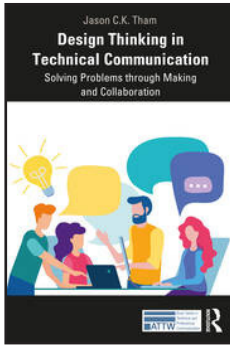


Book Review Editor

Russell Kirkscey, *Penn State Harrisburg*



Design Thinking in Technical Communication: Solving Problems Through Making and Collaboration

Jason Tham

New York

Taylor & Francis
2021, 168 pp.

Reviewed by Bhushan Aryal

Delaware State University

The questions of how to make technical communication socially more responsive, bridge the academy-industry gaps and enhance the immersive active learning process have guided scholars in the field to find innovative ways to transform technical communication praxis. In this connection, Jason C. K. Tham's *Design Thinking in Technical Communication: Solving Problems Through Making and Collaboration* (2021) is a significant contribution as it asks technical communication stakeholders to be intentionally innovative to meet the challenges of the time and to be more imaginative in the possibilities afforded by the field. Tham shows where the field is in general and where it can or should be if it takes a more deliberate design-centric approach by placing social justice and users at its core. Written in accessible prose and peppered with personal anecdotes, the book is an engaging read that not only puts readers at the center of technical communication theories and practices but also is rich in the number of references it makes within the field as well as its interdisciplinary connections. Organized into

five chapters and a conclusion, the book advocates for the design thinking approach and argues that using physical makerspaces in designing technical communication courses can change the outcomes significantly to promote radical collaboration, active learning, and social justice. If someone were to use three key phrases to describe the book, they would be “design thinking,” “material immersion for effective pedagogy,” and “radical collaboration for social justice.”

Chapter 1: “Introducing Design Thinking (and Making) for Technical Communication” draws on the rich history of design thinking literature and develops a theoretical foundation for “the design (Thinking) Turn” for technical communication in particular and the writing studies field in general. Tham locates the origin of design thinking in multiple disciplines but emphasizes the design science and the Scandinavian co-design models of the 1950s and 1960s that many American universities have later adopted in varied forms for their different purposes. Characterizing it as “constructivist-constructionist” in nature, Tham defines design thinking as “pedagogical efforts” in “creating opportunities that let students attempt to solve [complex] problems” (p. 18). When connected with the current DIY culture and the “Makers Movement,” the efforts can help students “solve technical communication problems through direct experience with tangible materials” (p. 17). Tham thinks that this move toward “the design and making turn” perfectly aligns with the other developments within writing studies, such as the current focus on multimodality.

Chapter 2 focuses on the ethnographic study of three makerspaces at the University of Minnesota-Twin Cities, Georgia Institute of Technology, and Case Western Reserve University, providing in detail their setup, the general workflow and processes, and the experience of administrators and participants in running the programs. Tham observes these makerspaces closely, interviews stakeholders, and discusses the activities in these labs in connection with technical communication’s focus on user-center orientation and problem solving. In the process, he demonstrates how the “design-centric and material thinking” approach can go beyond the mere discussion of tools and shows how such an approach can connect technical communication pedagogy with the wider DIY Makers Movement (p. 27). Located at universities, the makerspaces discussed in this chapter are industrial in nature in the sense that they resemble miniature manufacturing plants in their structures. For Tham, they are material manifestations of how the academy-industry gaps can be bridged by designing college courses into collaborative projects that can reflect workplace collaboration that directly involves “making” things.

Chapter 3 connects design thinking with social justice and social innovation. Using interviews with industry practitioners, Tham highlights how technical communication is commonly understood in terms of “technical” and “effective communication” and how technical communicators’ work is equally engaged in “user advocacy and social issues” (p. 75). The design thinking paradigm, he argues, can help technical communicators to be more intentional in their efforts for social justice and can lead them to “pursue leadership in social advocacy” (p. 75). Undoubtedly, pedagogical implications are imbedded throughout the book, particularly with the inclusion of learning activities at the end of each chapter.

However, Chapter 4 primarily focuses on pedagogy as it presents a case study of a service-oriented technical communication class, where the instructor uses “design and making thinking” and “social advocacy” to design the class, and students engage in active learning, making, and collaboration to learn “design thinking” for solving complex human problems. When designing the team projects, students are asked to be deliberate in their goals and to “empathize with users & stakeholders, define scope of projects, ideate radical solutions, create prototypes, test prototypes, iterate designs, [and] present or implement solutions” (p. 83). By discussing the course, Tham shows how being intentional about design thinking and social advocacy can be combined with traditional technical communication pedagogy to create an engaged collaborative learning experience.

Chapter 5 takes the issue of collaboration in technical communication as its focus and discusses how technical communication is by nature a collaborative enterprise. Building on this foundation, Tham goes further and advocates for “radical collaboration,” which he defines as a more deliberate process that “seeks to flatten power structures with the goal to harness collective creativity in addition to individual expertise” and that “includes a diverse team” with “differing perspectives and ideas” that are open to “imaginative solutions” (p. 103). The chapter highlights the process strategies for such radical collaborations, demonstrates why being “radical” is needed to achieve social justice goals, and advises how “design thinking” assists to be deliberate about it. The concluding chapter brings the “advocacy” part of the author in full force, asking technical communication program designers, faculty, and industry practitioners “to create waves and cultivate change” (p. 121) so that they can shake up the field by practicing “productive disruption” led by the systematic methodologies of design thinking, critical making, and social advocacy.

While the book primarily focuses on individual courses, it also offers ideas to re-envision technical writing and professional communication programs by using design thinking and making approaches. Such programmatic revisioning can aim at a radical interdisciplinary or even transdisciplinary collaboration so that colleges and universities could create the physical makerspaces combining technical communication instruction with science and engineering. Undoubtedly, such a material infrastructure and the knowledge-work required to run that physical structure would demand resources (and may require academy and industry collaboration), but what Tham visualizes is an innovative praxis that asks technical communication program administrators and instructors to think of teaching as an immersive, learning-by-doing activity, which he advocates can be accomplished by using design thinking and makerspaces. In doing so, instructors can help students learn to solve knotty technical communication problems that include as much technical know-how as students should be aware of user-centered perspectives and social justice orientation.

Author Information

Bhushan Aryal is an Assistant Professor of English and Director of Composition and Speech Program at Delaware State University. He develops and teaches first-year writing as well as upper-division courses in digital writing, advanced composition, and professional and technical writing. His research interests converse at the intersection of HBCU composition programs, digital and technical writing, and South Asian rhetoric.