

## Academic Library Innovation: A Selective Review

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### Abstract

This literature review is an intentionally selective compilation of resources and ideas on innovation in academic libraries. It is intended to serve as a primer for librarians wanting a basic overview of innovation concepts and a source for recommended readings. The literature on innovation is steeped in technical lingo and theory and can be overwhelming to a novice. The goals of this article are: to demystify innovation in academic libraries by providing a foundation for those wanting to learn more about it; encourage librarians to explore different types of innovation; introduce practical ideas for implementing library workplace innovation (as well as supporting innovation on campus); and provide provocative ideas to help spark creativity locally.

### Introduction

“Libraries play a unique role in the ecosystem of innovation. As providers of access to information and as facilitators of the creation of new knowledge, libraries foster innovation throughout society. By being adept at innovation ourselves, we can better meet the needs and demands of the communities we serve, thereby better facilitating innovation throughout society (Scott and McNamee 2015, 5–6).”

Thanks to the COVID-19 pandemic, libraries worldwide have scrambled to adjust their services and policies to reflect the remote access needs of their clientele in innovative ways; however, innovations in libraries existed long before this pandemic. In 2015, there was a rallying cry in a *C&RL News* editorial by Scott Walter and D. Scott Lankes: “Just as ACRL launched a new approach to how we study and articulate the ‘value’ of the academic library to the higher education enterprise, we think the time is right for a similar, and equally inclusive, approach to the study of ‘innovation’” (Walter and Lankes 2015, 857). This did not just pop up out of nowhere. As they mentioned in their editorial, in 2015 *U.S. News & World Report* began including “Most Innovative Schools” as part of their university rankings. They also noticed innovation was starting to be listed as a goal in strategic plans for many universities and libraries. Innovation within libraries is not new. In 1989, a thematic issue of *Journal of Library Administration* (1989, vol 10, issue 2-3) focused on creativity, innovation and entrepreneurship in a variety of areas within the

library workplace and in different types of libraries. *So why has it taken so long for innovation methods to filter down into everyday practices for libraries?*

When new technologies are introduced (e.g., scanners, makerspaces or 3D printers), there is considerable trepidation among librarians about purchase costs, training, expensive supplies, security around possible misuse or vandalism, liability due to possible injuries, and where to house them (Lehnen 2019; Burke 2014). Expensive new technologies are also subject to controversy as libraries debate whether or not they are a fad or worthwhile in the long term. In addition, there are mixed opinions on whether they belong in academic libraries or somewhere elsewhere on campus (Colgrove 2013; Lehnen 2019; Bieraugel and Neill 2017). The word “innovation” also brings to mind similar concerns, fears and questions. The initial trepidation can slow or prevent librarians from starting down the path. While some progress is being made in this area, there is more that can be done to calm fears and ease the way.

There is a wealth of scholarly literature that focuses on academic libraries and innovations. The bulk of it focuses on **supporting** innovation needs of students and other researchers on campus. Some examples include: providing makerspaces (Burke 2014; Lehnen 2019; Nichols, Melo, and Dewland 2017); innovation hubs (Leebaw and Tomlinson 2020; White 2016); technology and equipment (such as 3D printers or Arduino kits); creating collaborative and co-working spaces for patrons (Nichols, Melo, and Dewland 2017; Schopfel, Roche, and Hubert 2015); as well as teaching users to locate patent information and use business databases.

Libraries can also support innovation **within the library workplace and profession** (IDEO 2015; Falciani-White 2021) by encouraging risk-taking (which includes accepting and learning from failures), using technology more creatively, letting go of old and less-effective tasks/processes, and having a culture that encourages rethinking library services and backroom workflows (Rodriguez 2017; Evener 2015; Ippoliti 2018; Falciani-White 2021). Within the profession, innovative practices, models and ideas include transformative agreements with publishers, controlled digital lending, and critical librarianship (ACRL Research Planning and Review Committee 2022). All of these sources note that success requires demystifying innovation as a scary concept (which includes de-jargoning it) and fostering a culture of innovation and continuous improvement in the library.

Existing reviews and articles are steeped in technical lingo and theory and can be overwhelming to someone trying to learn the basics. The main goal of this article is to serve as a primer for those wanting a basic overview of innovation as it applies to academic libraries and to help identify useful resources to demystify it. A secondary goal is to introduce practical ideas for

implementing library workplace innovation (as well as supporting innovation on campus); and provide provocative ideas to help spark creativity locally.

## Definitions

Innovation can mean different things to different people. A Google search will find various word origins and definitions (including disagreements and definitions altered to fit specific purposes). According to the *Oxford English Dictionary* (the classic authority on word origins):

Innovate comes from the Latin word *innovāre* (renew, alter) and *novāre* (make new)

Innovation – is the act of innovating

Note that the focus is not on new, it is on renewal. Innovation differs from entrepreneurship in that “Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service” (Drucker 1985, 19). Entrepreneurship is often tied to business ventures where the outcome is a marketable product or a patented invention; however, the spirit of entrepreneurship exists everywhere. Harvard Business School uses a definition formulated by Howard Stevenson, “Entrepreneurship is the pursuit of opportunity *beyond resources controlled*” [emphasis added] (Eisenmann 2013). Intrapreneurship is a similar sounding term that adds more confusion to this jargon-filled arena. At its simplest, an intrapreneur is “*an individual within an organization who is an innovator and change agent*” [emphasis added] (Almquist and Almquist 2017, 21).

Social and civic innovation are two main types of innovation found in libraries. Their definitions overlap and some innovations fit simultaneously in both categories. **Social innovations** are “innovations that are social both in their ends and in their means. Specifically, we define social innovations as new ideas (products, services and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships or collaborations. In other words they are innovations that are both good for society and enhance society’s capacity to act” (Murray, Caulier-Grice, and Mulgan 2010, 3). **Civic innovations**, at their most basic level, are “driven by individuals who are motivated to change the current system and looking for ways to make a societal improvement.” They involve participative citizenship and “improving a city’s operation and/or the lives of its citizens” (Deaderick 2017). Some examples could include: smart phone applications to report city street potholes; improving public access to social programs and health services; and, novel ways of providing information about polling locations during elections. The Open Access movement is an example of an innovation that is both social and civic.

## Previous Literature Reviews

In 2015, Curtis Brundy examined 29 studies (including dissertations) related to academic libraries and innovation (Brundy 2015). He concluded that “[a]lone, none of the studies provide a definitive direction for improving innovation in academic libraries. But taken together, an outline of the innovative academic library as one with a flatter organizational structure that encourages and enables participation in decision making begins to emerge.” Further research Brundy recommended included: organizational structures that promote innovation, climate that supports and drives innovation, and qualities that innovative librarians share.

Jennifer A. Bartlett provided what is essentially an abbreviated literature review on library innovations as part of a column in *Library Leadership & Management* (Bartlett 2016). She recommended using the framework from the *Journal of Library Innovation* (now defunct) as a good starting point for thinking about innovative practices:

- The discovery of unmet user needs.
- The introduction of new services or the retooling of traditional services resulting in a better user experience.
- Creative collaboration between libraries, or between libraries and other types of institutions, resulting in demonstrable improvements in service to users.
- Implementing new technologies to improve and extend library service to meet user needs.
- Explorations of the future of libraries.
- Pilot testing unconventional ideas and services.
- Redefining the roles of library staff to better serve users.
- Developing processes that encourage organizational innovation.
- Reaching out to and engaging library users and non-users in new and creative ways.
- Creative library instruction and patron programming.
- Finding new ways to make library collections or library facilities more useful to users.

In 2019, Anne Llewellyn authored a literature review on academic library innovations for learning and teaching. She identified themes related to academic librarian roles; changing pedagogies; digital learning/e-learning; information literacy; partnership and co-creation; student experience; space and learning (Llewellyn 2019, 130). Scattered throughout the text are examples that may help spark additional innovations. In her conclusion, Llewellyn forecasts community-impact innovations beyond just those for learning and teaching.

“Academic libraries have the potential to be at the centre of the university value to promote community engagement and lifelong learning, providing accessible resources to both communities of students and local communities...these innovations that draw in the public contribute to the democratization of information, but also raise the profile of the academic library on campus and increase usage data” (Llewellyn 2019, 144).

These literature reviews all provide ideas and examples that may help generate creative solutions; however, none of them are very helpful to novices looking to learn more about the basics of innovation in libraries or identifying best practices for implementing innovation in libraries.

### **Fostering a Culture of Innovation**

“[A]n innovative culture is an environment where abundant problem-solving ideas are welcomed, tested, refined, and then put into action” (Newbold and Stover-Hopkins 2013, introduction).

Building a culture of innovation is a key component of successful innovations, as is the corollary that to succeed requires accepting the possibility of failures along the way. Particularly noteworthy is a book chapter written by Cinthia Ippoliti (2018, 3–26). She includes intentional change theory and change management tips along with activities to encourage change (professional development programs, idea jams, pitch competitions, and time away from daily duties to innovate). As part of change management tips, Ippoliti does an excellent job of covering excuses such as “it will never work” and toxic environments. “Fear of failure is an inherent block against innovation and it’s important to embrace it” (2018, 6–7).

Scanlon & Crumpton (2017) provide sage advice in the way of supervisory responsibility to create a climate for entrepreneurship. They note that nurturing an entrepreneurial climate requires leadership that utilizes “good communication, emotional intelligence, and a willingness to challenge the status quo.” They go on to outline four supervisor/leader behaviors for supporting an entrepreneurial culture: maintain an open-door policy; exhibit transparency in decision making; allow dissension, not derailment; provide a safe place for risk takers.

*Intrapreneurship Handbook for Librarians* is a primer for encouraging innovation and change agents. The authors include an excellent section on Innovations versus Improvements (Almquist and Almquist 2017, 51–52). They also guide readers through creating an intrapreneurial culture and specify that intrapreneurial innovation “should focus on projecting the unique strengths

and resources specific to a library and emphasize the ways a library provides added value” (2017, 52). Julie Evener draws ideas from the business literature to provide a practical and very readable guide for academic librarian innovation processes (Evener 2015). She provides thoughts for library leaders on engaging employees, cultivating creativity, and creating buy-in for new ideas. Evener quotes Carol S. Dweck who asserts that failure is not a “judgment of a person’s inherent value but rather as a necessary condition for growth....A work environment in which setbacks and imperfection are unacceptable is a work environment training its employees to stick to doing what they already know how to do well” (Evener 2015, 302–3).

New on the scene is Nancy Falciani-White’s toolkit for creativity in academic libraries (Falciani-White 2021). This book is written in a very easy style. It is full of encouragement for building creativity into the workplace. She believes creativity to be essential for innovation, change, and employee satisfaction (2021, 145–47). The toolkit includes information on fostering creativity in individual employees as well as library leadership. A large portion of the book is devoted to setting the stage with psychology and the creative process, including debunking common creativity myths. Chapter 6 provides results of an academic librarian survey related to creativity. It includes comments and ideas from librarians on how they utilize creativity in their jobs in various areas of the library (technical services, collection development, and “other areas”). Falciani-White frequently reiterates that creativity is something that can be developed more fully and she provides numerous strategies for doing so.

### **Innovation Methods & Strategies**

“[L]eaders use the power of influence to share a vision of the future that inspires library workers and external partners to accept the challenge of innovation (S. Bell 2019).”

Innovation does not require adhering to specific methods; however, methods can help provide structure for those who need it. Design thinking, disruptive innovation, and open or collaborative innovation are among many techniques being experimented with in academic libraries. Rachel Ivy Clarke wrote an introduction to design thinking (Clarke 2020) for innovating in libraries, in general. Clarke uses very plain language to help beginners understand the basics of design thinking. She describes it as a method for finding human-centered solutions to problems that don’t have a scientific answer (Clarke 2020, 44). It is an iterative process – building in continuous improvement and feedback. Try, evaluate, revise, re-try, evaluate, revise. It may come out perfect on the first try, but always be looking for ways to improve it.

Steven J. Bell authored one of the earliest published articles in the library science literature related to design thinking. Bell was ahead of others in the profession and was urging libraries and library school programs to move in the direction of utilizing design thinking (S. J. Bell 2008). These ideas picked up steam in 2015 with the release of *Design thinking for Libraries: A toolkit for patron-centered design* (IDEO 2015). This 121-page toolkit was developed by IDEO in partnership with the Chicago Public Library and Aarhus Public Libraries in Denmark. It provides a step-by-step guide to adopting design thinking as a staff-driven process for change.<sup>1</sup> Bell published a synopsis of the *Toolkit* including the concept of **wicked problems**, problems with no obvious solution, and specifically encouraged academic libraries to learn more about it and use it to find innovative solutions to better serve users (S. Bell 2015). Bell also regularly encourages librarians to step out of their comfort zones and consider new directions. In “Leading the Library that Leads the Way in Innovation,” Bell (2019) posits that “when the community expresses a need for a solution to a problem going ignored or unsolved, that presents an opportunity for librarians to demonstrate they can lead the way with innovation.” He talks about avoiding innovation fatigue, innovation is not “one thing” and mentions incremental, evolutionary and radical innovation.

Disruptive Innovation is discussed in detail by Shea-Tinn Yeh and Zhiping Walter as they raise the alarm that digital technologies and resources available on the Internet are “gradually replacing academic libraries in the information-seeking process” (Yeh and Walter 2017, 795). They propose 8 response strategies and encourage librarians to see disruption as an opportunity rather than a threat:

- Dedicating personnel and financial resources for innovation
- User participation
- Building partnerships with other libraries
- Building partnerships with vendor and commercial communities
- Autonomy granted to the innovation team
- Tying performance evaluations and rewards to innovation outcomes
- Pro-innovation leadership
- Innovation-supportive culture

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<sup>1</sup> In 2015, a free copy of the book and accompanying *Activities Workbook* was available to download by filling out an online form. The toolkit is still available, and some of the activities, by visiting their website; however, the Tools and Examples sections of their website have replaced the workbook.

A disruptive innovation case study from the University of Texas at Arlington Libraries (Bichel and Scalf 2017) provides clear, considerate, discussion of steps taken in their change process and point out that part of the challenge for academic libraries is the tendency to be “thoughtful in their approach to change” – which the authors equate to being slow and risk averse. They also recommend the classic book, *The Innovator’s Dilemma* (by Clayton M. Christensen in 1997) as helpful to the change process.

Jennifer Rowley advocates open or collaborative innovation. It was first described by Henry W. Chesbrough in 2003 as “innovation that bridges organizational boundaries” (Rowley 2011, 208). Rowley asserts that “by opening up their innovation processes, searching beyond their boundaries, and developing and managing a rich set of network relationships, organizations enhance their capacity to innovate” (Rowley 2011, 211–12). For academic libraries, this could foster closer relationships between disparate library units, with units across campus and/or other libraries.

### Examples of Recent Academic Library Innovations

Library services have been the largest focus of publications related to academic library innovations. There are many, many publications down this rabbit hole and all are aimed at specific innovations – e.g., providing makerspaces, chat services, etc. These are mentioned in the introduction section of this article. Recent innovations include COVID-related changes, library spaces, student wellness activities, building community, collections-related innovations, utilizing artificial intelligence, and advancements related to data.

#### **COVID-related:**

The COVID-19 pandemic caused many essential changes to academic library services. For a summary and timeline of events, see Dobrova and Anghelescu (2022). Due to the nature of the pandemic and the shift to online everything, information about academic library innovations began being shared in a wide variety of outlets such as emails, virtual meetings, webpages, conference presentations and peer-reviewed articles. Proving the old adage that “necessity is the mother of invention,” libraries quickly found ways to alter existing services and policies and began providing new/temporary services. Two main resources summarizing academic library challenges and impacts of COVID are the American Library Association’s *COVID-19 Recovery* website (2020) created in mid-2020 and the *State of American Libraries 2021 Special Report: COVID-19* (2021) published in April 2021. The recovery website provides information related to data collection and research on library responses and impacts along with guidance and protocols to

help all types of libraries deal with the pandemic. The *Special Report* highlights examples of innovative library services and programming as librarians rose to the challenge to help mitigate issues caused by library closures and the shift to online access wherever possible. Academic library examples are scattered throughout the report. In June 2022, “Top Trends in Academic Libraries” (2022) also highlighted COVID-related issues. “Despite the challenges raised by closures, libraries continued to deliver core services and creative solutions, including virtual reference with increasing complexity, a renewed focus on digital literacy with the rise in online learning, and born-digital collection development” (ACRL Research Planning and Review Committee 2022, 243).

### **Library spaces:**

In recent years, listening to user needs and finding ways to implement viable solutions have resulted in new library spaces for: meditation or prayer rooms (Ramsey and Aagard 2018; Mross and Riehman-Murphy 2018), gender neutral/inclusive bathrooms (Pun et al. 2017), specially designed lactation rooms and family-friendly spaces (Godfrey et al. 2017; Graff, Ridge, and Zaugg 2019), and bike desks or “activity-permissive workstations” (Hoppenfeld et al. 2019). Most of these involve budgeting for and remodeling library buildings or buying equipment and furnishings. On the lower end of the cost spectrum, smaller changes (such as: providing charging stations for cell phones and iPads; private spaces for virtual job interviews or presentation practice space; and information on seating availability on library websites) have also resulted in more user-friendly library spaces. Low/no cost technology-based applications are also being used in academic libraries. Chinese libraries utilize a popular social media app called WeChat as a seat management tool while some U.S. libraries use LibCal for researchers to reserve seats in the library. The Iowa State University Libraries (n.d.) use an API and Gate Count software to provide likelihood of seating availability on their library website. This is handy for full-capacity times around final exam periods and can also help with social distancing. Libraries that require researchers to login to library computers can also utilize this to determine building capacity and provide information on open computer locations within the library.

### **Student wellness & building community:**

Academic libraries have partnered with multiple campus units in the past; however, in recent years, they have also begun offering more unique wellness services within library spaces. Stress-relief activities prior to or during final exam periods have become very popular and include activities such as yoga breaks, massages, therapy animals, gaming, and arts and crafts. In a

somewhat novel twist, Elizabeth Ramsey and Mary C. Aagard suggest these initiatives should be “hosted at all times and not just during known high-stress periods like final exams.” They also encourage more library-sponsored programming, collections and space use related to reducing *other* typical student stresses such as relationships and financial burdens (Ramsey and Aagard 2018). In a similar vein, Keren Dali et al recommend integrating “non-academic reading into various aspects of campus life” (Dali, Vannier, and Douglass 2021, 270–71). They propose reader services that are more experiential than typical readers’ advisory services and they suggest bibliotherapy as “a sign of commitment in the reading experience.” Librarians are not trained bibliotherapists but reading can be therapeutic as well as self-help. Peggy Keeran and Carrie L. Forbes (2018) bring together articles that cover traditional outreach strategies and those that specifically aim to build community in unique ways. Suggestions they made included: a program aimed at student financial literacy, outreach to student organizations, peer-mentoring programs, creating student advisory boards, and hosting a “research day” for high school students. They also include a section on ideas for off-campus outreach that includes STEM programming outside the classroom, library exhibits and programs for the community, and high school information literacy outreach. Academic library support for faculty and staff (outside of the research arena) receives less attention than student needs; although, the University of Denver innovations in this area (Shapiro 2016; Dali, Vannier, and Douglass 2021; Bishop 2018) argue for investing in programming and collection development for a wider community than just students.

### **Collections:**

Launch of the HathiTrust Shared Print program, along with space constraints in academic libraries and the shift to online everything, has sparked recent interest in expanding innovations around collaborative collections and shared print programs for both journals and monographs. This has necessitated some creativity in best practices, standards and workflows to manage these agreements and collections across institutions. COVID-related shifts to online materials, heavy use of open educational resources and open access content also continue to fuel support for transformative agreements along with alternate models for funding and innovative changes in access to academic library collections (ACRL Research Planning and Review Committee 2021, 19–25; 2022, 245–47).

### **Artificial intelligence:**

ALA provides information on artificial intelligence (AI) as part of the Center for the Future of Libraries / Trends section of their website (American Library Association 2019). The site

summarizes the basics of AI and the “Why It Matters” section provides very broad possibilities for impact on libraries. This is a great starting place for basic information before diving into more technical articles. Cox, Pinfield and Rutter (2019) provide an excellent overview of artificial intelligence and one of the most thorough discussions of library applications of AI to date. In the discussion section, the authors speculate on future roles related to AI instruction, teaching users data literacy skills and how to protect their privacy, procuring content with appropriate licenses, libraries as data providers, data analysis, data quality control, and “key intermediaries in building services based on AI.” The conclusion provides intriguing, thought-provoking ramifications such as what users expect of libraries, who users will be (including AI tools as users), and what skills librarians might need in future. Artificial Intelligence is also covered in “Top Trends in Academic Libraries” (ACRL Research Planning and Review Committee 2022, 247–48). The article briefly summarizes recent experiments with descriptive cataloging, neural networks and computer vision, data-mining techniques, and AI tools such as Keenious, Paperpal Preflight, and Newspaper Navigator. Nishad Nawaz and Mohamed Azahim Saldeen (2020) provide a review of AI chatbots in academic library reference services with the aim of encouraging their use to cater to millennial users. They recommend use of Facebook Bot Engine, Google Dialog flow, Microsoft Bot, IBM Watson and Amazon Lex for anyone wanting create their own AI chatbot.

### **Data services:**

Data is a gigantic, over-generalized term that includes research data management, data analysis, data visualizations, data mining, data curation, data ethics and data science education (ACRL Research Planning and Review Committee 2022, 248–49). In 2020, Jane Radecki and Rebecca Springer conducted a survey of US academic library research data services. They found that, overall, Carnegie R1 institutions exceed R2s and SLAC [selective baccalaureate colleges] by more than double in the number of research data services offered. “This inventory also raises important questions about how research data services are best organized, funded, and staffed” (Radecki and Springer 2020, 5). Both of these sources mention the need for further librarian skill development and a continuing evolution of data-related service innovations in academic libraries in the future. Innovations here involve organizational structure changes; collaborations with IT for storage, security & purchasing software to support these areas; teaching best practices to researchers; and creation/utilization of data educator librarians.

### **Conclusion**

“[T]he future success of academic libraries is dependent on their ability to think imaginatively as well as their willingness to work collaboratively with faculty, professional staff, students, and the community at large” (Shapiro 2016, 40).

Academic libraries have been innovating for years; however, wherever there are challenges, there is room for innovation. It is not just about new ideas, services or technology. To be successful over time, libraries also need to have good change management practices and a supportive culture. There are numerous barriers to innovation involving human nature: lack of know-how, fear of failure, resistance to change, and lack of self-confidence in creative thinking. None of these are insurmountable and they are worthwhile to overcome. Learning basic techniques, utilizing examples from other libraries, brainstorming with co-workers, and starting small helps increase self-confidence and the likelihood of success. Building off the ideas presented in this literature review:

- Consider ways to entice other campus community members into the library. For example, step outside the box and provide services and resources for campus staff and their families or non-research-oriented campus units such as facilities management, campus police, or dining staff.
- Students have non-academic needs. Consider providing services or resources to help reduce stresses such as financial burdens, poor eating habits, and interpersonal relationships.
- Design thinking encourages identifying barriers and then eliminating them. To identify service barriers, think about how many times you tell someone “no, we don’t offer that service” or “no, we don’t allow that in the library”? Re-examine the why behind these. Is there a valid reason or is there a barrier that can be removed (or at least lowered)?
- COVID-19 work-from-home strictures brought out the human needs aspects of working in isolation including home technology support, psychological and financial difficulties and childcare. Look for and implement creative services and processes to help solve or minimize problems the library and the whole campus community face - - employees and students.
- Relook at library staffing needs. Remote versus in-building as well as workflows, office spaces, and organizational structures. How can we better support and utilize staff as we move forward with new services, different collection models, and technological advancements?

- Nurture staff creativity and provide safe places for risktakers. Provide quiet, private spaces and time to spend on idea creation along with support, encouragement and rewards for innovations.

Common threads among the publications reviewed are: identify problem areas and strategically look for creative solutions; identify service gaps; be open to re-examining what is currently being done; start new conversations to collaborate with other campus entities; find ways around barriers to improvements; start out with small solutions/changes; and focus on continuous assessment, revision, and improvement after implementing a change. Some, but not all, innovations are centered around new technologies or software. Innovations can also engage a wider community of users than academic libraries traditionally serve. Innovation can be simple or complex, formal or informal. There is not one style that fits every workplace, library or community. Learning more about innovation is a great first step. Next, start thinking about applying it by identifying the problems screaming out to be addressed and barriers to innovation in your unit/library. What fits your style of innovating? Who is your community (S. Bell 2019; Shapiro 2016; Llewellyn 2019)? Who are you serving and how (Pellack 2012)?

### **Additional Innovation-Inspiring Readings**

BEANs, a concept covered in Design Thinking resources, was first introduced by Scott D. Anthony, et al. BEANs is an acronym for: Behavior Enablers, Artifacts and Nudges (Anthony et al. 2019) and is a method for identifying barriers to innovation and changing behaviors that block innovation. Anthony et al., also provide some noteworthy prompts for innovation. “A good approach is to have employees in focus groups on innovation supply endings to the question ‘Wouldn’t it be great if we...?’”

*Where Good Ideas Come from: The Natural History of Innovation* is very readable and stimulating. “The argument of this book is that a series of shared properties and patterns recur again and again in unusually fertile environments” (Johnson 2010, 17). The 7 patterns he found: the adjacent possible, liquid networks, the slow hunch, serendipity, error, exaptation, and platforms.

*Whoever Makes the Most Mistakes Wins: The Paradox of Innovation* (Farson and Keyes 2002) is a very small book packed with wisdom. Farson & Keyes set out to change perceptions of success and failure using a wealth of examples in a very enjoyable writing style. They also persuasively examine and demystify the fear of failure.

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