Introduction

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Even if any given terminology is a reflection of reality, by its very nature as a terminology it must be a selection of reality; and to this extent it must function also as a deflection of reality.

— Kenneth Burke, “Terministic Screens”

In 1966, the Society of Technical Writers and Publishers, Inc. (STWP) and the Carnegie Library of Pittsburgh published An Annotated Bibliography on Technical Writing, Editing, Graphics and Publishing: 1950 to 1965. This “aid to those with a general interest in technical writing” and “guide to those seeking specific information” (Philler et al., 1966, p. i) provides a remarkable snapshot of technical writing as a field in the middle of the 20th century. Its thousands of annotations, representing hundreds of scholarly and trade publications, cover pieces on issues unique to the period (e.g., “Soviet Scientific and Technical Propaganda”) as well as issues we continue to grapple with today (e.g., “What is Technical Writing?”).

To organize their 2,000 annotations, the editors used the “aid of a computer” to create a permuted title index—an indexing strategy that sorts works by key terms within their titles instead of purely alphabetically. The resulting list presents scannable clusters of related works (see Figure 1). We introduce the example of this bibliography and its information management strategies to highlight two points.

First, the key terms of the field we now call technical and professional communication (TPC) have a rich history that is worth both documenting and updating. The 1966 bibliography (covering 2,000 works published from 1950 to 1965) and a 1983 sequel (Carlson et al., 1983), which covers 2,700 works published from 1966 to 1980, provide synoptic views of the terms that mattered to the profession during this key thirty-year span. Genre types (e.g., manual, report, proposal) and key contexts (e.g., business, engineering) are among the most frequently indexed terms of both volumes. But even less frequent terms can tell us something about the development of the field and its concepts. For example, forms of the word rhetoric appear only five times in the 1966 bibliography but 45 times in the 1983 bibliography, which suggests the increasing importance of rhetoric as a framing concept for the field. Keywords related to gender are almost nonexistent in the 1966 bibliography—just one indexed work recommending technical communication as a good career path for women chemistry majors. By 1980, instances of terms indexing works on gender representation, equity, and discrimination (e.g.,
sexism and phrases including women), though not abundant, were at least present (e.g., the cluster of titles including women and women’s liberation in Figure 2).

Furthermore, considering the terms that these index pages do not include is also instructive. For example, although we know from historical research that people of diverse backgrounds worked as technical communicators during this period (see Malone, this volume), that diversity is not reflected in the bibliographies’ key terms. Only one work in the 1980 bibliography (and no works in the 1966 volume) was sorted by a keyword related to race and technical communication—a 1975 presentation titled “Language Engineering for Black Managers.”

Thus, like all attempts to provide a synoptic view of a field, these indexes function as what Kenneth Burke (1966) called “terministic screens.” They simultaneously reflect some aspects of reality while deflecting others.

Although the rise of electronic bibliographic databases has made book-length bibliographies largely obsolete, other synoptic works can serve as similar terminological markers for the field of TPC. For example, the contents and alternate table of contents describing the works anthologized in Johndan Johnson-Eilola and Stuart A. Selber’s (2004) Central Works in Technical Communication provide a snapshot of terms central to the academic discipline of technical communication as it flourished and evolved in the 1980s, 1990s, and early 2000s: history, theory, ethics, power, pedagogy, collaboration, genre, gender, visual, usability, etc. As we approach the twenty-year anniversary of that important anthology, it is time to revisit those central concepts and to consider other emergent terms.

Recent large-scale analyses of TPC publications have begun to do that work. For example, Ryan Boettger and Erin Friess (2020) conducted a content analysis of 672 articles published in technical communication journals between 1996 and 2017 to identify content and authorship patterns. Most relevant for our work, they coded each article with a “primary topic” content category. The fifteen core conceptual categories they identified—assessment, collaboration, communication strategies, comprehension, design, diversity, editing and style, genre, professionalization, knowledge and information management, pedagogy, research design, rhetoric, technology, and usability and user experience—overlap with many of the terms we identified as central concerns through our own content analysis of article abstracts and keywords.

More recently, Stephen Carradini’s (2021) corpus analysis of 1,593 TPC abstracts examined word frequencies to identify shifts in technical communication research topics between 2000 and 2017. These include a shift in focus from print communication to digital communication, expanding boundaries of the technical communication field, and affirming its core identity. Key terms that emerged from Carradini’s study included both well-established central concepts—such as ethics and rhetoric—as well as more recently emergent but nonetheless central TPC terms—such as content management, social justice, user experience, and social media. Unsurprisingly, our analysis identified similar terms, but the goal of our project is to move from identification of central terms (both old and new) to documentation of their multiple, nuanced, and sometimes contested uses.
Figure 1. The first page of the permuted title index in An Annotated Bibliography on Technical Writing, Editing, Graphics and Publishing: 1950 to 1966. Frequently repeated terms on this page include forms of the words abbreviations, abstracts, and administration.
Figure 2. An index page from An Annotated Bibliography on Technical Writing, Editing, Graphics and Publishing: 1965 to 1980 (Carlson et al., 1983). Frequently repeated terms on this page include Wiswesser line notation, women, and word processing. Incongruously, the same index page listing works on serious issues faced by women in technical communication also
includes an overtly sexist title about the potential adoption of the metric system in the United States: “Will American Girls Wear Size 90 Bikinis in 1975?”

The second point we want to make by introducing examples from earlier bibliographies is to highlight the practical and methodological problems of organizing and accessing the keywords of a field like TPC. As Figure 1 demonstrates, the permuted title index is both helpful and problematic as an information management strategy. Through repetition, one gets a sense of some of the important terms (e.g., abstracts, advertising). However, as the example shows, such indexes can also be muddled by repeated terms that are not all that key. For example, ABC is treated as a keyword when it is a mere stylistic flourish deployed in more than one title. In other cases, the same term might be used in multiple ways; for example, the permutations of program lists computer programs, organizational initiatives, and academic programs interchangeably in the same section of the index. In still other cases, important terms might be represented but not necessarily be “key” terms with broad appeal. For example, works on Wiswesser line notation (one of the key terms in Figure 2) would have only been relevant for technical writers working with technical chemistry texts. Finally, the permuted title index (like any other term-based search strategy) is an insider’s tool that is most useful when an information seeker knows which terms to search, whereas newcomers to a discipline often need guidance for understanding both the concepts and the complexities represented by key terms. Part of entering a field involves learning which terms matter and how those terms are used.

This volume, Keywords in Technical and Professional Communication, attempts to address both the need to document the evolving terminological complexity of TPC and the needs of newcomers unfamiliar with its key terms, though we use a different genre than the bibliography or anthology to do so—the keyword essay collection. The remainder of this introductory chapter explains the history and purpose of this genre, describes why we felt the 21st-century discipline of TPC needed a keyword essay collection, and documents how we, as editors, selected keywords and contributing authors for this volume.

What Is a Keyword Essay Collection?

Why Does TPC Need One?

The keyword essay collection has emerged as a unique academic genre composed of short essays that discuss the multiple and sometimes conflicting uses of words central to a discipline. Examples include Keywords for American Cultural Studies (Burgett & Hendler, 2014), Keywords in Writing Studies (Heilker & Vandenberg, 2015), and Keywords for Latina/o Studies (Vargas et al., 2017). These and other keyword collections owe their origin to Keywords: A Vocabulary of Culture and Society, the first keyword collection, which was first published in 1976 by British cultural studies scholar Raymond Williams. In the introduction
to that book, Williams recounts the personal motivation behind the book, which is worth quoting at length:

In 1945, after the ending of the wars with Germany and Japan, I was released from the Army to return to Cambridge. University term had already begun, and many relationships and groups had been formed. It was in any case strange to travel from an artillery regiment on the Kiel Canal to a Cambridge college. I had been away only four and a half years, but in the movements of war had lost touch with all my university friends. Then, after many strange days, I met a man I had worked with in the first year of the war, when the formations of the 1930s, though under pressure, were still active. He too had just come out of the Army. We talked eagerly, but not about the past. We were too much preoccupied with this new and strange world around us. Then we both said, in effect simultaneously: ‘the fact is, they just don’t speak the same language.’ (Williams, 1976/1983, p. 11)

After a mere four and a half years, people were no longer speaking the same language, which frustrated and intrigued Williams. The word culture, for example, took on shifting and nebulous meanings: Previously, it was used in teashops and similar places to denote social superiority or in artistic circles to refer to writing poems, working in theaters, and other expressive activities. Four years later, it was used to describe both the formation of values in the study of literature and a particular way of life, like “American culture” (Williams, 1976/1983). In an effort to help himself (and others) grapple with these shifting vocabularies, Williams started to collect what he later called keywords and to write short essays to document the genealogies of their usage. With each word, Williams covers centuries of evolving, divergent, and sometimes contested meanings, replete with specific examples and contexts. His approach has been replicated by numerous other authors and editors, and indeed a WorldCat search for “keywords in” and “keywords for” returns dozens of titles published since 2000 alone. However, despite its disciplinary history and terminological traditions, our field of TPC does not have its own keywords collection attending to its unique disciplinary context.

Williams’ Keywords and many of its contemporary successors are situated in the disciplinary fields of literary and cultural studies. In fields more closely related to TPC, two collections have been published by the same editors: Keywords in Composition Studies (Heilker & Vandenberg, 1996) and Keywords in Writing Studies (Heilker & Vandenberg, 2015). These are two excellent collections delineating issues related to writing and composing, but they do not reflect the precise interests of TPC—a field with links to academia and industry, to the sciences as well as the humanities.

Keywords in Composition Studies has its “focus on the academic text, the writing student, and the classroom” (Heilker & Vandenberg, 2015, p. xii), a focus reflected by keyword choices such as academic discourse, basic writing, and freshman English. This focus diverges from TPC’s interests in the workplace and in non-academic
communication contexts. *Keywords in Writing Studies* is Paul Heilker and Peter Vandenberg’s response to the changing nature of composition studies. As they acknowledged, the 1980s’ social turn and the late 1990s’ public turn forcefully demonstrated that “writing in universities is only a small slice of writing that goes on elsewhere in the world” (Bazerman, qtd. in Heilker & Vandenberg, 2015, p. xii). During these changes, classroom writings interacted with social practices, linguistic and cultural differences became central concerns, and methodological and theoretical approaches were increasingly plural (Heilker & Vandenberg, 2015). *Keywords in Writing Studies* captures these changes and shifts, as reflected in keyword choices such as citizen, identity, and multilingual/ism. Most interesting to us among the new keyword essays is “Technical Communication,” which was authored by Carolyn Rude (2015).

In her essay, Rude skillfully introduced technical communication’s history, major genres, key organizations, practices, curricular programs, and research domains. Each of these is a shifting landscape of convergences and contentions, but in the limited space of a single short essay, complexities had to be excluded, flattened, or rapidly glossed over. As we reviewed this informative essay, we could not help but think that the field of TPC needed not just one essay but its own keyword collection.

Now, it is not our intention here to define or redefine “TPC” vis-à-vis “writing studies.” We merely hope to demonstrate that the field of TPC has considerable depth, width, complexities, and nebulousness on/in its own terms. Given decades of development and processes of professionalization, it has accumulated its own share of thorny keywords that are well worth documenting and unpacking.

Like other keyword essays, the essays in this volume are studies of words that “are ritually invoked or provocatively redefined,” words that “anchor course titles, cue manuscript reviewers, situate *curricula vitae*, ping research–alert notifications, and tag conference panels” (Dryer, 2019, p. 214). In pithy essays, the origins of these words are examined, examples of usages are offered, and multiple and conflicting meanings are acknowledged.

It is also important to note that essays in this collection are not comparable to dictionary entries. Dictionaries attempt to close down, to fix the meanings of words and offer agreed-upon, clear, and consistent definitions. Keyword essays attempt to open up the meanings of words, to emphasize that meanings are always in flux, and to celebrate the different (but also overlapping) meanings of words as they are used in varied social, cultural, and disciplinary circles. As Heilker and Vandenberg (1996) put it, clear and consistent definitions are often “secured not by a sacred illumination, but through a process of forgetting, neglecting, denying” (p. 2). The alternative, and more productive and promising, approach, is to “listen openly, generously, and carefully” to a word’s “many, layered voices, echoes, and overtones, especially the dissonant ones” (Heilker & Vandenberg, 2015, p. xvi). We are aware that the very attempt to portray these varied voices runs the risks of valuing some voices and devaluing others, but, as in any reflective attempt, we must start somewhere.

Like previous keyword books, our collection features an eclectic, carefully selected list of terms. In previous books, writers and editors often relied on their tacit
knowledge of a discipline to arrive at their lists. Raymond Williams (1976/1983), for example, selected words that, as he put it, virtually forced themselves on his attention because the problems of their meaning were bound up with the problems they were used to discuss (p. 15). Bruce Burgett and Glenn Hendler (2014), editors of *Keywords for American Cultural Studies*, selected words whose meanings and debates are central to shaping the study of culture and society. Heilker and Vandenberg (2015) used two overarching impressions to select words for *Keywords in Writing Studies*: words that are part of their disciplinary parlance and words that are highly contested.

For our collection, we employed a more formalized, data-driven process to arrive at our list—a process that seemed to us more in keeping with the rigorous but eclectic methods and methodologies of TPC. We began by conducting a corpus analysis to identify words that are frequently used in field publications, and we followed that analysis with a survey that crowdsourced input from field professionals (details below in “Our Methods”). To borrow from Dylan Dryer (2019), doing so allows us to combine the quantitative account of a discipline, something that is “broad and flat,” with the impressionistic account, something that is “deep and narrow” (p. 215).

However, we do not pretend that our process is disinterested or impartial, as we elaborate in “Our Methods.” Indeed, as we made sense of our data, we did not proceed purely statistically but also interpretively, drawing upon our knowledge developed as members of the discipline. Some terms were relabeled, broadened, or narrowed. For example, the term *markup language* was replaced with *structure*—a term that can cover issues related to markup languages as well as other issues related to the material presentation of information across technologies. As we made decisions, we also considered both the field’s history and emerging trends because we envision a future-oriented collection, a collection that not only captures words that are and have been frequently used in the discipline but also words that will be or should be.

Our ultimate decisions on what to include and exclude are fraught with problems (how can they not be given our necessarily localized and partial positionalities), and our readers may well disagree with those decisions. Indeed, the results of our survey already hinted at diverse opinions, with some participants believing, for example, that terms such as *feminism* are not unique/central to technical communication, while others applauded its inclusion and advocated for more counter-hegemonic terms.

Precisely because of these disagreements and partialities, we hope that this collection will be followed up with later efforts to document new keywords. Raymond Williams (1976/1983) intentionally included blank pages in his keyword book to signify that “the inquiry remains open” and that he “will welcome all amendments, corrections and additions” (p. 26). While we do not have blank pages in this collection, we share the same sentiment. Echoing Burgett and Hendler, editors of *Keywords for American Cultural Studies*, we invite readers “to revise, reject, and respond to the essays that do—and do not—appear in this publication, to create new clusters of meaning among them, and to develop deeper and richer discussions of what a given term does and can mean when used in specific local and global contexts” (2014, p. 5).
Our Methods

We used a two-phase process to arrive at the keywords included in this collection. In Phase 1, we conducted a corpus analysis of peer-reviewed journals in the field. This phase included two sub-phases: In Phase 1.1, article abstracts were analyzed using word clouds, which was itself a multi-step process; in Phase 1.2, journal- and author-provided keywords were analyzed using Microsoft Excel. In Phase 2, we surveyed TPC faculty, graduate students, and practitioners for their perspectives to help support and validate our Phase 1 findings. These phases and steps are summarized in Figure 3 and detailed in the following sections.

Figure 3. An overview of our methods for selecting the keywords for this collection.

Phase 1.1. Use Word Clouds to Extract Keywords from Article Abstracts

Word clouds, also known as text clouds or tag clouds, are visual representations of textual data. Started as web-based visualizations of keywords (or “tags”) that categorize user-contributed online content, word clouds are now used as a general tool to mine source texts (Steinbock et al., 2007). Using visual attributes such as colors and font sizes, word clouds highlight terms that are most frequently used in a source text, giving readers an immediate summary of the text’s topics and an impression of its key concerns. Notably, Richard Selfe and Cynthia Selfe (2013) advocated using word clouds as a heuristic to define technical communication’s
boundaries, artifacts, and identities. Given word clouds’ ability to offer high-level, word/phrase-based summaries of data, they are well suited for our purpose to identify TPC keywords. Drawing upon Selfe and Selfe’s heuristic, we used a five-step process to create word clouds.

**Step 1. Identify rhetorical context**

At this stage, we considered the purpose, audience, and content of our word clouds. These considerations guided the subsequent steps, allowing us to focus the word clouds for their intended use context. Our purpose in creating word clouds is to find enduring and emerging keywords in TPC research, education, and practice. The keywords that emerge from the word clouds will be examined in short essays, which are intended for all TPC scholars, educators, students, and practitioners. These essays may be especially valuable to newcomers to TPC by orienting them to the focus of the field and by distilling complex key concepts.

**Step 2. Identify source data appropriate for the rhetorical context**

Journal publications are an important indicator of the changing focuses and concerns of a disciplinary field and, as such, represent promising source data. Given our rhetorical contexts, we included in our corpus journals that have a considerable publication history and influence and that, collectively, emphasize all aspects of the field—from original research to pedagogical studies to industry practices. With these considerations, five journals were included; by alphabetical order, they are *IEEE Transactions on Professional Communication, Journal of Business and Technical Communication, Journal of Technical Writing and Communication, Technical Communication,* and *Technical Communication Quarterly.* Our journal choices coincided with those of recent field-mapping publications (Boettger & Friess, 2020; Carradini, 2021), which we learned after finishing our selection process.

Given our purpose, we needed to trace a historical trajectory of the field but also focus on the more recent and emerging developments. Given these considerations, we decided to include ten years of publications (2009-2019) from the five journals. The full texts of all these publications, however, would be a data set too unwieldy for word cloud generators and subsequent analyses. Drawing upon Selfe and Selfe (2013), we narrowed the scope of our analysis to the abstracts of the published articles—summaries meant to capture the essence of the articles. With this decision, we then exported all available abstracts from the identified journals and publication range from the Scopus database.¹

¹ At the time of our study, *Technical Communication* did not have its 2019 publications available in our subscribed databases, so for this journal, data from 2009-2018 were included.
We recognize that, besides journals, other possible corpora exist, notably, technical communication job advertisements, which can illuminate the core competencies required of industry technical communication practitioners (see, e.g., Brumberger & Lauer, 2015). We decided not to use these source texts for several reasons. First, our project does not have the narrower purpose of preparing students for the workplace but the broader purpose of orienting newcomers to the history, disciplinary concerns, and identity of TPC. Job advertisements are less capable of reaching this broader purpose. Second, while practitioners are part of our intended audience, we do not envision them using this work to assist their day-to-day, on-the-job practices. Rather, we envision them encountering this work in an academic context as students, precisely the spaces where academic approaches can illuminate the changes, tensions, and issues underlying pragmatic industry practices. Finally, there already exists a practitioner-oriented glossary book (The Language of Technical Communication, edited by Ray Gallon, 2016), which offers extended definitions of specific terms such as eBook, HTML5, and XML processors, in addition to many of the terms our authors cover, such as accessibility, user experience, and project management (see Figure 4).

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**Figure 4. Keywords as connections between theory and practice, academy and industry.** The left box lists categories used by Johnson–Eilola and Selber to organize the academic essays in Central Works in Technical Communication, with the categories from the “Alternative Contents” listed below the dashed line. The right box includes the terms and section categories in Gallon’s The Language of Technical Communication, an elaborated glossary for TPC practitioners. The middle box lists our keywords as they are sorted in the “Thematically Organized Contents.” We envision these terms as bridging the concerns of TPC as an academic discipline and as a field of practice.
It is worth noting that Gallon's practitioner-focused terms cross-articulate with the keywords of our collection in different ways. For example, Gallon's authors engage concepts our authors cover (such as *multimodality*) through specific instances or sub-terms (such as *animation*, *audio*, and *video*). At the same time, our collection provides nuanced descriptions of concepts that Gallon's collection takes for granted (for example, *audience* and *genre*). These different granularities and premises reflect the different purposes of the two projects. They also demonstrate the continuity of theory and practice as well as the potential for our nuanced investigations of keywords to enrich how practitioners think about practice. Indeed, as Figure 4 attempts to demonstrate, the keyword essays of our collection are situated to inform conversations within and between the academic and pragmatic traditions of TPC.

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**Step 3. Decide on a word cloud generator and identify rules for structuring terms**

Given our purpose, we did not need to turn our source texts into aesthetically pleasing visual representations, which is a focus of some word cloud generators (for example, WordArt). Rather, we needed a set of terms where the frequently used ones are highlighted visually and each term's numerical frequency is given. Also, we wanted to extract not only singular words but also phrases that may function as keywords. With these needs in mind, we compared multiple word cloud generators before choosing ToCloud. ToCloud is a free online generator available at tocloud.com. It outputs terms in a simple list format and can use font sizes and/or colors to visually denote frequency as well as specify numerical frequency in parentheses following the terms. Users can choose to list the terms alphabetically or by frequency; they can extract not only singular words but also phrases. ToCloud automatically filters out words such as *a*, *the*, and *that*; a user can specify additional words to be filtered out. Figure 5 shows a sample ToCloud mapping result.

![Figure 5. An example of a ToCloud word cloud.](image-url)
Following Selfe and Selfe (2013), we manually manipulated our source text before submitting it to ToCloud. We removed proper nouns, such as Sage Publications, and boilerplate terms, such as the standardized abstract headings purpose and literature review, that may be mistaken for high-frequency keywords.

Steps 4 and 5. Adjust granularity and interpret/compare word clouds

Even though we narrowed our source text to abstracts, the dataset is still quite large, containing more than 153,000 words, many of which appear less than five times. To make the resultant cloud more manageable, we applied ToCloud’s threshold functionality and mapped only those terms with a minimum of 20 appearances. With this adjustment, the resulting cloud contained a total of 948 unique terms.

As Selfe and Selfe (2013) reminded us, word clouding cannot be treated as a wholly computerized process; active reading and authorial interpretation is needed to make sense of the results. Given our purpose, in our interpretation, we tried to identify terms that are frequently used and thus quantitatively significant. Equally importantly, we tried to identify terms that, based on our knowledge of the field, are qualitatively significant and the focal points of disciplinary efforts and debates. In addition, we needed to identify terms that share a common root (e.g., user, usability, and usability testing) to ensure we do not miss key interests shared by these otherwise different terms.

To facilitate our reading and interpretation, we generated two versions of the cloud. One lists the terms by frequency so we can more easily compare use frequency; the other lists the terms alphabetically so we can more easily identify related terms that share a common root. Comparisons between the two clouds allowed us to balance our needs. Notably, we found that the most frequently used terms do not necessarily serve our purpose. In our word clouds, the most frequently used term is communication, which appeared a total of 1,361 times. Although communication is essential to our discipline, this term is too broad for useful description—indeed, this entire project is conceived to identify keywords that unpack technical and professional communication. Similarly frequent and broad terms include writing (430 times), data (286 times), and English (148 times). On the other hand, terms that appear less often can represent emerging concepts important to the field’s development, for example, social justice (24 times). Through such constant comparisons, we arrived at a short list of 123 terms, which we then cross-examined in other phases of our methods.

Phase 1.2. Use Excel to Analyze Journal Keywords

Similar to abstracts, keywords—both those submitted by article authors and those indexed by journals—are signposts of the foci and concerns of journal publications. Because these source texts already exist in a “keyword” format, Microsoft Excel offered a more expedient way to analyze them. As with Phase 1.1, we
exported from Scopus all author keywords and indexed keywords from our identified journals and publication range. Using Excel formatting tools, including “Text to Columns,” we created flat lists of all key terms (one term per cell) and then counted the frequency of each unique term in those lists using the function `COUNTIF(A:A, An)`.

Within author-submitted keywords were a total of 2,551 unique terms. The vast majority of them, over 2,000, appeared only once, and less than 50 terms appeared eight or more times. Journal-indexed keywords have a similar trend: Among a total of 2,383 unique terms, over 1,800 appeared only once, and just over 70 terms appeared eight or more times. Between the two lists, the most frequent term is again the broad communication, which appeared 166 times, followed by similarly broad terms such as technical communication, teaching, and technical writing. After about ten such terms, we started to see specific terms such as usability (55 times) and rhetoric (46 times).

We next compared these results with Phase 1.1 results for a combined analysis, again balancing the needs for quantitative and qualitative significance. At this point, we also took practical factors into consideration. Other keyword collections we reviewed typically contain essays on 30 to 50 terms to allow a substantial coverage but also sufficient elaboration on each term, and thus we aimed for a number in that range. The result of this phase was a total of 43 unique terms, including slash-bound terms. For example, although international technical communication and intercultural technical communication both appeared in the corpus, these terms have affinities and contrasts that—in our view—would be best examined in a single essay; hence, we combined them into international/intercultural communication.

## Phase 2. Survey

To supplement and check the interpretive perspectives the two of us brought to the process described above, we created a survey and distributed it via the Association of Teachers of Technical Writing listserv and the Council for Programs in Technical and Scientific Communication listserv. The survey invited participants

1. to submit what they believe are terms significant for the field and in need of explanation to newcomers,
2. to evaluate the terms we identified in Phase 1, and
3. to suggest names of contributors well suited to write about the keywords.

Toward the end of the survey, participants were invited to share their disciplinary backgrounds. Depending on participants’ answers on which role they primarily identify with in the field of TPC (faculty, graduate student, industry practitioner, or other), they were then taken to different background questions.

A total of 43 participants completed the survey, though not all participants answered all questions. Most participants reported having either six to ten years
or 20+ years of experience in the field, with the majority being technical communication faculty at four-year universities in ranks ranging from instructor to full professor. Many of these participants direct technical communication programs, including certificates, major and minor programs, service course programs, master’s programs, and Ph.D. programs. Six participants identified themselves as graduate students or industry practitioners, and two identified themselves as performing more than one role, for example, faculty member and industry practitioner. Participants who are industry practitioners work in areas ranging from web content strategy and program management to social media.

We recognize that 43 participants is not a large sample and that, in particular, there were a limited number of participants who self-identified as industry practitioners. Despite the relatively small number of responses, we still obtained rich data informative for our purpose. In addition, we were not so much relying on the survey to generate data as using it to help refine and support our interpretation of Phase 1 data. Specifically, we used participant responses to identify key terms we might have missed in Phase 1 and to gather additional perspectives on the terms we already identified.

To limit biasing participant responses, we asked open-ended questions first before inviting participants to evaluate our Phase 1 keywords. In the open-ended questions, participants were asked to identify the five most important topics in technical communication today as well as the five terms they think newcomers to the field struggle with the most.

The key terms suggested by survey participants were analyzed using the same methods outlined in Phase 1.2. A total of 147 unique terms were suggested. Of these, 101 terms appeared only once, and 21 terms appeared more than four times. The most frequently mentioned term is *rhetoric* (26 times), followed by *usability* (19 times), though if *usability* is combined with related terms (*user experience* and *user-centered*), it becomes the most frequently mentioned concept. The terms that participants identified as important and/or difficult included themes not covered by our Phase 1 results; they are, notably, accessibility, audience, particularly challenging genres (*grants* and *documentation*), social media practices, specific standards and markup languages (e.g., DITA and XML), and structured authoring.

Participant evaluations of the 43 terms we generated in Phase 1 confirmed the importance of those terms. All 43 terms received at least some votes of “very important,” though many also received votes of “not important.” Table 1 summarizes these evaluations. In addition to rating the terms, participants could offer qualitative comments, though no consistent patterns emerged from these comments. For example, as mentioned earlier, some championed the inclusion of terms such as *feminism*, while others questioned their centrality to the field. Some applauded the coverage of the 43 terms, while others wondered if some of the terms are already common knowledge for the field. Some participants also questioned if some terms, such as *service*, are too general. Such comments aided us in refining the list of terms; for example, we ultimately decided to cut *service* from the list of essays.
Final Analysis and Interpretation

In our final analysis, we cross-examined and synthesized Phase 1 and Phase 2 results, again balancing quantitative and qualitative considerations. With Phase 1 terms that participants questioned as being too general, we reconsidered their relevance. Many of those with the lowest importance ratings were cut, some terms were conceptually broadened (e.g., digital technology became technology), and others were combined under a single term that could encompass several themes (e.g., user experience now covers multiple user-related terms). In some cases, we returned to the journal data to find modifiers to limit the terms or create notes for future essay writers to specify the terms in their writing. For example, with the term design, we recorded that it is associated with terms such as document design, participatory design, and web design.

Table 1. Ratings of Phase 1 Keywords by Survey Participants

<table>
<thead>
<tr>
<th>Term</th>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Not Important</th>
<th>Importance Score*</th>
<th>Rank**</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Actor/activity</td>
<td>38.9%</td>
<td>14</td>
<td>44.4%</td>
<td>16</td>
<td>16.7%</td>
</tr>
<tr>
<td>Content analysis</td>
<td>41.7%</td>
<td>15</td>
<td>50.0%</td>
<td>18</td>
<td>8.3%</td>
</tr>
<tr>
<td>Content management</td>
<td>72.2%</td>
<td>26</td>
<td>25.0%</td>
<td>9</td>
<td>2.8%</td>
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<td>5</td>
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</tbody>
</table>

*The “importance score” is a weighted average of each term’s rating that assigns 2 points for every “Very Important” rating, 1 point for every “Somewhat Important” rating, and –1 for every “Not Important” rating.

**Several terms had the same score; thus, there are only 14 ranks to account for tied scores.
Figure 6. Summary of the development of our roster of keywords. Terms in bold were included in the final list.

With additional terms that were suggested by multiple participants, we examined the journal data to assess their quantitative frequency. We also solicited feedback from several trusted colleagues who edit or have edited major journals, which resulted in additional keywords. Through several iterations of this process, we arrived at our final list of the 39 keywords examined in this volume. Figure 6 summarizes our changing roster of keywords.

To frame the collection, we also solicited two additional essays. We invited Johndan Johnson-Eilola and Stuart A. Selber to write a keyword foreword (“Technical and Professional Communication”), which provides reflections on both this collection and the current state of the field. We also asked Kristen Moore, Lauren Cagle and Nicole Lowman to write an afterword (“Diversity, Equity, and Inclusion through Citational Practice”) to document their process and findings for the inclusive citation audit they conducted on earlier drafts of the contributed essays. This audit is described in more detail after the following description of how we selected our contributors.

Our Contributors

As mentioned previously, our survey invited participants to suggest contributors well suited to write essays on our identified keywords. Among our final list of 39 keywords, all but eight keywords received at least one and often multiple contributor suggestions. Some of the suggested contributors are clearly situated in the field of TPC; that is, they work in TPC programs and publish in TPC journals. Other suggested contributors are situated more closely in...
related fields such as cultural studies or composition and rhetoric. Given our purpose for this project, in selecting contributors, we focused on those clearly situated in the field of TPC. In addition, when multiple survey participants suggested the same contributor for a keyword, we also favored that contributor.

For each keyword, we also performed literature searches (using that particular keyword) in technical communication publications to identify potential contributors who have published on that keyword. The publications we searched included the journals used in our keyword data mining but also other TPC journals and book publications. We focused on authors whose work exhibits extensive knowledge of a keyword, for example, people who have published multiple articles on the topic or who have written or edited books on the topic.

Through these processes, we were able to decide on potential contributors for all 39 keywords. In some cases, we identified two contributors for a single keyword because they frequently co-author on the topic. We then contacted potential contributors and invited them to participate in our project. In almost all cases, they agreed to participate. In a few cases where they couldn’t (usually because of time constraints), we repeated the above process to identify another contributor.

As the above description shows, the process we used to identify contributors is not a science. There is no denying the potential biases that we, as well as our survey participants, brought into the process. Most importantly, by focusing on (consciously or unconsciously) experts who have published extensively on a topic, our selection favors those more established in the field and is biased against emerging scholars. Potentially, then, the resulting keyword essays may be more backward-looking than forward-looking. We tried to address this limitation in our guidelines to contributors (more about this below). In addition, our process may be biased against marginalized scholars who are systemically underrepresented in citations, publications, and the field’s collective memory. However, eight of our 42 keyword essay contributors self-identify as multiply marginalized or underrepresented (MMU) scholars on the “MMU Scholar List” maintained by Cana Itchuaqiyaq (2022). Overall, our contributors represent a wide range of disciplinary perspectives, from the most seasoned teacher-scholar-practitioners to mid-career scholars expanding the boundaries of the field. We have been delighted and honored to work with this group of experts who collectively have cultivated centuries of expertise in TPC.

Guidelines for Contributors

To create a certain level of consistency between our keyword chapters—without prescribing a rigid structure or pattern—we established several guidelines for our contributors. These guidelines are taken from and modified based on the contributor guidelines for Keywords for Children’s Literature, generously shared by one of the editors, Phil Nel.

Contributors were asked to start their essays with a paragraph summarizing the history of their keywords in English and (if appropriate) in other languages.
For English etymology, we recommended that the contributors use *The Oxford English Dictionary*. Alternatively, for keywords that may not benefit from an etymological opening, we suggested an initial paragraph that summarizes the changing contemporary and disciplinary contexts where a keyword has been used. As the essays took shape, some introductions were revised to emphasize a term’s significance for TPC praxis before discussing its history.

Beyond the first paragraph, we asked contributors to structure their essays around the significant debates surrounding their keywords. We use the word “debate” loosely. It can include particular problems that emerge in the use of the keyword in the research, teaching, and practice of TPC. It can refer to the ways that multiple theoretical perspectives have been used to interpret the keyword in TPC. It can include the critical projects/perspectives that the keyword enables or hinders in TPC.

For the ending of their essays, contributors were asked to create a forward-looking paragraph, discussing how their keywords could be used in the future and/or whether they need to be rethought in our current environment. Our foreword authors were similarly asked to take both a historical view of the importance of the keywords in this volume and to look forward to how these keywords could evolve in the future.

Finally, we also shared with our contributors the entire list of our keywords and asked that they identify cross-reference potentials. That is, when their chapters mention another keyword included in the volume, they should bold that other term upon its first use to signal cross-references. These cross-references, we hope, will allow readers to form multi-dimensional understandings of the field. Indeed, as the 442 lines representing them in Figure 7 suggest, the links between keywords form a complex network of connections.

### Inclusive Citation Audit

As this project got underway, Kristen Moore (author of the essay on *public* in this volume) offered to conduct an inclusive citation audit for the volume, which she completed with Lauren Cagle and Nicole Lowman. An inclusive citation audit helps to ensure that a collection actively cites underrepresented and marginalized scholars, recognizes their scholarly contributions, and includes them in a critical reflection of the field. Doing so is important in all our work but essential in a keywords collection where authors claim to identify key topics, discussions, and debates. After Kristen proposed the idea, we immediately agreed that an inclusive citation audit, conducted by scholars other than us, could help to modulate subjectivity and bias across the collection.

The audit was performed on early drafts of the chapters. Moore, Cagle, and Lowman provided contributors with chapter-specific feedback, suggesting possible angles to relate their writing to issues of inclusion and social justice, as well as citations of work by underrepresented scholars that can inform any discussions of the term. More details about this audit can be found in the afterword of the volume.
We also want to point out that, prior to this citation audit, many of our contributors already explicitly engaged with issues of diversity, equity, power, and inclusion in their early drafts. These include not only chapters that, given their keywords, have an explicit focus on social justice and non-hegemonic theoretical frames (such as chapters on *social justice* or *feminisms*) but many other chapters, for example, those on *profession*, *history*, and *literacy*, to name just a few.

### Ways to Use This Collection

We envision two ways that readers may use this collection. First, we believe it can function as a useful scholarly source. By tracing the genealogy of terms central to TPC and revealing their evolving, divergent, and contested meanings, these essays can help researchers to critically engage related studies. This use may take...
the forms of researchers acknowledging conflicting viewpoints, adopting different theoretical lenses, or strengthening their original arguments. We also hope, as mentioned earlier, that researchers will actively interact with this collection, whether by updating the essays contained here, by critiquing or responding to them, or by creating new essays. Doing so will allow all of us to continue questioning and enriching our understanding of the field’s keywords and their interconnections.

Another important way we envision this collection being used is as a pedagogical tool. Essays in this collection, with their focused intent, short length, ambitious goals, and rich examples, are well suited for orienting students into the field. The entire collection, or selected essays, might be assigned to students to provide background information related to course topics. Alternatively, students may be charged to revise or expand select essays using information gained in a course or through additional research. More ambitious assignments might ask students to write new keyword essays, either individually or collaboratively, using terms that are central in the context of a given course.

For instructors interested in such an assignment, Burgett and Hendler (2014) suggested a two-step process. In step one, students create a repository of use examples of a particular keyword. Depending on the nature of a course, students can use as source materials their assigned readings, additional readings, or multimedia materials such as “images and sound, conversations overheard on the street, or exchanges on a bus” (Burgett & Hendler, 2014, p. 10). In step two, students write about the usages they curated. This two-step process can help students develop a range of relevant skills, from close reading and observation to multimodal data gathering and organization to synthesis and collaboration.

The above represents just a small list of possibilities for using the essays collected here. We look forward to learning from our readers about how they use, respond to, and interact with this collection.

### Conclusion

It has been a pleasure and privilege—and a long journey—to work on this project. We hope our readers find this collection helpful as they enter the field of TPC, navigate its terminological complexities, expand understandings of established concepts, and develop the new terms that will move the field forward.

### References


Selfe, R. J., & Selfe, C. L. (2013). What are the boundaries, artifacts, and identities of technical communication? In J. Johnson-Eilola & S. A. Selber (Eds.), *Solving problems in technical communication* (pp. 19-49). The University of Chicago Press.

