

Lean Technical Communication

Toward Sustainable Program
Innovation

**Meredith A. Johnson,
W. Michele Simmons and
Patricia Sullivan**



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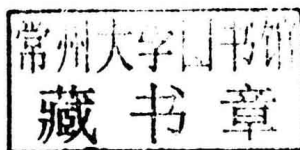
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LEAN TECHNICAL COMMUNICATION

Lean Technical Communication: Toward Sustainable Program Innovation offers a theoretically and empirically grounded model for growing and stewarding professional and technical communication programs under diverse conditions. Through case studies of disruptive innovations, this book presents a forward-looking, sustainable vision of program administration that negotiates short-term resource deficits with long-term resilience. It illustrates how to meet many of the newest challenges facing technical communication programs, such as building and maintaining change with limited resources, economic shortfalls, technology deficits, and expanding/reimagining the role of our programs in the 21st century university. Its insights benefit those involved in the development of undergraduate and graduate programs, including majors, service courses, minors, specializations, and certificates.

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For Nate, Josh, and Peter

PREFACE

In this book we advocate for sustainable techniques and technologies for lean technical communication program administration. We provide a model for doing that work—anchored in theoretical discussions and empirical observations—that has practical implications for administrators. Our insights benefit diverse undergraduate and graduate programs, including majors, service courses, minors, certificates, and internships working under all sorts of conditions. Lean technical communication programs are resilient, yes, but they can do more than recover from adversity. Lean programs share attributes which we will expand on throughout our book:

- Lean programs are innovative and disruptive. And they don't wait until conditions are ideal to break new ground.
- Lean programs are responsive to the situated needs of those they serve.
- Lean programs are attuned to the priorities of the institutions in which they operate. Further, they can deploy rhetorical strategies to cement or challenge those priorities.
- Lean programs are sustainable. They regulate cost and mitigate environmental impact through deft deployments of resources, especially communications technologies.
- Lean programs are strategic in their mobilizations of space and discourse both online and off.

These characterizations are elaborated upon in examinations of actual disruptive innovations on campuses and at work.

In Chapter 1, we attend to the key terms and phrases that circulate throughout our model of program work, situating them in fields including organizational

studies, management, engineering, sustainable development, environmental studies, and (of course) technical communication. We distinguish our own construction “lean” that prioritizes disruption, resilience, sustainability, and innovation. “Disruption,” a concept that has found great traction in entrepreneurial literature, is examined for its relevance to lean program work. While “resilience” and “sustainability” are often used interchangeably in technical communication, we parse each in turn to better seize upon their transformative potential. We describe our approach to “innovation” as a staged process that can help programs avoid crisis-inspired preservation mode. After introducing this vocabulary for talking about our model, Chapter 1 concludes with a preview of the book’s two major sections: a presentation of our approach to program work and the philosophies that undergird it (Chapters 1, 2, and 3), and real-world cases that put it to work (Chapters 4, 5, and 6).

In Chapter 2, we outline seven essential “tenets” that define our model of lean technical communication. Chapter 3 establishes pathways for building and maintaining lean change via boundary work and stewardship, pathways that we return to in subsequent cases. With its pieces all in place, Chapters 4, 5, and 6 illustrate its application. This model can be used to address such challenges as:

- *Building and maintaining change.* When resources are stretched, change can be especially daunting. Chapter 3, for example, models potential programmatic responses to pressures to expand enrollments despite shrinking resources and faculty reluctant to change.
- *Funding.* State funding for public higher education has been slow to increase after 2012’s historic 7.9% dip, the largest drop in over 50 years (Wexler 2016). Performance Based Funding continues to gain momentum (McLendon and Hearn 2013). Chapter 4 demonstrates how flexing classificatory schema and standards related to budgetary models can boost programmatic visibility and provide grounds to advocate for needed resources.
- *Technology deficits.* Even with 72% of U.S. adults owning smartphones, programs still need IT resources (Poushter 2016). Challenging accepted notions of performance and efficiency, Chapter 5 considers how green energy initiatives might shore up programs’ computer classrooms via leaner power management protocols and e-waste.
- *Expanding/reimagining the role of technical communication programs.* Growing technical communication programs requires the study of more types of people, machines, and activities. It also brings the possibility of new roles for programs to fill in their institutions and communities. Chapter 6, for example, explores the obligations programs have to communicate about environmental sustainability with the public.

Chapter 7 ties the cases together as we look towards crafting a more sustainable future for technical communication programs.

We are not alone in attempting to understand and articulate the complexities of technical communication program work. Our approach here is compelling, though, for its differences. There's no paucity of scholarship that grapples with writing program administration, but existing work addresses first-year composition programs almost exclusively (see Welch and Scott 2016, for example). Others have also attempted to extend the reach of this work to encompass professional and technical communication. The Council for Programs in Technical and Scientific Communication has begun *Programmatic Perspectives*, a peer-reviewed journal, to address technical communication program issues directly, but the length of journal articles understandably limits the scope of discussions. Only a few whole book treatments have directly addressed technical communication program development and innovation. Often they have posed one of technical communication's "Big Questions" and gathered a range of answers from well-respected program directors. How, for example, might program administrators develop systematic methods for responding to current institutional trends, such as internships (Sides and Mrvica 2007), intercultural communication (St. Amant and Sapienza 2011), assessment (Hundleby and Allen 2010), content management (Pullman and Gu 2009), and academic–industry partnerships (Bridgeford and St. Amant 2015)? This approach is one method for shaping the future of the profession. Zeroing in on especially pressing concerns for technical communication can occlude other programmatic concerns and may encourage a reactive stance.

There are three edited collections explicitly devoted to technical communication program work: *Sharing Our Intellectual Traces: Narrative Reflections from Administrators of Professional, Technical, and Scientific Communication Programs* (Bridgeford, Saari Kitalong, and Williamson 2014); *Design Discourse: Composing and Revising Programs in Professional and Technical Writing* (Franke, Reid, and DiRenzo 2010); and *The New Normal: Pressures on Technical Communication Programs in the Age of Austerity* (Tillery and Nagelhout 2015). These collections have documented program profiles and best practices at particular schools: introducing an interdisciplinary Technical/Professional Communications minor at Shippensburg University (Kungl and Dev Hathaway 2010), the viability of professional writing programs at small teaching institutions like Ohio Northern University (Pitts 2010), protecting the work–life balance of part-time instructors at the University of Nevada, Las Vegas (Nagelhout, Tillery, and Staggers 2015), and aligning with a broader community health education initiative at University of Wisconsin at Stevens Point (Ludwig 2015), for example. This approach resonates with our understanding of rhetoric as situated problem solving, and we also look to our own programs, universities, and communities to ground our cases. This book is different, though, in that each case explores a different facet of the model. The edited collection format invites a diversity of approaches to program work. These contributions don't necessarily cohere into a unified approach to program development, whereas *Lean Technical Communication* does.

A large proportion of the edited collections, most notably Franke, Reid, and DiRenzo's (2010) *Design Discourse: Composing and Revising Programs in Professional and Technical Writing*, have examined the location of professional and technical communication in relation to other academic units (Ashe and Reilly 2010; Lipson 2010), including subdisciplines in English studies (Henze, Sharer, and Tovey 2010), two-year colleges (Raju 2014), private colleges (Yonker and Zerbe 2015), the humanities (DiRenzo 2010), and engineering (Ballentine 2010; Ford 2014; Parker 2010). Our perspective is also very contextually aware without being too vast in its scope (e.g., seeking to change the entire university structure or the National Education Association). While we don't see our book as a nudge for new education policy at a national level (see here the *MacArthur Foundation Reports* released through MIT's Digital Media and Learning Series—e.g., Davidson, Goldberg, and Jones' (2010) *The Future of Thinking*), we do consider the reformation of administrative practice as one means to impact the institutions in which programs operate.

As this book unfolds, we connect several odd couples (i.e., previously unconnected or even seemingly at odds concepts and approaches) in order to make space for lean program work. First, we link *programmatic innovation* and *frugality* (without admitting we are cheap). It has been made clear by the management literature that disruptive innovation can spring from an expectation that a fresh approach (or newly imagined problem space) can transform limited economic resources in ways that stimulate growth—in our case programmatic growth. Second, we pair *sustainability* and *cost savings*. Although sustainable commodities might at first blush be classified as among the most expensive products (e.g., quick “ramp up” turbines or solar panels), we argue that it is worth pondering how they might also be characterized in imaginative ways (e.g., by figuring in the cost of maintenance) to demonstrably deliver the cost savings universities desire/require.

Our third odd coupling is of *lean media* and *program communication*. Lean media is our term for web-based, *gratis* or low-cost software and/or hardware that often (but not always) depends on social interaction to function properly. Lean media not only adjust lines of communication, they yield new knowledge projects even as they allow us to reach populations whose needs challenge our talents. Technical communication has engaged with social media, arguably lean media's most impactful iteration, as it influences employees, students, and teachers. It has also engaged with lean technologies for delivering curriculum (Faris and Selber 2013). What has been underexplored is the potential for lean media to support and extend program work. Notable exceptions include Lam, Hannah, and Friess's (2016) research on using Twitter data to inform assessment and other programmatic concerns. Pondering the communication channels lean media affords in tandem with programmatic needs can contribute to the innovation a program builds and hopefully sustains. Further, lean media is not limited to social media or online applications or software in general; it also

includes the hardware that runs these applications students bring with them to campus.

A fourth rare coupling is of *sustainable programmatic work* and *diversity*. Diversity is a growth area for most technical communication programs; in fact, investment in diversity can dramatically increase a program's sustainability by bringing new client classes, new student populations, and even new classes of technologies (e.g., gaming) into the technical communication family. For the past 30 years technical communication has depended on the explosive expansion of technology to motor its growth, and while mobile technology adds a new arena for programs, diversity—both local and global—is a partner that requires few resources to sustain.

Who is this book for? We write for those audiences involved in the development of professional and technical communication undergraduate and graduate programs in the United States. This includes 205 undergraduate programs that offer a degree or specialization in professional and technical communication, roughly 157 undergraduate minors, 70 undergraduate certificates, 51 graduate certificates, 102 MA or MS degree programs, and 34 Ph.D. programs where doctoral students specialize in professional and technical communication (Lisa Meloncon, pers. comm., 2017). Though our model focuses on technical communication in particular, compositionists may also find the ideas applicable because most writing majors include technology-rich workplace writing. Those building English minors or certificates may be interested, as such minors often offer internships, web writing, and publishing courses to attract more students to English studies. In addition, *Lean Technical Communication* is likely of interest to:

1. Graduate students seeking employment that requires them to develop curricula for existing or planned programs. Job openings in technical communication are often for starting or expanding programs yet students are rarely taught how to innovate in this scenario. Since employers often hire to expand their current programs/departments, potential employees who can talk knowledgeably about the components of program design are prized.
2. E-learning product developers who are looking to better understand their consumers.
3. Academics building online degree programs who encounter various populations and configurations of hardware/software.
4. Human resource specialists in corporate training who need to cut budgets while maintaining the integrity of learning.
5. Recently minted Ph.D.s transitioning from technology-rich R1 universities to their first academic appointments at smaller campuses with different technological and material arrangements.
6. Scholars theorizing rhetoric and technology or writing program administration who might need to connect their research to program work.

The ultimate aim of *Lean Technical Communication* is one that all of these audiences can relate to: building and stewarding better writing programs. We are going to articulate a vision of program work that is, unsurprisingly, rhetorical. Lean programs respond to their constituencies and contexts with sensitivity and recognize the potential for communicative practices to solve practical problems. What may be surprising (though we hope not) is the optimism that animates this work. It springs from our belief that programs can innovate sustainability—even under seemingly dire circumstances—and that now is the right time to do that work.