# 2. Interstitial Design Processes: How Design Thinking and Social Design Processes Bridge Theory and Practice in TPC Pedagogy

Liz Lane
University of Memphis

Abstract: This chapter explores interdisciplinary concepts of design theory: design thinking and social design. The author presents interstitial design as a combined, process-based approach for exploring social justice issues through design within technical and professional communication, offering insight into how interstitial design can work within our classrooms and genre-based assignments.

Keywords: design thinking, social design, theory, praxis, pedagogy

#### Key Takeaways

- Design thinking provides an interdisciplinary approach to confronting communication design problems within and beyond the classroom.
- Social design offers a process for encouraging exploration of broader issues and audiences through an explicitly social lens.
- Both design thinking and social design processes can enhance our pedagogies to engage with social justice issues in classroom settings.

At the core of technical and professional communication (TPC) pedagogy, design literacy contributes to foundational knowledge of TPC best practices, including best practices regarding document design (Sánchez, 2017; Williams, 2015), user-centered design (Redish & Barnum, 2011; Salvo, 2001), and accessible design (Melonçon, 2014; Walters, 2010)—what Kelli Cargile Cook (2002) terms "layered literacies,"—multifaceted skill sets that address increasingly complex industries and competencies. Frequently, our students go on to produce deliverables for specific audiences and design communication for a myriad of workplace or community contexts, yet as our field's social justice turn continues to reshape our pedagogy, research, and engagement (Haas & Eble, 2018; Jones et al., 2016), our understanding of design for what and for whom is continually evolving, responding to and designing for users in an increasingly globalized workplace and community. With the rise in popularity of design thinking as a framework for approaching problem solving, design terminology and theory has further proliferated disciplines like TPC that explicitly inhabit the aforementioned sectors of different types of design and the social impact of those pursuits. In this chapter,

I explore a layered approach to synthesizing these interdisciplinary and adjacent approaches to "design," presenting interstitial design as a bridge to connect and extend our field's strengths in theory and praxis of design and critical thinking. I explore the complex uses of "design" within TPC and outline the benefits of both design thinking and social design, as these theories enhance our extant work within TPC and chart flexible paths for continued engagement with action-oriented, socially just foci.

Design, when considered as a core concept of making process-based decisions toward crafting a solution or deliverable, involves recursive critical thinking toward a goal. Within writing studies classrooms that range from rhetoric and composition to TPC, recursive processes shape how we frame concepts to students and influence how students demonstrate learning. Sally Henschel and Lisa Melonçon (2014) investigated common practical and conceptual skills valued by industry and academia, mapping the overlaps to propose "critical system thinking," which they define as the ability to "understand the processes by which parts are linked together; the ethical responsibility to consider ideological/power stances of those structures and critique when necessary" (p.13). Though as the authors note, the model of critical system thinking they put forth is difficult, if not impossible, to implement into one TPC course, as they outline an inventory of TPC courses to dispatch a layered approach to the process. This chapter explores the broad and flexible nature of interstitial design as an adaptable practice to implement in the classroom and frames this discussion through this main question: In what ways might our pedagogies better promote a practice focused on multifaceted design processes to reach these ends?

### Contemplating the Work of Design in TPC

In TPC, it is no longer enough for us to use the term "design" as shorthand. We must interrogate and articulate what we mean when we say design, as we know from our roots in rhetoric, user experience, and effective communication writ large that there is never a neutral approach to "design." Fernando Sánchez, in his 2017 study of how writing studies scholars approach and write about design in the field's major journals, writes that "... design has become an understood facet of technical communication, it continues to be a subject of study within our field that gains importance and complexity—a complexity that can generate multiple (and sometimes contradictory) terms stemming from our own and borrowed from other fields" (p. 360). Further, he writes, "Essentially, the proliferation of design in technical communication has led to different terminology and varying starting points in the rich literature of design" (p. 361). Similarly, Charles Kostelnick identified that "the field of creative problem-solving—design—can shed light on the evolution and future direction of the writing paradigm," again pointing to interdisciplinary offerings of design (1989, p. 267). Our pursuit of design is always inherently interdisciplinary, but it is time for TPC to mark its

unique take on design that echoes the humanistic roots, adaptable potentials, and creative processes that proliferate our pedagogy and scholarship.

Though terms such as "design thinking" and "creative thinking" are enjoying a popular (and at times buzzworthy or trivial) moment in our field and many others, this chapter examines an interstitial approach to teaching design processes by way of the design thinking process and social design. An interstitial approach to teaching design, defined below, will allow our students to analyze cultural and social justice issues in rapidly evolving "real [workplace] settings" that demand flexibility and responsiveness to increasingly connected and global audience needs (Henry, 2000). As this collection emphasizes the changing nature of the technical communication field and classroom, I argue a renewed approach to our pedagogical processes can only benefit our students and ourselves in the dynamic technical communication field today. I focus specifically on social design (Resnick, 2016; Shea, 2012) and elements of design thinking (Brown & Wyatt, 2010) as interstitial tools to support our theories, practices, and approaches within TPC. These design theories are each process-driven and recursive and, when joined, allow for a flexible cognitive process that can benefit the many types of problems TPC curricula are sculpted to solve, or offer students the experience of researching and exploring to solve. By exploring both the recent influx of design thinking and social design-focused curricula and considering the field's evolving pedagogy toward socially engaged design, this chapter specifically ponders questions in the following sections such as: Where does design thinking and social design fit in TPC pedagogy? How might the design thinking, and social design processes, encourage our pedagogy to be more accountable to local and global user needs? What benefits does an interstitial approach to teaching design offer our students?

#### Defining Interstitial Design Processes

The concept of *interstitiality* considers the forming or occupying of interstices, a space between boundaries or merely "in-betweenness," the "borders of genre," and articulates an idea of not fitting perfectly into one exact category (Schanoes, 2004). It is a concept that sees usage in biology, the arts, computing, and architecture that centers on connections, a term I employ here to examine the junctures that emerge between designer, situations, and the problems that we seek to solve through design. An interstitial framing of design reflects the term's frequent state of flux across disciplines (Kaufer & Butler, 2013). I term the practice of a dynamic approach to teaching design in TPC as *interstitial design* because of the multifaceted, interdisciplinary benefits of blending several theories of design into one broad, flexible recursive process for TPC pedagogy that is itself evolving rapidly. Interstitiality strengthens and illuminates the connections between two junctures, buttressing an adaptable approach to unique situations.

As TPC instructors and scholars frequently turn to interdisciplinary sources to reinforce our field's work, taking an interstitial approach to teaching design through and for social justice issues is a natural progression. I explore interstitial design as a conduit for these interdisciplinary habits we already employ as TPC teachers and scholars, how our pedagogies often sit at the interstices of, for example, visual rhetoric, universal design, and usability studies (Greenwood et al., 2019; Holsinger, 2012; Redish & Barnum, 2011; Shea, 2012). In 2019, a special issue of the Journal of Business and Technical Writing addressed this emerging approach to design thinking in TPC, including an article by April Greenwood, Benjamin Lauren, Jessica Knott, and Dànielle N. DeVoss that explored the different ways instructors apply design thinking principles as a rhetorical methodology in their various classrooms. An interstitial design process also bridges our theories and practices of applying design in TPC more apparently to contexts within and beyond our classrooms, where we challenge students to apply TPC best practices through applications and software as they learn. The familiar genres of TPC curricula—that is, assignments such as employment documents; technical instructions and descriptions; white papers; usability studies, surveys, and reports; and collaboratively edited and written documentation, to name a few—are grounded in similar recursive foundational concepts of defining, drafting, iterating, revising, and delivering.

## ■ Interstitial Design in the Classroom

In her research on teaching justice issues in the university classroom, criminal justice scholar Kristi Holsinger discusses traditional teaching practices' singular approach, such that values "conformity, an individualistic approach, and competition," a method that oftentimes encourages "passive learning and even creates passive learners" (Cameron, 2002; Campbell & Smith, 1997, as cited in Holsinger, 2012, p. 14). Yet, effective principles for undergraduate education, such as those presented by Arthur W. Chickering and Zelda F. Gamson (1987) center "cooperation and collaboration among students in the classroom and encourage active participation in order to maximize student learning"—a socially collaborative approach to creative problem solving by doing and exploring (Holsinger, p. 15). An interstitial design approach flourishes when collaboration rests at the center of its application, echoing James Purdy's claim that "design projects require multiple hands and minds, and a design thinking approach to writing makes such collaboration standard, accepted, and unquestioned" in his study of design thinking in writing studies (2014, p. 633). Indeed, the TPC classroom is often wildly collaborative, in that we prepare our students to collaborate and test project management skills for eventual implementation in their professional lives beyond the classroom. We value recursive, iterative composing processes, borrowed from our roots in composition and writing studies, to apply process-driven composing to the dynamic genres of TPC, such as white papers, websites, extended usability studies and reports (Bay, 2010; Purdy, 2014). Thus, it is a natural progression to reconsider these collaborative values and pedagogical practices as a process of designing toward effective and dynamic student needs and learning outcomes, lest we "eclipse the possible connections" that enable us to adapt and evolve with the changing field (Bay, 2010, p. 33).

In her research on cognitive psychology's bearings on technical communication, Ginny Redish examines constructivism, arguing that "each reader, writer, and student has his or her own schemas and mental models that affect how he or she perceives and remembers what happens in a document or writing assignment," ultimately claiming that "listening to lectures is seldom as useful a learning experience as actually doing relevant work" (1997, p. 70). Instead, Redish presents schemas as flexible, unstructured processes through which users can "link information" by working with their best "mental model . . . a changeable collection of associations in people's minds" (1997, p. 71). As thinkers, composers, writers, and practitioners, we are process-driven at our cores, applying our unique preferences for approaching and solving a problem in order to make the most sense of the association in our mind. Likewise, the social and collaborative component of applying such schemas within classrooms allows students to build upon and explore schemas in new contexts and challenges (Redish, 1997, p. 72).

A 2002 study on collaboration and creativity (Madjar et al.) found that it is possible to boost and increase "employee's creativity if supervisors and coworkers are trained and encouraged to provide explicit support" (765), reiterating the value of collaborative problem solving and idea generation that TPC instructors are familiar with in the structure of their courses. In the sections below, I discuss how two different design theories can coalesce into an interstitial approach to foster the benefits of collaborative cognitive schemas. Though their foundations include dividing the design process into meaningful and manageable compartments or a process-based approach, interstitial design processes can also flow together and create a strong, interdisciplinary practice that can enhance our pedagogies in TPC.

# Overview of Design Thinking and Benefits to TPC

A term first thought to have been used in 1987 by a professor of architecture at the Harvard School of Design, Peter Rowe used the term *design thinking* to "account for the underlying structure and focus on inquiry directly associated with those rather private moments of 'seeking out' on the part of designers" (Rowe, 1987, as cited in Nixon, 2016). Interstitiality appears to permeate Rowe's early definition of the term, with special emphasis on structures of support and the affective process of inquiring about design problems and audience needs. Since that time, the term has only grown in usage through workshops in academic fields and mainstream business publications, particularly focused toward corporate or economic

success (Nixon, 2016). Popularized by the design consultancy firm IDEO, the design thinking process most widely adopted in current scholarship and application references Stanford University's design school (or "d school") and encourages innovation and human-centric perspectives (Brown & Wyatt, 2010). The process encourages optimism and suppleness, prioritizing "constructive experimentation [that] allows high-impact solutions to bubble up from below rather than being imposed from the top, a process more about doing than thinking," and embracing messy or wild ideas (Brown & Wyatt, 2010, p. 3).

IDEO CEO and president Tim Brown (2015) articulates the firm's design thinking methodology as a cognitive process that "allows people who aren't trained designers to use creative tools to address a vast range of challenges." Brown describes design thinking as an alternative to "conventional problem-solving practices," valuing the process's emphasis on intuition, analysis and pattern recognition, and affective idea generation that allows designers to "construct ideas that are emotionally meaningful as well as functional." Brown recognizes that "nobody wants to run an organization on feeling, intuition, and inspiration, but an overreliance on the rational and the analytical can be just as risky," presenting design-thinking as a process that explores "multiple possible solutions" and combines useful elements of traditional problem-solving schemas. When brought into TPC classrooms, design thinking holds the potential to bridge technical communication best practices and usability scholarship with creative needs analyses for myriad contexts and audiences.

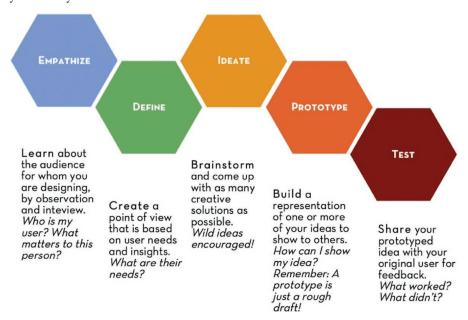


Figure 2.1. The design thinking process as articulated by Stanford's d.school via the Stanford d.school bootcamp bootleg document (Institute of Design at Stanford, n.d.).

Indeed, many aspects of the design thinking process are already familiar territory within TPC, as Tom Lockwood defines the approach as "a human-centered innovation process that emphasizes observation, collaboration, fast learning, visualization of ideas, rapid concept prototyping, and concurrent business analysis" (Lockwood, 2009, as cited in Nixon, 2016, p. 13). Design thinking is an inherently recursive process, encouraging its users to "build in order to think . . . designers learn by doing," which is a pedagogical value many TPC instructors echo in their classrooms and their emphasis on practical, skills-based learning (Nixon, 2016, p. 15). Additionally, design thinking is frequently used in industry contexts, and preparing our students to work with this schema in our TPC classrooms allows them to practice applying its stages and process and preparing to articulate their experience working with design thinking concepts, before they move beyond the classroom boundaries. Tim Brown and Jocelyn Wyatt caution users to not think of the design thinking process as a rote, intractable process but rather as "a system of overlapping spaces" that, as shown in Figure 2.1, can flow into one another, work cyclically, and complement many recursive outcomes within TPC classrooms (2010, p. 33).

The first stage, "empathize," asks designers to identify their user and ponder what matters most to them, echoing the foundations of usability and user experience scholarship (Redish & Barnum, 2011; Rose et al., 2018; Salvo, 2001). Likewise, the "define" stage of the process advises designers to adopt a persona by creating a point of view based on their users' needs and insights, echoing core elements of usability studies and UX scholarship (Melonçon, 2014; Redish & Barnum, 2011). The "ideate" and "prototype" stages are incredibly elastic, as they encourage messiness and wild ideas to find the best design solution for the user, emphasizing rapid prototyping to learn and fail quickly while adjusting prototypes with that new knowledge. With social issues in mind, design thinking offers instructors and students the freedom to err, stumble, and revise within comfortable boundaries of an iterative, recursive cycle. All ideas should be valued and placed into conversation with other prototypes, drafts, and versions. Finally, the "test" stage of the process requires sharing prototyped ideas with the original user for constructive feedback, a usability test hallmark.

As a tool for communication deliverables common to TPC classrooms, the design thinking process emphasizes local expertise and embedded knowledge to best design for specific user needs, placing high value on the user while considering inclusivity and marginalized audiences as a part of the empathizing, defining, and ideation stages of the research process. Many TPC and writing studies courses echo the design thinking process by emphasizing audience analysis, synthesis and critical thinking, and iterative progress toward a final product. This same approach shapes our composing and thinking habits, both inside and outside institutional and classroom environments. Yet the design thinking process urges its adopters to more visibly grapple with and combine these often-invisible cognitive phases at each step. In short, design thinking provides an interdisciplinary

approach to confronting communication design problems within and beyond the classroom, making the process well-suited for an interstitial combination with TPC design best practices, as well as other interdisciplinary design theories, as described below.

#### Exploring Social Design After TPC's Social Justice Turn

Our field is at a crucial and exciting moment of reshaping how we equip students with the skills to respond to a range of dynamic workplace and community needs, blurring the intersections between theory and praxis, workplace and educational institution—a perennial issue our field has brought up frequently (Bay, 2010; Haas & Eble, 2018; Staples & Ornatowski, 1997). In the changing workplace, our students are entering industries where collaborative and project-based work, remote or asynchronous work, and the option of flexible hours are growing common, reflecting a "work environment that values solutions . . . and allows for user- and experience-based solutions rather than those based around budgets and unit-based targets" (Nixon, 2016, p. 10). Employers are increasingly searching for creative innovation in their employees regardless of field, as some researchers suggest that creativity and innovation factor into hiring and advancement decisions in many industries (Florida, 2002; Pink, 2005). And in our globalized world, industries are seeking solutions for addressing social issues through their work (Bay, 2010; Purdy, 2014). A secondary theory to bring into interstitial design approach is that of social design, "the practice of design where the primary motivation is to promote positive social change within society" (Resnick, 2016, p. 12). Social design, also known as public interest design, social impact design, and humanitarian design, is widely used in the field of graphic and universal design. I use social design here as an entry point to exploring social issues in TPC classrooms, an area that Natasha N. Jones identifies as especially pressing as TPC moves beyond its social justice turn. Jones argues that as we integrate issues of diversity and social justice into our pedagogy and scholarship, "we must examine the design and dissemination of communication critically with a focus on understanding how oppressive conditions can be rearticulated and reinforced" (2016, p. 346). Further, Jones encourages TPC scholars to boldly question the social structures of power behind communication in their pedagogy and scholarship, arguing,

social justice in technical communication investigates how communication broadly defined can amplify the agency of oppressed people—those who are materially, socially, politically, and/or economically under-resourced. Key to this definition is a collabora-

<sup>1.</sup> Jones defines diversity as "a focus on the inclusion of various perspectives and viewpoints" and social justice as "critical reflection and action that promotes agency for the marginalized and the disempowered," respectively (2016, p. 343).

tive, respectful approach that moves past description and exploration of social justice issues to taking action to redress inequities. (2016, p. 347)

Broaching such subjects in a TPC classroom can be challenging, yet social design offers a process for encouraging instructors and students to explore broader issues and audiences through an explicitly social lens, highlighting cultural, economic, and racial disparities as a part of the design process. Graphic designer Andrew Shea describes the altruistic approach to social design as using design skills to "support civic and cultural causes," an approach that values "designing with, not for" communities (2012, p. 9). His Designing for Social Change (2012) offers design case study tactics for designers and scholars seeking actionable methods for bridging design theory with social issues that best benefit the target audiences. Shea's work is especially illuminating for TPC classrooms that might partner with community organizations and practice interstitial design through community engagement-based projects.

Recent scholarship on the field's social justice turn charges TPC scholars to "actively integrate" social justice perspectives into our pedagogy and research so that we can demonstrate how the values of TPC can "promote social change on a broader level," equipping our students with the analytical and creative design skills that can address complex social issues through communicative means (Jones, 2016, p. 343). Social design is an ideal theory to apply in our field's post-social justice turn era, encouraging students to critically consider complex social justice problems and to design empathetic, engaging technical communication materials toward various needs. Graphic designer Elizabeth Resnick presents the broader purpose of social design as urging students to study how their "research, analysis, discourse, and creation [of designed components] at local, national, and even international levels" may impact these distributed audiences (2016, p. 13). Inherent in the social design process is the flexibility of its users to "redefine what it means to be a designer," focusing intently on "improving the way [humans] interact and communicate with each other and within their communities as citizen designers," never losing sight of the communal component of design (Resnick, 2016, p. 13). Therefore, calling upon interdisciplinary approaches to design in order to examine social justice issues in the classroom is a natural entry point, extending TPC's focus on the humanistic impact of communication.

### Potentials of Interstitial Design in TPC Pedagogies

Given the flexible and adaptable nature of both design thinking and social design, how might an approach to interstitial design, which combines both theories, manifest in TPC pedagogies? Within TPC, we frequently build our curricula around process-driven composing practices, requiring that students propose topics, outline and brainstorm, submit rough drafts and conduct peer review, and

finalize their writing for final submission—common patterns of composing that directly echo TPC's roots in rhetoric and writing studies (Bay, 2010). Therefore, it is a natural move to more explicitly name this process-driven approach as *interstitial design*, showcasing how TPC instructors are creatively bridging theory and practice through design and adapting traditional genres taught in our classrooms with design tactics.

Consider an instructor that seeks to bring more social justice-focused issues into their TPC classroom in an effort to engage students with the actionable concepts of technical writing and to demonstrate how technical writing can create calls to action. For example, consider a group of Introduction to Technical Writing students researching a local civic issue in order to compose a white paper report on the topic, an assignment that initially tasks students to explore a social justice issue in their local community. Each student will collaboratively define an issue in small teams: lack of access to healthcare resources in their city or underfunded public education sites and redlining in school districts, for example. An assignment would frame this broad task as a social justice communication problem and break down components of the assignment using interstitial design, from empathizing with audiences, defining topic proposals, research activities and reports, drafting and peer review recursive processes, and prototyping and revising toward a final product (see Figure 2.2). Over the course of the collaborative project, students will share their own thought processes and knowledge of the issue as they draft ideas and research together, following steps of the design thinking process and using social design as a launchpad, eventually crafting an agreed-upon association that aims to inform and persuade their audience toward their communicative goals (see Figure 2.2 for a sample assignment sequence).

Note that in Figure 2.2, the ideate/iterate, prototype, and test stages can work as a cycle (as can the entire process), but these steps in particular allow for interstitial considerations from extant TPC scholarship and social design work. It is in teaching contexts such as the one described in this example that interstitial design processes allow for the flexibility of cognitive and critical thinking processes that best address the dynamic communication scenarios and genres we confront in TPC. The interstitial design process can be explicitly shared with students at the outset of an assignment to demonstrate the emphasis on a recursive thinking/ drafting/creating process or can implicitly underpin one's pedagogical approach through classroom engagement and instruction. Yet, I assert one must openly discuss the phases of interstitial design and listen to student feedback about the process, integrating ideas and input into the process along the way. Resistance or uncertainty from students may occur and should be embraced as part of the complex interstitial process, asking students and instructors to explore why resistance emerged and to note the uncertainties as part of the recursive process. It is through such transparent metaprocess conversations that interstitial design strengthens the conceptual phases that encourage one to deliberately interrogate social justice issues closely and carefully.

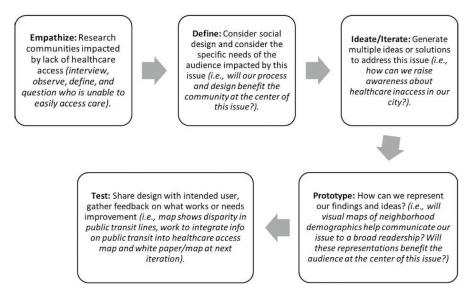


Figure 2.2. A sample interstitial design process, using design thinking and social design, as applied to a traditional technical writing white paper assignment with a social justice issue focus.

### ■ Looking Ahead: Our Charge as Educators and Designers

Over 25 years ago, Jennifer D. Slack, David J. Miller, and Jeffrey Doak identified a pressing need for technical communicators to become more aware of how the manner in which they articulate meaning bears ethical weight upon the audiences consuming the communication they produce, writing:

Most educators acknowledge that it would be a good idea for students to understand politics, power, and ethics, but there is very little explanation offered to suggest what they might do with that knowledge on the job. But one thing is certain: a technical communicator cannot be just a technical writer anymore. (1993, p. 25).

Going back to Resnick, she posits, "How can design educators help students engage in a world that is considerably interconnected and immediate, yet disturbingly more fractured, unstable, and totally disconnected from what really matters?" (2016, p. 12). Resnick raises many of the questions that perplex instructors teaching TPC, wondering how to help students see the applicability and transferability of their classroom work to their communities and daily lives, or challenging students to design communicative materials toward pressing and affective issues. I argue employing interstitial design enables TPC educators to both explore design as an actionable practice within a flexible recursive process in our classrooms and

to interrogate how design can illuminate social justice issues and carry the lesson gained from interstitial design in praxis into TPC's evolving future.

As our field's social justice turn charged each of us with the task of bringing social justice issues more apparently into our pedagogy and research, the time is ideal for our field to begin showing how we can apply our unique design theories, practices, and knowledge to pursuing this call. Technical communicators, in praxis, are by their nature interstitial, occupying multiple intersections of expertise while adapting to the changing needs and expectations of global audiences.

As TPC instructors, we can make interstitial design a part of our curricula and pedagogical practices. I suggest the following practices, a list that is certainly not exhaustive, to bring these practices more apparently into the work we already take on:

- Question core definitions of design along with technical communication: Early in our courses, TPC instructors often ask students to discuss their definitions or approaches to technical communication. I argue we should include "design" with that discussion and query students about their prior knowledge of it, experiences with it, and questions for its application. We must challenge students to explore the public work of design as connected to technical communication and urge students to think about the material impact of design (Holsinger, 2012; Purdy, 2014; Rose et al., 2018; Sánchez, 2017).
- Integrate interdisciplinary design processes into our pedagogies: Turn to industry design sources, case studies, and knowledge articles to complement our academic texts and TPC scholarship. An interdisciplinary, interstitial approach to building design materials will better equip our students to apply interstitial design to their broad career endeavors and enable a dynamic, creative thinking background that enhances TPC's already highly adaptable goals, means, and outcomes (Brown & Wyatt, 2010; Resnick, 2016; Shea, 2012).
- Diversify the texts students read: Include resources from design disciplines in courses from introductory TPC courses to upper-level or major-specific courses. Offer students a range of perspectives from graphic design, industrial design, and design consultancies to offer varying perspectives on how design work is actively applied in dynamic scenarios (Shea, 2012; Williams, 2015).
- Deploy interstitial design processes in core assignments and curricula: Challenge students to use the design thinking process and social design in their brainstorming, conceptual sketching, pre-writing, and drafting stages, and ask them to reflect on how the processes complement their writing processes. For curricula and assignments that are built upon recursive or creative goals, ask students to map their defining moments, empathizing, and prototyping ideas and sketches, or ask students to define how their work can benefit a particular social group.

■ Emphasize collaboration more frequently: As a cognitive process, the collaborative elements of interstitial design urge students to encounter experiences and information previously unfamiliar to them by nature of the recursive process. In our classrooms, structure assignments to more apparently value collaboration in the understanding and defining stages and especially at the prototyping and testing stages where students can learn the most from others' feedback, insights, and perceptions of their design solutions (Purdy, 2014; Redish, 1997)

The TPC classroom is a place for radical design, where we say just as much with plain and simple language as we do with adhering to and bending design principles. Our genre-based assignments that explore documents common to technical communication industry and practice are ideal spaces to engage with social justice issues of audience lived experience. As TPC educators, we owe it to our students and the future of our field to tackle social justice issues in our genre-focused assignments in order to equip our students with the process-based skills to address pressing issues in their lives beyond the classroom. Learning from and continuing to be attuned to the intersections of various design theories can only enhance our pedagogies in the evolving technical communication field and industry.

#### References

Bay, J. (2010). Writing beyond borders: Rethinking the relationship between composition studies and professional writing. *Composition Studies*, 38(2), 29-46.

Brown, T. (2009). Change by design: How design thinking creates new alternatives for business and society. Collins Business.

Brown, T. (2015). IDEO Design Thinking. https://designthinking.ideo.com

Brown, T., & Wyatt, J. (2010). Design thinking for social innovation. *Development Outreach*, 12(1), 29-43.

Cargile Cook, K. (2002). Layered literacies: A theoretical frame for technical communication pedagogy. *Technical Communication Quarterly*, 11(1), 5-29.

Chickering, A. W., & Gamson, Z. W. (1987). Seven principles for good practice in undergraduate education. *American Association for Higher Education Bulletin*, 39(7), 3-7.

Florida, R. L. (2002). The rise of the creative class: And how it's transforming work, leisure, community and everyday life. Basic Books.

Greenwood, A., Lauren, B., Knott, J., & DeVoss, D. N. (2019). Dissensus, resistance, and ideology: Design thinking as a rhetorical methodology. *Journal of Business and Technical Communication*, 33(4), 400-424.

Haas, A. M., & Eble, M. F. (2018). Key theoretical frameworks: Teaching technical communication in the twenty-first century. Utah State University Press.

Henry, J. (2000). Writing workplace cultures: An archaeology of professional writing. Southern Illinois University Press.

Henschel, S., & Melonçon, L. (2014). Of horsemen and layered literacies: Assessment instruments for aligning technical and professional communication undergraduate

- curricula with professional expectations. Programmatic Perspectives, 6(1), 3-26.
- Holsinger, K. (2012). *Teaching justice: Solving social justice problems through university education*. Routledge.
- Institute of Design at Stanford. (n.d.). *The d.school bootcamp bootleg*. https://statici.squarespace.com/static/57c6b79629687fdeo90a0fdd/t/58890239db29d6c-c6c3338f7/1485374014340/METHODCARDS-v3-slim.pdf
- Jones, N. N. (2016). The technical communicator as advocate: Integrating a social justice approach in technical communication. *Journal of Technical Writing and Communication*, 46(3), 342-361.
- Jones, N. N., Moore, K. R., & Walton, R. (2016). Disrupting the past to disrupt the future: An antenarrative of technical communication. *Technical Communication Quarterly*, 25(4), 211-229.
- Kaufer, D. S., & Butler, B. S. (2013). Rhetoric and the arts of design. Routledge.
- Kostelnick, C. (1989). Process paradigms in design and composition: Affinities and directions. *College Composition and Communication*, 40(3), 267-281.
- Madjar, N., Oldham, G. R., & Pratt, M. G. (2002). There's no place like home? The contributions of work and nonwork creativity support to employees' creative performance. *The Academy of Management Journal*, 45(4), 757-67.
- Melonçon, L. (2014). Rhetorical accessibility: At the intersection of technical communication and disability studies. Routledge.
- Nixon, N. W. (Ed.). (2016). Strategic design thinking: Innovation in products, services, experiences, and beyond. Fairchild Books.
- Pink, D. (2005). A whole new mind: Why right brainers will rule the future. Penguin.
- Purdy, J. P. (2014). What can design thinking offer writing studies? *College Composition and Communication*, 65(4), 612-641.
- Redish, J. G. (1997). Understanding people: The relevance of cognitive psychology to technical communication. In K. Staples & C. M. Ornatowski (Eds.), *Foundations for teaching technical communication: Theory, practice, and program design* (pp. 67-84). Greenwood.
- Redish, J. G., & Barnum, C. (2011). Overlap, influence, intertwining: The interplay of UX and technical communication. *Journal of Usability Studies*, 6(3), 90-101.
- Resnick, E. (Ed.). (2016). Developing citizen designers. Bloomsbury Academic.
- Rose, E. J., Edenfield, A., Walton, R., Gonzales, L., McNair, A. S., Zhvotovska, T., Jones, N., Garcia de Mueller, G. I., & Moore, K. (2018, August). Social Justice in UX: Centering marginalized users. In *Proceedings of the 36th ACM International Conference on the Design of Communication* (p. 1-2). ACM.
- Salvo, M. J. (2001). Ethics of engagement: User-centered design and rhetorical methodology. *Technical Communication Quarterly*, 10(3), 273-290.
- Sánchez, F. (2017). The roles of technical communication researchers in design scholarship. *Journal of Technical Writing and Communication*, 47(3), 359–391.
- Schanoes, V. (2004). Critical theory, academia, and interstitiality. *Journal of the Fantastic in the Arts*, 15(3), 243-247.
- Shea, A. (2012). Designing for social change: Strategies for community-based graphic design. Princeton Architectural Press.
- Slack, J. D., Miller, D. J., & Doak, J. (1993). The technical communicator as author: Meaning, power, authority. *Journal of Business and Technical Communication*, 7(1), 12-36.

- Staples, K., & Ornatowski, C. M. (Eds.). (1997). Foundations for teaching technical communication: Theory, practice, and program design. Ablex.
- Walters, S. (2010). Toward an accessible pedagogy: Dis/ability, multimodality, and universal design in the technical communication classroom. *Technical Communication Quarterly*, 19(4), 427-454.
- Williams, R. (2015). The non-designer's design book: Design and typographic principles for the visual novice. Pearson Education.