Redefining Writing for the Responsive Workplace

In this article we argue that mobile, design, content, and social media technologies have fundamentally redefined the role of the writer in the workplace. Rather than the originator of content, the writer is becoming a sort of multimodal editor who revises, redesigns, remediates, and upcycles content into new forms, for new audiences, purposes, and media. This article discusses data gathered from over one hundred hours of embedded workplace research shadowing nine different professional communicators. The data demonstrate the iterative, detailed, product-focused types of work happening within a range of workplace constraints and, in turn, emphasize the need for writers and teachers of writing to recognize the importance of developing a broad skillset to prepare for this kind of work.

[My job relies on] critical thinking . . . determining what content is supposed to go where at what time and . . . being able to make those choices.
—Tom, social media strategist for a large aerospace company

I’ve always been a strong writer, so I think I gravitated toward this role. [but] it’s definitely a different kind of writing that I had to get used to.
—Madison, communications director for a small nonprofit

CCC 70:4 / JUNE 2019

634

Copyright © 2019 by the National Council of Teachers of English. All rights reserved.
It’s remarkable what you can learn over the course of several days shadowing a writer in the workplace. The opportunity to observe a writer participating in countless meetings, projects, discussions, technological interactions—and yes, even doing some actual writing—uncovers a rich complexity of experience. Multiply that observation by eight more writers in eight more workplaces, and the sheer amount of content and commentary swimming through your notes, files, and interview transcripts begs for exposure, so that future writers preparing for future workplaces might know a little more about what to expect when they leave our classrooms and are invited to apply their knowledge and critical thinking skills in new communicative arenas.

Will our students become like Tom, who works in a massive office complex with hundreds of other people and manages the social media and digital content for a large aerospace company? Or will they become like Madison, who works in a glass-fronted brick duplex downtown that doubles as an art gallery and serves as the home of a small-staffed but vibrant nonprofit, encouraging local business support and development. Or perhaps they will fill a role like Beth, who writes web content for a large web hosting company, or Nate, who develops content for a small digital marketing agency, or Connie, who writes help content for the clients of a midsized healthcare solutions company.

Whatever jobs our English majors, rhet/comp majors, or professional/technical writing majors decide to pursue, it is reasonable to assume that writing will be involved. At the very least, this has meant having some facility with written language and composing technologies and some awareness of audience, purpose, context, and rhetorical appeals. However, the delivery of writing—by which we mean the channels through which it is distributed and consumed—has been evolving so rapidly in the past decade that our fundamental assumptions about writing in the workplace must also evolve. We call this evolving workplace “responsive,” borrowing from the practice of “responsive web design,” which is the now-standard approach to designing websites so their appearance and usability adapt to various screen sizes, resolutions, and device types. A “responsive” workplace is one in which writers must adapt to making meaning not just through writing, but across a range of modes, technologies, channels, and constraints. To some extent, writers have always had to be “responsive” to changes in technologies,
The responsive workplace is reflective of the reality that information now comes to us not only through written language but also through still and animated images, video, sound, and combinations of these, and other, modes. It is composed not only through a word processor but also through multimedia and graphic editing programs, web interfaces, and cell phones. It is distributed not only through print but also across screens of every shape and size and resolution.

Information is also circulated more rapidly than ever before. Social media channels make for immediate distribution of writing and other multimodal content, which, in turn, has altered the pace at which content is developed and consumed. Social media posts, in the form of written text, still and moving images, and short videos, are expected as events are happening. Now that immediate distribution is possible, the time allowed for the development of writing and multimodal content has been cut dramatically.

But what does this all look like in the real time of the responsive workplace? In 2015–2016, CCCC awarded us a grant to explore what is happening with writing in the workplace and how it has changed. This article reports back to the CCC community about what we found. Though we cannot achieve a comprehensive analysis of all that we observed within the scope of a single article, we report here on patterns that emerged in our observations that challenge typical notions of the role writing actually plays in the workplace. We do so because becoming aware of the practices of workplace writers will allow teachers and researchers to reflect on how we can better serve our students and prepare them to be immersed in a rapidly iterative, technologically advanced arena.
Our more than one hundred hours of observations of nine writers in the workplace suggest that advances in social media and other composing technologies and distribution channels have engendered a workplace in which writers are not tasked with “writing” as it is typically taught in the classroom—where students are asked to produce complete documents through a process that begins with invention and drafting and extends through revision and delivery. Rather, our study suggests that many writers actually act as multimodal editors—people who work with myriad modes of content—often encountered in medias res after the content has been originated by coworkers or consultants.

Multimodal editors are responsible for modifying, adapting, designing, editing, selecting, and constructing content in ways that are dispersed, nonlinear, collaborative, and responsive. We refer to this as “multimodal editing,” because it often involves shaping preexisting content that has been sourced from a variety of people and modes and distributed across a range of channels and uses. Multimodal editing requires rhetorical agility and adaptability.

Based on our research, we argue that multimodal editing has, in many ways, become the writing of the responsive workplace. We discuss how our research was informed by previous studies, describe how our study was conducted, and share anecdotes from our observations that illustrate these practices in greater depth. We then discuss how writing-as-multimodal-editing more accurately characterizes a substantial amount of the composing work happening on the job, and discuss the implications of this study for writers in the workplace, as well as for writing faculty and programs.

**What the Literature Has Said about Writing in the Workplace**

The field of professional writing has benefited from a number of workplace studies that have provided insight into the workings of organizations and the roles of writers and writing within them (see, for example, Doheny-Farina; Pigg; Spinuzzi; Winsor). More focused research into what writers need to know to be successful in the workplace has been conducted by interviewing managers and writers, surveying writing program alumni, and analyzing job ads. These multiple perspectives provide teachers and
programs with clear indications of the kinds of writing and other practices we might consider cultivating in classrooms to best prepare our students for the workplace.

In their survey of technical communication managers from a range of industry sectors, Kenneth Rainey et al. collected the perceptions of sixty-seven managers who ranked the importance of various communication competencies to the daily work of technical communicators. The data indicated that being able to collaborate with teammates and subject matter experts was as important as being able to write clearly for specific audiences and purposes. And, even in 2005, when the study was published, writers on the job were crafting a range of information products: documentation, online help and reference materials, training guides, style guides, and web pages all were prevalent.

Stevens Amidon and Stuart Blythe's 2008 study similarly collected data from managers, although their lengthy interviews focused on project management in technical communication, particularly on how knowledge work has shifted in response to technological change. The authors report that study participants used multiple genres and a combination of technologies to steer the project management process. Perhaps most significant, though, is the finding that participants could "rely on little by way of tradition or habit because constant change often render[ed] such ways of acting and knowing untenable" (32). Similarly, Deborah Brandt interviewed individuals for whom writing comprised at least 30 percent of their typical workday, although most were not professional writers, per se. Like the managers discussed above, Brandt’s interviewees produced a range of genres, often in a collaborative process that involved multiple authors and reviewers. Both Amidon and Blythe's and Brandt's research foreground the ways in which rapid changes in the workplace require innovation and adaptability in response to shifting organizational structures, job titles, and responsibilities, including the kinds of writing required.

More recent data reveal that the writing landscape has continued to shift and expand. Stuart Blythe et al., for example, report on a survey of 257 professional writing alumni who were asked about the types of writing they were engaged in and valued the most. Participants indicated that instructions/manuals, websites, presentations, definitions, grants/proposals—and a new addition—social media—were the most common writing
they produced. Participants also reported writing scripts and producing more “momentary” types of writing, including texting and other forms of messaging, as well as visual genres. This expansion in types of writing was accompanied by an expansion in the technologies used to craft and share that writing, with social networking, wikis, blogging tools, and presentation software joining word processing and image editing/design tools.

A 2015 study provides a more detailed look at the professional writing landscape through the lens of job advertisements (Brumberger and Lauer). The authors collected and analyzed 914 job postings in order to identify types of professional writing jobs, along with the competencies, personal characteristics, technology skills, and genres commonly requested of job applicants. Although the position of technical writer/editor was most common, content developer and social media writer—relatively new positions that have come about in the past ten years or so—accounted for a full one-third of the jobs. Top genre types included more traditional user guides and written documentation, but also included website writing, brand/marketing writing, and social media writing, as well as writing for multimodal and video products. “Writing” was the most commonly requested professional competency; also in the top five were project management, editing, visual communication, and subject matter familiarity. The top five personal characteristics were collaboration, time management, independence/initiative, critical thinking, and detail orientation. Finally, the top five technologies included MS Office, Adobe Photoshop, content management systems, HTML/CSS/Javascript, and Acrobat. These findings reflect a diversity of skills, traits, competencies, genres, and technologies that largely align with the findings of Blythe et al. and suggest that writing in the workplace extends beyond the more isolated and siloed kinds of writing that often comprise the work our students hand in for grades. These findings also show that the realm of professional writing has expanded to include social media writing, writing and designing for the web, information architecture, and content management. While all of these areas still focus on producing writing that will meet the needs of an intended audience, we contend that multimodality, expanded networks of collaboration, and unprecedented distribution channels are transforming professional writing from content creation into agile and iterative multimodal editing.
What This Has to Do with Editing

Editing, like writing, was one of the top competencies requested in professional writing job advertisements (Brumberger and Lauer). However, given the range of other abilities and the multitude of genres requested in such ads, we contend that the editing called for by employers is not necessarily the traditional markup and wordsmithing of long-form content that typically characterizes editing in the literature. An editor has traditionally been viewed as someone whose job is to correct and refine an author’s written content. Even editing that addresses deeper issues of content is most often seen as having the primary role of ensuring completeness and coherence (Grove 171) and improving readability and clarity (Bush 16), in addition to ensuring correctness. The widely accepted levels of edits model of technical editing developed by van Buren and Buehler stipulates multiple levels of editing, ranging from coordination editing to substantive editing, but while it aims to show editing as a “wide-ranging, deeply probing” activity, it still positions editing as a “review” activity (1).

Some scholars describe a more content-focused editing process as one of quality assurance (Corbin 69; Corbin et al. 287) and liken it to the quality assurance process that is integral to software development (Corbin et al. 287). Michelle Corbin et al. argue that editors are responsible for the quality of the information—the degree to which it meets users’ needs (288) regarding retrievability, accuracy, appropriateness, and comprehensibility. However, even when conceived of as quality assurance, editing is still relegated to a supporting role that is “distinct and separate” from writing. Editors remain “advocates” and “supporters” (295), what Avon Murphy terms “the gatekeeper[s] of quality” (1), who “help writers communicate information” (Corbin 67).

Other scholars have described editing as a process of problem solving (Bisaillon; Warren), whereby the editor reads, rereads, detects problems, reflects on those problems, and arrives at solutions (Bisaillon 307). However, this conception still focuses largely on quality assurance—on ensuring accuracy, clarity, and so on. As Jocelyne Bisaillon notes, only in “special circumstances” will an editor “intervene in the ideas of the author whose texts s/he is revising, no more than s/he will modify the author’s particular style” (296).

Carolyn Rude expands on the conception of editors as problem solvers, arguing that they must consider not only details but also “broad
consequences for users” (54). She discusses the ways in which the details and the broader vision intertwine in a problem-solving process that has as its end goal meeting users’ needs. As Rude notes, “effective documents depend not just on good sentences and consistency but also on choices of content and means of distribution that are appropriate for users and on organization of information for comprehension, retrieval, and reuse” (52). This understanding of editing is one we will build from later, because of Rude’s emphasis on editing as a problem-solving activity and her characterization of editors as those who are detail oriented and consider rhetorical elements of audience and context.

Also informing the conversation are scholars who argue that the editor’s role is both evolving and becoming more important (possibly more important than even the author) with the rise of content management systems (CMS). Nicole Amare contends that CMSs, “while diminishing the traditional authorial role because of the need for fragmented and reusable content, have accelerated the technical editor’s authority” (189) and are “forcing us to acknowledge finally the expertise of the editor in text production and the declining value of originality and therefore traditional concepts of authorship” (184). Similarly, Corbin et al. argue that the growing propensity to combine and repurpose content from various sources into new deliverables will make editors even more valuable because of their distinct and specialized skills (296). George Hayhoe suggests, “In the new world of strategically managed content and single sourcing, much of what we think we know about writing and editing must be relearned” (282).

In Walks Multimodal Editing

We agree that CMSs, along with social media platforms and rapidly deployed multimodal content, have changed our notions of what it means to author content. But rather than weigh in on the perceived importance of editors versus authors, in this article we would like to disrupt the divide between them. We argue that instead of there being an increased need for editors
In the responsive workplace, there is an increased need for writers who recognize the extent to which their jobs have become multimodal editing. And while editors may become more valuable in organizations with editorial teams that manage a CMS (and thus the flow and distribution of content), we suggest that perhaps the reverse is true—that as multimodal editing becomes more integral to the work of writers, writers-as-multimodal-editors will fundamentally change what we consider writing. Based on our observations of writers in the workplace, writing-as-multimodal-editing more accurately describes the rapidly iterative, detailed, product-oriented work happening within a variety of constraints (e.g., time, resource, technology) in the responsive workplace.

**Our Study**

With the support of a Conference on College Composition and Communication Research Initiative Grant, we shadowed nine professional writers on the job for twelve hours each. To recruit participants, we cold-called and emailed companies in our metropolitan area, participated in professional communication events and meetups, networked with local practitioners we already knew, and asked friends for potential contacts within their workplaces. Ultimately, this led to nine participants in a range of position types (participant names have been changed):

- Tom, a social media strategist for a large aerospace company
- Beth, a front of site writer for a large web hosting company
- Nate, a content strategist for a small digital marketing agency
- Andrea, a technical editor for a large aerospace company
- Sue, a technical writer for a midsized mortgage company
- Don, a lead UX writer for a large web hosting company
- Connie, a technical writer for a midsized healthcare solutions company
- Ryan, a senior UX designer for a small digital marketing agency
- Madison, a communications director for a small nonprofit organization
Before each site visit, we conducted a short introductory interview with the participant, during which we gathered background information about the company, as well as the participant’s experience levels and perceptions of his or her job responsibilities. We asked participants to describe what they did in their job, what types of writing they did, and what percentage of their job involved creating original content versus revising, reworking, and repurposing existing content. Although each of us observed individually, we refer to the process in the plural (i.e., “we observed”) to streamline our accounts.

In order to capture a sense of a typical day on the job, we worked with each company and participant to set up our visits so they would minimize disruption of work schedules while allowing us to observe as broad a range of activities as possible. We were able to observe participants working individually at their computers; collaborating both informally and formally; contributing to phone, in-person, and hybrid meetings; even socializing during breaks and over lunch. Because one participant typically worked remotely 50 percent of the time, we shadowed her in her home for several hours. Although the majority of time during the site visits was spent quietly and unobtrusively observing and taking copious notes, we periodically asked participants questions about what they were working on, their processes, decisions, and so on. In some cases, we were also permitted to retain copies of their work.

Once we completed each twelve-hour site visit, we conducted a second interview with each participant in order to confirm whether or not the days we observed were typical. We also used the post-observation interviews to gather more in-depth information about various aspects of the site visit that we found particularly interesting or actions and interactions that we thought warranted further exploration. The site visits and interviews provided insight into the practices of the writers we observed with a level of detail that is largely unavailable in post hoc surveys or job posting analyses. Perhaps even more importantly, we were able to observe practices that the workers themselves had so well internalized that they may not have seen them as integral parts of their jobs.

**What We Discovered**

In some of the positions we observed, we saw more typical writing and editing practices: writers who wrote content (for websites, wikis, online help,
articles, and reports), and writers who edited content written by subject matter experts. However, even in these cases, we observed some key differences from more traditional professional writing practices. For instance, participants often worked with existing content (frequently received from others), revising it to develop new writing for different audiences and purposes. Also, writing was typically produced within very specific constraints and in small chunks, usually for use on a website, in a presentation, or on social media. And often, writing was produced using nontraditional software (e.g., project management and prototyping software versus word processing software).

These kinds of practices may not be entirely new, but the extent to which they dominated was noteworthy. Even more significant was the amount of time that participants dedicated to editing. They edited verbal content (e.g., for audience, voice, tone, emphasis, and word count); video content (e.g., modifying scripts, audio, and video, and versioning video for different purposes/audiences); images (e.g., framing, modifying, and cropping for emphasis, transforming static graphics into motion graphics, and using emojis); and even code (e.g., modifying website and app code for specific functionality).

We came to call this work writing-as-multimodal-editing because it was framed as writing but included the adaptation of multimodal content within a range of constraints. We came to call this work writing-as-multimodal-editing because it was framed as writing but included the adaptation of multimodal content within a range of constraints. It didn’t fit within traditional notions of writing, but it also extended well beyond traditional notions of editing. In the sections that follow, we discuss what writing-as-multimodal-editing looked like in the workplaces we observed. We offer examples of the processes and activities that characterized our participants’ work, their perceptions of that work as revealed during the interviews, and the constraints—rhetorical, material, and technological—that have elevated multimodal editing to so vital a part of the writing process. We also discuss the implications this study has for our assumptions about writing, editing, and our treatment of both in the classroom.

**Working with Existing Content**

Much of the writing we observed did not originate with our participants. Instead, it was, to varying degrees, created by subject matter experts, members of the legal/compliance team, other groups within the company,
or even clients. In this way, important rhetorical work was happening *in medias res*—in the midst of the development process—to adapt that content for a product or series of products that would serve a range of audiences and purposes. Our observations align with George Pullman and Baotong Gu’s argument that writers need to think of their work “in terms of asset management” (3). In contrast to limiting content to rigid types of texts and genres, content is fluid and networked (Dush), and circulates through what Chris Mays terms “interconnected systems,” functioning “in, through, and on a diversity of environments, objects, discourses, materials, ideologies, cultures, technologies, genres, and so on” (569).

For instance, Tom, the social media strategist, often posted visual and verbal content that was sent to him by others in the company and by the PR firm with which the company contracted. On one of the days we observed, a company rep sent Tom a photo and description of a trade show she was attending; Tom’s job was to edit the photo (crop it and clean it up) and adapt the descriptive text so that the tone, length, and style were suitable for posting it to the multiple social media channels (Twitter, Facebook, LinkedIn, etc.) the company used to communicate with its customers. In one instance, the rep realized after the fact that she had forgotten to include a hashtag for the tweet; to address the oversight, Tom had to delete the tweet and rework it with fewer characters, so that he had room to include the hashtag. Tom posted about the trade show to several of the company’s social media and web channels; for each platform, he edited the post to emphasize different elements that would better fit audience expectations, style, and length limitations of the various platforms. Tom told us that he often gets press releases overnight and will then extract tweets, blog content, and other social media text from them. He usually pulls between four and five excerpts out of a white paper or press release, as well as an infographic or other visuals, which he then adapts to meet the needs of the intended audience and purpose, as well as to maximize the exposure and reach of that content for the company.

Although Tom told us in his pre-observation interview that 30 to 40 percent of his work is “writing,” you can see from the example above that it really is not writing in the traditional sense. Instead, it is adapting someone else’s verbal and multimodal content to changing platforms and situations. Even when Tom elaborated on his response in the interview, the description he gave of his work aligned much more with writing-as-multimodal-editing:
We have an ad agency that creates a lot of our social media content and they’ll send it to us. The way that we sort of handle social media is on a week-by-week basis we plan out our content for the week. That’s what they create, but there’s always stuff that comes up or announcements or something that’s kind of unplanned. Or we’re at a trade show and that kind of stuff comes in, so then I’ll take that and post it. It’s kind of a mix of stuff the ad agency puts together and then stuff that comes in, but the stuff they create isn’t just a “load it in and be done” thing. A lot of times, like for Twitter, if we have links and pictures and stuff it cuts down on the character count so then I have to find a way to cut it down even more.

Like Tom, Connie, a technical writer at a midsized healthcare solutions company, often works with content that has originated with others. She edits, adds to, and helps to maintain a live wiki created in Confluence. The wiki is also accessed, added to, and edited by other employees (including, but not limited to, other technical writers) and by customers. Connie’s work often involves reworking and organizing content added by others. The wiki serves as the most up-to-date documentation and online help platform for customers using the healthcare software that Connie’s company develops.

Nate, the content strategist, also dedicates much of his time to working with written and other multimodal content originally crafted by others. One of the projects on which we observed Nate working involved commenting on the mockup of a website redesign. Using the prototyping tool InVision, he added notes and suggestions regarding the visual design and the flow of written information to a mockup of the website. Another of Nate’s ongoing projects involved reviewing and editing a client-produced video. The client sent the video to Nate, who watched and listened to it, edited the script, and uploaded the edited version to the client’s YouTube channel. For this project, Nate used Excel to comment and track his activity on the video: when he received it, reviewed it, and uploaded it. Similar to his multimodal editing work on the website mockup, Nate did not originate any of the video content; his job was to consult on the original storyboard and edit the script throughout the development process. This multimodal editing work was integral to getting the video finalized as a workable information product.

Like Tom, Connie, and Nate, Sue, the technical writer for a mortgage company, worked extensively with content that originated with others. Although Sue noted in our initial interview that little of her time on the job involved editing other people’s writing, the work that we observed was
largely adding to existing text and reworking text that had been sent to her by the company’s legal/compliance team. When we asked her about this in the postvisit interview, she said, “I guess I just don’t think about it in those terms. . . . I feel like what they give you is so rough that I can’t even apply the word ‘editing’ to it. . . . I guess it doesn’t even cross my mind that that’s editing.” Sue thinks of her work in terms of writing, even though virtually all of that writing is actually taking existing content and recrafting it into something that will better meet the needs of its intended users. Sue’s comments in particular capture the notion of writing-as-editing.

As each of the above anecdotes illustrates, much of the content with which our participants worked originated not with them but with others in the company or with clients. The participants rarely started with a blank page. And yet, that is how we often teach writing. In the classroom, we typically approach writing as an activity that begins with invention and proceeds through drafting, revising, and, finally, production of a text. Teachers scaffold this process throughout a semester, often beginning by having students invent and draft their own writing based on their own research. By expanding our notion of writing, and recasting it as the multimodal editing of work that originates from other sources, we seek to draw attention to the middle and later stages of the writing process and the ways in which we should use these stages as starting points in the classroom.

**Working within Specific Constraints**

The professional communicators we observed were required to adhere to specific constraints for their work, whether they were developing videos, writing for websites, or crafting social media content. These constraints (e.g., length of a video segment, character count of text, or size of an image) mean that writers must not only choose content carefully; they must edit with a keen eye for maximizing impact within the constraints provided.

For example, Tom, the social media strategist, met with the internal communications team to work on a weekly news video that is distributed
to all employees. The video typically highlights news and happenings within the company. Tom and another employee were responsible for narrating the script, and their recorded commentary served as a bridge from one video segment to another. Tom and the communications team reviewed the script and suggested revisions to word choice and organization that would improve the flow and accuracy. They then reviewed the news and story segments that would be included in the video and commented on those as well. The entire video was limited to five minutes, which meant that each segment had to be engaging and meaningful, but extremely succinct, which made the editing particularly high stakes.

One of the video segments highlighted the work that the company’s User Experience (UX) group did on testing the company website. One person in the meeting stated that the UX group video segments were “underwhelming,” often including screenshots of Excel spreadsheets, for instance. Tom concurred that the video segment felt too “screen shotty,” but they then learned that the video had been eight seconds too short when it was originally produced, so the producers inserted a series of visuals showing the UX website and their process to fill the remaining length. Throughout the editing discussion for the UX video segment, Tom suggested modifications that highlighted the importance of effectively layering textual and visual content in a video. The existing visuals did not align with the overlaid audio narration, and the team spent a few minutes wordsmithing for clarity, particularly changing nominalizations into active verbs. Even with the audio narration fixed, Tom was still dissatisfied with the visual story of the segment, because he said the “graphics were untelling.” He suggested they take out the obviously stock images of people and include photos of actual employees instead to personalize the work of the UX team. The group deleted the part of the video that explained the UX process, because they felt the process was already well known within the company. They replaced it with more emphasis on images of the UX team members “so people know that [the process is] not top down.” They believed it was important to communicate that the UX process was people-centered, and because the video segment was so brief, they did this by including visuals of team members at work.

Although the script and video segments came to the meeting already drafted and recorded, by the end of the meeting the communications team had substantially modified the verbal and visual story to better address audi-
ence and brand considerations, making it much more effective. The writing work that Tom—and the entire team—was doing was a process of multimodal editing, one that was shaped significantly by length considerations.

Like the video that Tom and his team recrafted, the majority of the writing developed by the technical writers we shadowed had strict length constraints. For example, Beth’s front of site content was written entirely in small chunks to accommodate skimming and screen size constraints. But, the constraints are more specific than that: her company specifies a minimum number of words of original content to improve search engine optimization (SEO). So for each topic, Beth needs a minimum of 250 words, with a goal of 350 words. For one of the projects on which she was working, she was sent 275 words and was revising and expanding that content to reach the goal of 350 words.

The length and size constraints with which our participants worked are quite different from those on which we typically focus in the writing classroom. The workplace constraints prioritize efficiency and effective use of time and space. Our classroom constraints prioritize student learning as well as logistical issues, including how much writing we as teachers will be able to read and provide meaningful feedback on, and how much written content students should be expected to produce in a lower- or upper-division writing class. By focusing on writing-as-multimodal-editing that happens within an array of constraints, we can accommodate both sets of priorities.

**Versioned Communication**

Although *versioning* can refer to developing sequential versions of a product, here we are referring to versioning as adapting writing for a variety of purposes, platforms, and audiences, something we saw frequently during our observations.

Tom, for example, versions content constantly as he decides what to post to which social media channels. As he said in our exit interview,

> Our customer base is so broad. I mean they could be airline pilots, they could be government procurement people, so they’re different. They’re very distinct and different people. So we kind of focus on each channel having a little bit of a different identity. Where Twitter is more of, like, a newsy-type thing, Facebook is a little more [personal]; these are professional people, but our feeds are going between pictures of their kids and all that stuff. LinkedIn is a little
bit more business oriented; Instagram a little more visually focused. We try and route content to each place that’s a little bit different.

When we asked Tom to elaborate, he added that "a lot of stuff that we do internally is filled with gobbledygook in engineering terms and [is] stuff that doesn’t really relate to the outside world, or [that] your average person might not understand. Really, a lot of what I do is take that and translate it into a way that’s digestible for kind of your regular person."

In addition to versioning that "translates" technical material for lay audiences who follow the company’s social media feeds, Tom also versions audio and video material. One session we observed pertained to an app the company developed to replace the printed manuals used by technicians servicing planes that incorporated parts built by the aerospace company. We sat in on a session in which Tom and his associate Lisa, who specialized in graphic communication, recorded a video introduction with the app developers, in which the developers sat on chairs against a green screen and provided a spoken overview of the app. Tom and Lisa also recorded a Q & A session with the developers and would later record a video tutorial for how the app works (they plugged a recording device into a tablet to record tablet strokes overlaid by audio narration).

Tom and Lisa were sure to record enough raw content so that they would later be able to version the introduction, Q & A, and tutorial not only for an audience of technicians learning how to use the app, but also for audiences comprised of the company’s internal education, sales, and management teams. These teams would be showcasing the app to external audiences (e.g., shareholders, clients, the press) for completely different purposes than what the technicians would be using it for, and thus they needed to adapt the content accordingly.

Hybridization of Genre Conventions
Our observation of the video recording session revealed another feature of writing-as-multimodal-editing: the evolution of genre conventions in response to both the advancements of audio, video, app, and social media technologies and the need for more efficient use of time. As Elizabeth Wardele reminds us, “Genres arise when particular exigencies are encountered repeatedly; yet each time an exigence arises, people must be attuned to the specifics of the current situation in order to employ the institutionalized
features of the genre effectively—or, in some cases, throw them out” (768). So it came as no surprise when we observed writing that would previously have been printed now being developed for access via mobile devices. The video segment and Q & A session described above introduced a repair manual that had evolved from a printed manual to a tablet app. The recorded video introduction and Q & A session may have previously been written down as a memo, an opening chapter to the manual, or an FAQ section to a website but would now be included with the app. The recorded keystroke tutorial for the app may have been printed as a quick-start guide but would now be available as part of the app and on the website. But interestingly enough, although the app would be accessed by technicians on a tablet, it was organized in “chapters” to mimic the book genre with which technicians were used to working. Thus, it could retain its familiar genre features but had the advantage of reducing paper use, allowing for continual updates, and accommodating a greater range of information. Because it could be accessed linearly, as chapters, but also nonlinearly, through topics and key-word searches, it allowed more personalized and efficient access to information.

The idea that genres evolve and adapt is not new (see several works by Bazerman (e.g., Shaping); Spinuzzi, Tracing; Wardle; and many others), and the hybridizing of genre conventions between print and screen access that we saw in the example of Tom’s maintenance manual illustrates just one way that genres and writing practices can shift and evolve. Other ways that we witnessed included several examples of a dual purposing of content to fit two different genres without changing the content itself to accommodate the differing genre conventions. This happens largely in response to limits in time, for both the writer and the audience(s). For example, Madison, the communications director for a small nonprofit organization, told us that the press release genre that she has used in the past “is kind of dying,” because, in her experience, a press release is a longer document than reporters want to have to deal with. In fact, she often will not hear back from reporters if she sends them a full press release, because it is seen as one-way marketing that they may not have time to engage with. She attributes reporters’ lack of response to press releases to the fact that newsrooms are smaller, and reporters are responsible for reading and managing much more content than ever before. So, instead of writing press releases for most of the events her nonprofit sponsors, she first emails reporters to see if the event is some-
thing they are interested in hearing more about. She will also sometimes chat with a reporter on the phone to communicate the basic information about the event or promotion. When she sends a query, unlike with a full press release, she will almost always get a response from the reporter, typically requesting more information.

The dual-purpose hybridization that characterizes writing-as-multimodal-editing emerges from what Madison does next. It is still her organization’s policy to put together a full press release to send to journalists for larger events, but she now writes them with a more casual tone, so she can simply copy and paste what she writes into the organization’s blog and have it double as a blog post. Usually, blog posts use language that is more “fun,” so she works to find the line between the efficiency of a press release and the more informal, chatty tone of a blog post and publishes the same content to both spaces. This saves her a great deal of time, which is particularly important in her position, because, like many nonprofits, hers is trying to do a lot with limited staff and on a limited budget. The challenge for her is that “we are all really invested in the mission” of the nonprofit, so she finds herself tempted to put in many more hours than a typical forty-hour work week; being able to use the same writing for two different genres helps her use her time better.

Ryan (senior UX designer) and Nate (content strategist) both work with dual-purpose writing as well—content that is used for multiple channels of communication without being changed to accommodate different genre conventions. Both Ryan and Nate have to communicate with the clients for whom they produce web writing and multimodal content at the small digital content agency where they both work. In the past, they’ve crafted both formal reports and oral presentations to deliver their work to clients; now, they typically cut out reports entirely and instead send clients the slide deck from their oral presentation to serve as a written reporting of their work. We asked them what effect this had on the quality of the initial oral presentation (i.e., “Weren’t your slides full of text?!” we asked with alarm). Ryan and Nate said that, yes, in fact, they craft the presentation with the assumption that the slides will later be read by the client and need to be able to be understood by members of the client’s company who may not have been in attendance. When we asked about using the “notes” function in a program like PowerPoint to include much of the content without
overloading the slides with text, they said that clients don’t typically know to look in the notes section, so they just use the slides instead.

The practice of writing multimodal content for a presentation slide deck that will then double as a report sent to the client certainly went against our notions of effective slide design and effective report writing. But it also brought to light the important role played by efficiency in writing-as-multimodal-editing. In the cases we cite from Madison, Nate, and Ryan, the features of the genres they are working with aren’t thrown out but are ignored, in order to, as Kathleen Jamieson and Jennifer Stromer-Galley describe, “capture the dynamic nature of rhetorical invention operating within the constraints of the situation” (“Hybrid genres”). The constraints are the time and resources that Madison, Nate, and Ryan have as members of smaller companies and organizations trying to maintain employee numbers while also aiming for business growth.

In the examples above, writing-as-multimodal-editing happens by evolving and ignoring genre conventions. Ignoring conventions also highlights writing that gets edited before it gets written at all. When Madison chooses not to write her blog posts and press releases as separate documents, she is engaging in writing-as-multimodal-editing; when Ryan and Nate choose not to write a report that exists separately from their presentation slide deck, they are also engaging in writing-as-multimodal-editing.

Analytic Optimization
Whereas the hybridizing and ignoring of genre conventions illustrate a more macro-level example of writing-as-multimodal-editing, analytics attends to its micro aspects and illustrates the extent to which editing even small details of multimodal texts can influence the effectiveness of communication.

In a phone meeting we observed, Ryan (senior UX designer) was presenting results to a healthcare company client of an A/B test he was running on two versions of a website drop-down menu. The only difference between the two versions was a change in the text of the drop-down menu. There appeared to be an 11 percent higher “conversion” of customers to the next section of the site with the “A” text versus the “B” text. At the time of the phone meeting, the comparison had only been running for three days; Ryan decided to give it at least a week to see if the difference held true. Later in our observation, he checked the results of another website for which
he was A/B testing the click rate of a button that would link to a partner website; the “A” version of the button had just the name of the partner, and the “B” included the name and logo. The logo version, which reinforced brand awareness, was performing better than the text version. Ryan is able to measure the effect of these changes in real time using a program called Optimizely, which allows for A/B testing of a live website.

Ryan is not an analytics expert, but he has to attend to micro-level decisions about details in the appearance, wording, and structure of website content and has to do so within a budget set by the client. He explained that there are an infinite number of modifications he could run on a site, but he is limited by the testing budget the client has approved, so he needs to think strategically about which modifications might be most impactful. Tools such as Optimizely, Google Analytics, and other software that that enables writers to see how users react to changes in content happening in real time and over time illustrate that the multimodal editing of even the smallest phrasing (or color changes or image edits) can be consequential. Writers-as-multimodal-editors need to be aware of the tools that enable the monitoring and testing of these content choices and need to drive what choices get made, what choices to test, and how to communicate rhetorically significant results to a client.

Tom and Madison both run social media analytics on the content they each post to the various platforms their organizations use. They do so to be able to detect how many posts they can make to Facebook without limiting reach, which affects what kind of content they then choose to post and the posts they will choose to “boost” by paying a small fee to Facebook. Madison showed us how she combines visual content into slide shows as a way of packing more visual content into fewer posts. She also explained that the algorithms Facebook uses to control reach of content often change, so she has to keep up on the changes to maximize the use of this tool for her organization. Madison also uses the analytic features of her organization’s web hosting and email software to test the various click-through rates of email campaigns and messages and learn more about what content from those channels has been viewed so that she can make effective decisions for future campaigns.

Being able to discern audience response from minor changes in the wording of a website link, the subject line in an email post, or the timing and frequency of social media campaigns has important consequences for
the ability of organizations to reach their audiences effectively, and these decisions are ones that writers (not developers) have the rhetorical training to make. With tools to measure audience response at a micro level, writers can analyze response habits and edit word choice and multimodal elements in their texts in ways that can establish the importance of their rhetorical work to an organization.

**Image Considerations**

As we’ve seen in several of the examples already discussed, the rhetorical content of images, as well as their framing and integration with text, is essential for effective meaning making in today’s responsive workplaces. A few additional examples of writing-as-multimodal-editing are worthy of discussion here because they concern not just editing static images but replacing text with emoji images and infusing static images with animated effects.

Tom noted that even just a year before our site visit, he never would have considered using emojis in the company’s social media posts, because they would be seen as unprofessional. However, he’d seen other brands using them increasingly over the year leading up to our observation, and because a large aerospace company might be seen as stiff and stodgy, he now uses them conservatively but also as a way of injecting a modern vibe (e.g., We <3 our customers!) and a sense of goodwill (smiley face emoji at the end of a post). Madison, too, uses emojis in her social media posts, both to reduce character count and as a way of injecting a youthful and fresh vibe into her nonprofit’s communications. She also cited the importance of letting her audiences know that there’s a human behind the social media posts.

There is no doubt that emojis now occupy an important rhetorical space in contemporary professional communication, both out of necessity (limitations in character count) and as a reflection of modern discourse conventions. Research on emojis has blossomed (see, for example, Danesi; Krohn; Miller et al.), including work that examines users’ interpretations of them. One example shows how emojis’ appearance can differ greatly across devices, which can impact the way they are interpreted. Miller et al. tested the popular “grimace” emoji and showed that users reacted to it as largely positive, except for the apple version of the emoji, which users saw
as sending a more negative message. Writers will need to understand the rhetorical shorthand of emojis in modern communication, including when they are appropriate and how they might be interpreted by an audience across a range of devices.

Another relatively new aspect of the multimodal editing of images in professional communication is the deliberate conversion of static to animated images. One example of this is the dynamic slide show content discussed in the previous section, in which Madison opted to transform a single image into a multi-image animated slideshow as a way of incorporating more visual content in fewer posts to increase reach. Madison also talked about doing this as a way of capitalizing on the movement of images in a slide show to capture the attention of audience members scrolling through feeds that are already packed with static images. Another example is from a post Tom composed to publicize a partnership between his company and another company. He wanted to include the image of a handshake, because adding an image would get the post more attention. Lisa, the graphic designer with whom Tom works, mentioned that, while scrolling through her personal feed, she had noticed a post with a slightly animated image, and the movement caught her attention. She and Tom discussed the reality that posts are now so saturated by static images they might get noticed more if the images were edited to contain slight movement. She used AfterEffects to animate the handshake, and the animated version of the image was the one they used to accompany Tom’s Facebook announcement.

While Madison’s images are typically photographs showing actual events that her organization sponsors, Tom uses a mix of photographs from events as well as stock imagery from a subscription service. Although stock imagery is typically polished and of professional quality, this doesn’t mean it is automatically rhetorically effective. We saw earlier, in the video editing example, that the team opted against using stock imagery because it looked too polished to be representative of actual employees at their company. Also, conducting a simple search on a stock image site for something like “handshake” returns hundreds of options, and the writer must be able to sift through all these options with a facility for reading the rhetorical significance of various visual elements (line, weight, color, arrangement, framing, lighting, etc.) to choose images that will complement, accentuate, or communicate effectively for the intended audience. Though Lisa animated the handshake, Tom was the one who chose which handshake
image to use; he cited the strong and bold lines of the hand shapes within the illustration as being what he felt most effectively conveyed the strength of the partnership he was announcing. Selecting and editing images is a highly rhetorical act that can sometimes be overshadowed by textual choices. However, writers with training in the rhetoric of a range of modes will excel at crafting meaning in the responsive workplace.

**Multimodal Editing in the Classroom**

The anecdotes we’ve shared here are just a few of the many instances of writing-as-multimodal-editing that we observed in our more than one hundred hours of site visits. Our research “tell[s] new stories about the old picture, and . . . add[s] pictures that tell altogether different stories about writers and writing” (Brodkey 58). Taken as a whole, our time shadowing writers in the workplace suggests that we need to adopt an understanding of writing-as-multimodal-editing, which will orient students toward the kinds of practices and ways of thinking they may encounter in the workplace, especially those that differ from traditional classroom practice. More broadly, our research demonstrates that we need to rethink our notions of authorship, reconsider our assumptions about the traditional writing/editing process, and modify the ways in which we prepare our students for this kind of professional work. It also confirms the importance of a “goal-directed multimodal task-based framework” for teaching writing (Shipka 285), in which the materiality of texts, and their delivery, circulation, and reception, are not seen as separate from but as integral to invention and production (301). Additionally, our research can help students understand “how content travels and how to optimize it for successful rhetorical effect(s) in these travels” (Dush 187). To that end, we make the following suggestions.

Teachers can work with clients and community partners to provide existing written content from which to work, and students can be evaluated on their ability to adapt and modify that content rather than on their ability to generate original content. Setting up situations in which students start not with their own blank page, but with textual or visual material developed by others (other students, service learning clients, public partners, etc.) can help combat what Clay Spinuzzi calls the pseudotransactionality of much classroom work, in which students are asked to write for profes-
sional audiences outside the classroom but end up writing for the teacher instead. Giving students material and contexts that originate from outside audiences can help situate them in a professional situation that might lead to more authentic, transactional writing experiences.

Additionally, rather than always following a more formal writing process that scaffolds a project over an extended period of time and begins with students generating original writing, we suggest that teachers consider incorporating more "sprint assignments"—same-day, quick-turnaround, low-stakes projects. Teachers can ask students to produce short segments of writing themselves or to work with segments from their peers, a website, client, or other source. Once students have a segment of writing from which to work, teachers can then, for instance, ask them to spend no more than five minutes per platform to produce a series of social media posts from the content. Teachers can also ask students to do a search on a stock image site (such as istockphoto.com, or creative commons–licensed sites such as flickr.com) to locate a photo or illustration that would accompany each post they develop, or that could be used in a narrated video.

We’ve seen from our own classrooms how students respond with enthusiasm to the constraints we’ve introduced in sprint assignments because such constraints dispel any hesitation or fear that students may feel typically hindered by; that is, students don’t have time to overthink a task, or feel stuck or overwhelmed, because they are required to produce or edit writing within a single class period. We also make time, at the end of class or during the following class period, for students to share the results of such sprint assignments with their classmates. Students are often less shy about sharing their sprint work because there is no expectation that the work they are sharing is their very best or most polished. They also often have fun giving each other feedback or discussing the widely different pieces of writing that usually result from these fast-paced, low-stakes assignments. Seeing such wide variations helps students understand the range of perspectives they could take when composing a single tweet, post, or image; students also get practice grounding their choices in audience considerations and rhetorical appeals as they explain their choices to their classmates.

As part of a longer assignment, teachers can integrate content management or project management practices and technologies into the process to mimic the kinds of distributed collaboration that takes place in the responsive workplace; this will also emphasize the much larger role that revision has in a typical writing and content-development process.
For instance, students can work in teams to be in charge of developing daily schedules for sharing work with peers and providing feedback on a common set of documents saved in collaborative software such as Google Docs. Students can develop guidelines for how content should be adapted in a more compressed time frame, what genre considerations should be retained, and what considerations can be ignored or adapted. Longer assignments can also be broken down into segments and workshopped in ways similar to what a software platform such as Eli Review recommends, which encourages earlier and more regular engagement with revision than is typical in the writing process (https://elireview.com/). Developed by writing faculty at Michigan State University, Eli Review recommends a writing process that includes 20 percent writing, 30 percent reviewing, and 50 percent revision, as opposed to the typical writing process, which follows a 60 percent writing, 20 percent reviewing, and 20 percent revising pattern.

We can also ask students to repurpose content both for other verbally oriented contexts and for multimodal and visual contexts. Instructors can prepare students for the mashing and integration of genres by playing with hybrid forms of presentation slide decks, reports, blog posts, and instructions-as-apps, and by modifying visual and verbal content across platforms, purposes, and audiences and within strict constraints (length, size, etc.). For example, as Lisa Dush suggests, we can ask students to take a long report and convert it into an infographic (189). We can also define a goal for students—for example, use the content from a report to attract new investors—and leave the means of reaching that goal open, so that students take responsibility for rhetorical decisions regarding the form of the content (Shipka 287). Through this process, students can further their understanding of the ways in which genres develop and evolve in response to complex rhetorical exigencies (Kain and Wardle).

As important as repurposing content is students’ exploration of the ways in which this process of multimodal editing reframes specific aspects of content, such as how content is persuasive or how it constructs ethos. Mays suggests having students examine how one element (such as ethos) functions in what he terms “a frozen context” (576) and track the changes in that element through different contexts (576). So, for example, we can ask students to trace changes in the ways that ethos is constructed as content moves from report to stock image to social media post to blog entry to infographic. Analyzing and reflecting on such changes can help students develop effective rhetorical strategies for multimodal editing.
Finally, teachers can help students learn how to analyze job ads and talk about how to demonstrate facility with valued characteristics such as collaboration, time management, independence/initiative, critical thinking, and detail orientation. Students can be encouraged to look beyond “writing” jobs in job searches and be aware that even those jobs labeled as “writing” may well include nontraditional products and content development processes, including writing-as-multimodal-editing. Most importantly, students can be made aware of the importance of their willingness to adapt to and learn new technologies, environments, composing/editing practices, and ways of managing and delivering content.

**Conclusion**

Our observations showed us that the workplace is, more than ever, an environment that requires the kind of rhetorical and critical communication skills that our students learn in our writing classrooms. However, just as scholars in the field have reconsidered their notions of effective writing to include multimodal composing, we should also now reconsider the process that writing follows, reconceiving it as a process of writing-as-multimodal-editing. In their daily lives, our students already engage in the kinds of writing-as-multimodal-editing that we observed in the workplace. They often edit their own videos, websites, and blogs, and repurpose writing for a wide range of platforms and channels. They often do this kind of writing-as-multimodal-editing within serious time and technology constraints, building off of content that their friends already shared, checking to see how that content has been received, and engaging in collaborative composing processes to generate and adapt new content for new purposes and audiences. As writing instructors, our goals should include showing students how to capitalize on those practices for professional purposes, while helping them to further cultivate rhetorical nuance, clarity in expression, and awareness of audience.

**Acknowledgments**

We would like to thank our study participants who agreed to be observed for this study. Their openness and cooperation allowed us to advance our knowledge of the writing workplace and pass those insights on to those who mentor our students in the field of writing studies. We would also like to thank the CCCC Research Initiative for their generous funding of this study.
Works Cited


Murphy, Avon. Introduction. Murphy and Sides, pp. 1–5.


Wardle, Elizabeth. “‘Mutt Genres’ and the Goal of FYC: Can We Help Students Write the Genres of the University?” College Composition and Communication, vol. 60, no. 4, 2009, pp. 765–89.


Winsor, Dorothy. Writing Like an Engineer: A Rhetorical Education. Routledge, 1996.
Claire Lauer
Claire Lauer is an associate professor of technical communication at Arizona State University. She researches how we engage public audiences in learning about science, and how people interact with and read data visualizations. She has also published on how we use language to describe technological change, how technology impacts idea generation and creative thinking, and how the work of writers has adapted within the ever-evolving technological workplace. She is the past chair of ACM’s Special Interest Group for the Design of Communication (SIGDOC) and serves as the vice chair of operations on the SGB Executive Council of the Association for Computing Machinery.

Eva Brumberger
Eva Brumberger is an associate professor and head of the technical communication program at Arizona State University, where she teaches courses in visual communication, editing, and global issues in technical communication. She has worked in the computer industry as a technical writer and continues to do freelance writing and editing. Her research interests include visual literacy, workplace and intercultural communication, and pedagogy. She has published in a variety of journals and serves on the editorial board of the Journal of Visual Literacy, Business and Professional Communication Quarterly, and Communication Design Quarterly.