruction and reference, a session leader now only had to point out the window to show where patrons
might get help if needed. By fall of 2019, peer providers covered all desk and local chat hours, with double-coverage during peak hours. Peer reference in its various modalities had reached its optimum: patrons in no short supply could approach the desk with questions about printing, software, scanners, directions or even physical tools such as a paper clip, as well as any research-based question; while patrons online, regardless of location, could pose inquiries of any sort, though, more often than not, the latter questions directly involved the use of online resources. This combined physical and virtual provision of peer service seemed like the ideal fulfillment of the Learning Commons model.

**The out-of-the-building experience**

In 2017 the campus began planning for a major library renovation. The project was expected to require an extended building closure that might start in as little as three years. Those charged with responsibility for our peer reference and instruction program provided input to the design team that explicitly advocated for a post-renovation deployment like our 2017 affordances: the re-creation of a highly visible service point in a space where students were engaged in manifold activities and in close proximity to our dedicated instructional space. This would allow us to continue providing optimal service to our in-person patrons as well as those posing queries via online chat.

The looming renovation also inspired planning and proactive steps toward providing reference and instruction during the projected closure. By late 2019, a conceptual model for synchronous online instruction was in the works. LibRATs were already collaborating on enrichments to asynchronous online tutorials. The interim plan for reference included a strong reliance on promoting and delivering online chat but also envisioned a complementary in-person service in a provisional “mini-library” space somewhere on campus. In our mind’s eye, we envisioned significant technology and study space for at least some of the student body in that mini-library and our own appropriate adjacency to a circulation service point where we might provide reference.

As it turned out, the anticipated renovation closure was preempted by the pandemic shutdown. Because we were already preparing for providing service during an anticipated out-of-the-building experience and, to a lesser extent, because our peer reference program had initially been launched as an out-of-the-building experience, we were at least two steps ahead in responding to the 2020 closure. Regarding reference, we knew our LibRATs required minimal monitoring for shift coverage, and a group text tool they already used when stuck for an answer could be relied upon in our dispersed situation. For instructional delivery, we pivoted from our in-person one-session to one-section model to offering fewer but strategically distributed sessions via Zoom, open simultaneously to students in multiple sections. After all, Zoom has no room capacity.

Though we responded effectively in the moment, it would be a mistake to understate the difference between a planned building closure and the total closure precipitated by COVID-19. In a typology presented earlier, the total closure placed us solely in the framework of a “virtual commons” – i.e. an online, all-digital, commons. This online commons housed all information resources and provided all channels of interaction with our patrons. Not only that but the channels of interaction within our team were entirely online. One long-term epiphany from this total closure – no print, no interlibrary loan, no in-the-building computer infrastructure for patrons, and no in-person communication with our team – was the eventual realization that even with all those losses, the absolutely essential remained: our capacity and ability to work together to help patrons access and use information in a given environment. This liberating yet guilt-tinged realization raised dark questions about the long-unquestioned habit of identifying library services as insolubly bound to locations in special buildings.
Nothing like this higher recognition was on our minds, of course, even though some of our immediate responses obviously consisted of replacing key elements of the physical “desk” with digital equivalents. We created a private online chat support guide to host critical links and digital surrogates for the printed documentation at the physical Research Help Desk. The top of the landing page provided alerts and updates and additional pages were added to host on-the-fly training videos necessitated by the volatile information environment. In the total absence of patron access to print materials, these videos focused on online resources that could help our peer providers supply that gap. We created a Google Form as a “virtual time clock” to establish an express layer of accountability for responsible shift coverage. And since it was no longer possible to simply walk out to the desk and share information, for such time-of-need communication we relied on a combination of group text, individual text messaging and calls to personal phones. Whenever a peer provider needed nuanced help, it was just a quick step to sign into chat, view the active transcript and text internally with the provider.

All these adjustments were implemented quickly to address immediate points of need. Later, when the initial flood of questions had ebbed and now faced with an indeterminate end to the pandemic closure, we were able to step back and consider deeper issues. We wondered how we might augment our operational responses in ways that would nurture the most important features and outcomes of a peer reference program. In the absence of physical proximity, how could we enrich our shared sense of community and purpose? How could we foster authentic mutual learning? How could we complete the social and skills onboarding of our newest peer providers, who had only briefly shadowed at the desk? How could we ensure that the students’ voices as peer providers might be heard in reference and instruction? And how, if the pandemic closure were to last more than a year, would we train new hires? The physical desk, which had long served as the social site of mutual learning and a place to foster many of these important components, had been taken out of the equation. How would we make up this loss?

We improvised several solutions that we hoped might sustain these important social and skills-based components. We created brief Zoom videos and associated quizzes which then were assigned to all the peer providers. Capitalizing on the symbiosis of instruction and reference we devised a “double-win” activity that maintained providers’ competence and simultaneously let their voices as peers be heard – using a newly created email alias, the peer providers followed up on questions students submitted online during instructional sessions. When our hiring cycle arrived in January 2021, it proved rare for two reasons: first, because all interviewing and training had to be conducted online and second, because we had only a single vacancy. Though it seemed less than ideal compared to our usual “in-the-building” process, it in fact proved to be a great learning opportunity. The first-year student we hired had never even set foot in the library, and again, because of the online nature of the information environment, the training primarily focused on online access to online resources. In an effort to authentically leverage peer learning and foster social cohesion, for two hours each week we paired the new hire with a single seasoned LibRAT – informally dubbing the pair as LibRAT Buddies. We assigned specific learning tasks and deliverables, which had the added benefit of reinforcing the initial skill set of the seasoned LibRAT. Rather than the traditional five in-person training sessions with an entire new cohort and the coordinator, the coordinator conducted ten weekly one-on-one sessions via Zoom.

**Back in the building but soon to be out again**
Our COVID-19 out-of-the library experience ended after 18 months. Though not yet consciously articulating our library re-opening efforts as a matter of best matching the modality of our
services to the given modality of our patrons and the modality of the information resources, at an unconscious level that is exactly what we did. At the start of the new academic year, we faced the prospect of two cohorts of students who had never set foot in the library. Even in a typical year, the library is deluged with queries at the start of fall. Yet, years of question-tracking had long ago informed us that for the first weeks these are less research-based questions than operational ones focused on printing, study-spaces and required textbooks. So one week before fall classes started, we set up a tent in front of the library and armed our LibRATs with fliers, swag and laptops. This pop-up tent reduced pressure on the circulation desk just inside the main entrance and provided us a chance to answer questions of all varieties. We staffed this service point for two weeks, retreating to the second-floor desk once questions outside had dwindled.

When we returned to the Research Help Desk, we found ourselves in a strangely superfluous environment. What was all this paper documentation? Who really needed it, when the online, hyperlinked iteration was superior – not to mention available to our providers anywhere? We had ably fielded most citation questions during our time away without recourse to the print copies of APA, MLA and Turabian style guides. In addition to the desk itself, all we really needed were chairs and two computer workstations, fully loaded with our strategic bookmarks, which were soon updated to include our “online chat support guide” but now more broadly purposed for all reference.

Our nearby instructional space was dark and desolate. Few faculty members wished to bring their classes to the library in the lingering shadow of COVID-19. Nor did we wish to unnecessarily expose our LibRATs, so we adhered to our out-of-the-building instructional model, offering strategically distributed online sessions via Zoom that were open to multiple sections of the English and Communications courses. While this had proved viable during the campus closure, when all classes were online and many were asynchronous, it failed miserably in the return-to-campus environment, with approximately 80% of classes delivered synchronous/in-person, and others offered in synchronous/online or asynchronous/online modalities. What we were experiencing was a mismatch between our chosen modality and the modality of our patrons. When we and everyone else were all online and many students enrolled in asynchronous courses, our modalities were well matched. Now, however, students in synchronous classes often lacked the scheduling flexibility needed to attend offered session times. Moreover, if students were on campus and between classes, they had the added challenge of finding a viable place to join on Zoom. Attendance dipped dramatically. As we planned for winter quarter, we intended to amend this mismatch by returning to in-person instruction for individual in-person sections and offer an additional scattering of online sessions offered to multiple online sections.

The holiday-fueled omicron variant quickly quashed that plan. And it was not our only holiday gift. Just before the break, renovation planning was again laid out before us, unwrapped with a potential move-out date less than a year away. It was only at this point, when confronted with continuous COVID-19 uncertainties and the revived prospect of renovation closure, and in attempting to logically sort out how to proceed, that we were finally able to articulate the key issues: one had to intentionally match modalities and not just for the short-term but for possibly two to three years. Instruction appeared to be the toughest nut to crack, but we began implementing a plan that seemed viable according to such considerations. For synchronous instructional sections (whether in-person or online) we forged a model that took advantage of Zoom but also of our traditional in-person one-session to one-section model. In this merged model, the instructional faculty required their students to attend during their usual class time but from home or other location of their choice. In this iteration, first tested in spring 2022, attendance rose, though reaching nowhere near pre-pandemic levels. To provide for asynchronous
courses, we enriched our online tutorials that teaching faculty could administer without our direct participation.

Faced once more with an impending renovation closure, we found our thinking for interim provision of services to be much different than before. Whereas prior to the pandemic we had envisioned providing some interim reference coverage collocated with circulation in an ersatz “mini-library” space, we now proposed simply providing all our services online. All we would really need on campus would be a small, quiet space from which our students could walk in and Zoom to a class or a place where they could situate themselves to provide chat. This online-only plan became even more cogent when we learned that the proposed interim space was to be a century-old gym outfitted with 40 low staff cubicles below a high-raftered, echoey ceiling. Worse yet, the repurposed gym included no allocation of space or technology for the student body. There would certainly be no point in setting up shop in an obscure, acoustically challenged location where patrons would only come when driven by very specific purposes such as picking up requested materials. Expending our energies there would be a mismatch of modality like our initial posting of LibRATs in the residence halls. In fact, in the absence of suitable student spaces in such a location, the responsible path will be to ensure that students can get help anywhere, anytime, via our online chat.

**Applying connectivism to an emerging framework for matching modalities**

The pandemic closure and loss of access to the library building and our desk proved a boon in many ways. Through intentionality, reflection and analysis, what might have been mere disruption turned into opportunities for innovation. The rapid sequence of total closure, re-opening and resumption of pre-renovation planning forced us to examine our traditional patterns not simply for providing services, but for training and team communication as well. In hindsight, for instance, our traditional reliance on the desk as a site for learning—in-person training in groups and even on the building itself—can be construed as little more than complacency. As made clear in preceding sections, we moved as through a glass darkly toward a meaningful framework for decision-making. Having learned, however, from this experience, that we can be entirely free of the building and still provide excellent service, our finely tuned question, even when we return to the renovated building must be: in each scenario for service, training or internal communication, how can we best match the modalities of the patrons, the providers and the information environment?

Our evolving framework is yet loosely structured but includes chronological modalities (synchronous/asynchronous), locational modalities (in-person/online), numeric modalities (one to one/one to many) and platform modalities (desk/chat/zoom/group text, etc.). The most critical modality, of course, is psychological: the modality of need. For our patrons, when and where do they find themselves in need and when and how can we structure our services, so we have a presence in the right venue at the right time? And for our peer providers, when and how can we best structure our training to obviate critical moments of need but also provide timely communications at points of need?

It is at this juncture that the application of a connectivist approach to learning proves particularly helpful. As outlined previously, connectivism, based in part on network theory, foregrounds the way learners connect and share, in which knowledge becomes held in common and strongly prioritizes the role of digital technologies (Siemens, 2005). As the previous section provided several examples of our attempts to match provider and patron modalities, in what follows I will focus instead on matching modalities within our peer reference and instruction program.

One might usefully employ a connectivist approach to reviewing the digital means of communication used by our team. First, there is the online libguide that collocates
operational, research and training materials such as videos and quizzes. Always available asynchronously, the guide can be invoked synchronously as needed and is a crucial, though relatively static, anchor of our knowledge network. It is available anywhere someone has a device connected to the Internet. The guide is maintained by the supervisors and so may be viewed in a slightly negative way as one-directional. More participatory, and less one-directional, are the equally online tools for calendaring; through each term, a new baseline work schedule is set; these can be updated by all our providers and supervisors as needed for desk coverage and instruction sessions. These tools, then, are located online and exist asynchronously but bring extra value because they can be consulted anywhere and changed synchronously.

For directly communicating to the entire group, we use two tools. One, email, might be snarkily deemed semi-asynchronous – depending on when a message is read. Messages can be one to one or one to many. The other, group text, might be viewed as primarily synchronous – again, depending on when a message is viewed and by how many recipients. Email has the advantage of supporting longer and more involved messages, but the disadvantage of possibly lingering in an inbox for several hours or longer. Not surprisingly, email threads are typically launched by supervisors. Group text has the advantage of instantaneous viewing by recipients but the disadvantage of brevity. Group texts are typically started by peer providers. The LibRATs can send out a query for help when they are stuck and can get multiple answers at the moment of need from both other LibRATs and supervisors. The trick is to use each tool to its best advantage in light of its temporal strengths and the nature of its content. For example, if supervisors want an important but substantive email to be read within a short window of time, they send a simple message out on group text to “check your email.” While our building is still open, of course, we are also able to share knowledge in a shoulder-to-shoulder manner, in person, though generally in the numerical modality of one to one or one to two.

This abstract review and analysis of our communications is important for matching modalities and benefits from the application of a connectivist lens. What follows now is more dynamic, and is perhaps more thoroughly connectivist in approach, with a combined focus on our use of technology and the manner of our learning. As noted earlier, our responses to the pandemic and pre-renovation closure included several solutions for service based on our evolving principles of deliberately matching modalities. But how might we learn if these solutions were any good, let alone optimal? The answer – in this network of shared learning – was to tap more members of our team and gain more information and feedback based on their experiences. To this end, as so often before, our peer providers provided insights that we entirely missed and that can serve us to better inform how to proceed in the future.

The peer provider hired and trained during the pandemic closure had some particularly enlightening reflections. The student had concluded high school remotely and after a full year of university courses conducted online was quite familiar with some of the human behaviors and technical affordances encountered via Zoom. She felt that the LibRAT Buddy pairing worked extremely well, specifically because it was set up as a dyad. She honestly observed that the more people you have on Zoom, the easier it is to say nothing and just sit back, but with only two people it forces you to be engaged. Another strength of Zoom for this mode of training was the ability to screen-share – her LibRAT Buddy could watch her pathways and suggest interventions, or conversely, she could watch the buddy’s pathways. Both being in the shared environment and seeing it while engaged was ideal. Another telling insight – and one that speaks strongly to the issue of matching modalities – was her observation that the training emphasis on digital tools and resources was the best preparation for long-term effectiveness as a peer provider. After having worked at the desk in the re-opened library for a year, she expressed total surprise that most questions of the research variety still had to do with digital resources rather than finding books or items in the library. This student’s insights bear three clear implications: (1) that online resources and tools are best learned in an online environment, (2) dyadic pairing is optimal for such learning
and (3) as most research-based questions involve online tools and resources, training should primarily focus on these. Actions to integrate these observations in our training can range from minor to more radical. A focus on online resources and tools is actually a re-focus—a throwback, as it were—to our original training to equip peer providers for service in the residence halls. The modality of training, however, will require a more radical shift. We have always conducted our initial sequence of five in-person trainings with the full new cohort in our dedicated instructional space or an office with a large screen. While there is still an important role for in-person training—for instance, in learning how to find books by call number on a shelf—by contrast, the navigation of online resources will be much better approached by leveraging the intensity of dyadic pairings on a synchronous digital venue such as Zoom.

Another telling insight arose in relation to our deliberate effort to surface the peer voice through email follow-ups to online questions submitted during instruction sessions. Reviewing the responses sent by the LibRATs we were pleased by the informal student voice, but when directly asked about this activity one LibRAT remarked that it was somewhat robotic, as the questions were very repetitive and even admitted to cutting and pasting. When prodded about how he felt the peer voice might manage to be heard even when nobody could see them, he pointed to chat. He felt the natural tone, “tech lingo” and emojis used by the LibRATs established their student status and helped build rapport during transactions. Confirmation of this appraisal is borne out by the tenor and syntax of comments left for LibRATs, including such remarks as “tks,” “SO helpful!” and “Super helpful, thanks!:D” and even declarations such as “best chatter” and “LibRAT is my new favorite person in the world.”

During that same conversation, an interesting difference between librarian and peer perceptions of providing chat also surfaced. While librarians tend to rail as though offended about the long lags between sending a response and receiving a response, this LibRAT pointed out that it takes time for students to figure out what is being said and that the lengthy gaps did not signal rudeness or indifference but rather the time to think. He saw it as no different than the silence that transpired when posing a question during an online instruction session—as if in silence that he worked with as a productive thing if handled properly. Not surprisingly, one of the ratings for this provider included the comment, “kind, patient, and extremely helpful.”

The LibRATs often share their thoughts about how we can provide better service at points of need, and though not thinking explicitly in the framework of modalities, two recent suggestions entail different modalities. One LibRAT confessed that before being hired she had tried to use the library’s main online discovery platform, OneSearch (Primo), and had been totally confused and had quickly given up. She and another LibRAT independently suggested that we work with them to create very short videos to demonstrate essential keys to using important tools such as OneSearch, on the logic that for them as well as their peers’ videos are a preferred way for some students to learn for demonstrations. Another LibRAT also expressed the wish to start exploring Zoom as a channel for providing peer support.

The foregoing provided two distinct but related ways of applying a connectivist approach to matching modalities for both services and team operations. The first was to assess the strengths, weaknesses and uses of specific platforms for optimal sharing and learning in the light of time and place. The second was to catalyze knowledge in our network through more active, interpersonal learning by engaging the peer providers through sharing their experiences and specifically their insights into the technologies involved. By proceeding intentionally in this way, regarding both services and internal operations, our program is poised to provide services in a proactive and adaptable manner.

**Conclusion and directions for further research**

This article began with a brief history of academic library buildings in the United States of America, tracing the century-long transition from print-centric dispositions to user-centric
dispositions in the Learning Commons model, where information is primarily online and mediated by digital technologies, in which learning spaces are ubiquitous and learning can take place almost anywhere. The transition is paralleled by the transition from patrons interacting with print collections through the mediation of professional librarians and library staff to one in which all participants are immersed in a shared, online environment. This last is an ideal setting for peer-to-peer reference services. Peer reference is both a conceptual and operational extension of the Learning Commons ethos, and peer providers can richly contribute to a vision for reference expressed as early as the 1980s, which advocated for “an information support system that combines time-and-location-independent use of resources, access to productivity software and on demand assistance from both people and expert systems” (Spencer, 2006, p. 243).

The prospective and actual out-of-the-building experiences of the peer reference program at the Robert E. Kennedy Library in many ways confirmed that a library building is not key to providing essential reference services and that habitual in-the-building dependencies can in fact impede creativity. Through grappling with these circumstantial separations from our building, we began to intentionally parse the constraints on various interactions and communications and then devise operational solutions based on optimal affordances for any given scenario. This evolved into an informal framework accounting for modalities of time, location, platform and number. By foregrounding technology and communication through a connectivist lens, we are able to apply the framework to internal and external activities. For every scenario – whether reference, instruction or peer training – our key question has become: what is the optimal modality?

While this article explored this emerging framework and application of a connectivist approach in the context of peer reference and instruction, both the framework and approach might have relevant applications to other academic library programming. This might include outreach and marketing, user experience, organizational communication and resource discovery. Another ripe tangent for exploration surfaced by this article is a potential analysis of the writing of academic library history. Whether such research proves implicating or exonerating, it would be beneficial to know if the narrators (including myself), in choosing specific pasts, are unreflectively serving up justifications for present choices. Productive conceptual launching points for such an inquiry might be Jensen’s (2016) probing article, “Should we Write Library History?” (Jensen, 2016) and Jean Pierre V. M. Hérubel’s “Historiographal Futures for Academic Libraries” (Hérubel, 2022). As a review of American academic library historiography that is also written by American academic librarians, McCallon and Tucker’s recent study might serve as an interesting testbed for such an exploration (McCallon and Tucker, 2022). A third launching point for research, and probably the most important, will be a broader philosophical examination of our personal and professional imbrications in the nebulous nexus of knowing, learning and change. If we are both moving the needle and the needle moving, how should we parse this agency and what is our ethical responsibility?

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