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The Unexpected Rhetoric of Professional & Technical Writing

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THE UNEXPECTED RHETORIC OF PROFESSIONAL & TECHNICAL WRITING

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A Final Portfolio

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*The editing portfolio and the New Teacher Manual are separate files due to formatting conflicts with the standard written work. They are attached as separate files.

An Unexpected Journey: Analytical Narrative

When I clicked the "Submit" button for my application to the BGSU Professional Writing and Rhetoric English M.A., I felt a sense of satisfaction that I was on my way to achieving a goal that had been sidetracked when life got a bit too "lifey" to make it happen. And while I knew that a new way of understanding English beyond literature and composition would soon open for me, I felt comfort, the kind that comes from having some sense of familiarity with what's to come. After all, I had been teaching AP Language & Composition for years and its whole focus is rhetoric. I thought I knew what I was getting myself into, at least a little, so I was excited to deepen my understanding of rhetoric and bring new insight to my writing classroom. It turns out that I couldn't have been more wrong about what this program held for me or how I would use what I've learned, and for that, I am actually grateful. Odd, I know, yet this journey has led to personal and professional growth in unexpected ways.

I couldn't have anticipated that growth a couple of years ago, but I didn't go it alone. As life continued to be "lifey" for me, Professor Heba extended grace as every manner of trouble crept into my world. I had technical issues that obliterated my work, difficulty understanding new concepts, time constraints from a full-time job, family illnesses that required my time and my heart, a student suicide that left our school community reeling, a home purchase gone awry, and grief from the death of my father-in-law, the only dad I've had for 29 years. Even as I write this, our family has been shocked by the unexpected death of our aunt, so we have a funeral to attend right after Thanksgiving. Yet this is my life – and pretty much everyone's, to some degree, actually – so we have a choice to make: We can crumble or we can lean into the hardship and do the best we can. I chose the latter, as so many of us do.

While it would have been easier to crumble and forget about this degree, I am indebted to and grateful for Professor Heba's empathy and flexibility, which allowed me to lean into my program despite the difficulties. I am sure it annoyed him at times, but his grace along with Professor Hunter's have allowed me to finish my degree, and together they have reinforced for me what it means to be a teacher through their compassion. I thought I'd chosen what represented the familiar, yet I came away with something better than that – a sense of what I can accomplish when I stretch myself beyond comfort with courses like Science Writing and Linguistics, which represent writing and thinking that I had never been exposed to before. We all have challenges of some sort that we must cope with while living the other parts of our lives, so I appreciate that Professor Heba and Professor Hunter have challenged me intellectually and provided me with unexpected ways of seeing rhetoric while also having faith that I could achieve my goals. In retrospect, that new vision defines my choices within the program and my portfolio selections in particular, as each represents an area of growth from a place where discomfort had taken hold, eventually to be replaced by work I believe captures what I have learned throughout my studies.

Unexpected Beginnings

My first piece is a substantive research essay titled "Elements of website design and their effects on usability for end users," and it is the culmination of Resources & Research in Professional/Technical Writing, the second class in my master's program. The course and the work involved to produce this research writing represented a crash course in my utter discomfort. I am an English gal; I love language and the art in writing, and I revel in a well-turned phrase. This course was the antithesis of all of that, and even part way through, despite

Professor Heba's best efforts, I still struggled to clearly define technical communication, its writers and audiences, and its relative lack of "place" within some universities. I thought I had signed up for a program in rhetoric, and this wasn't it. At all. In fact, I seriously considered changing my M.A. specialization altogether until a conversation with Dr. Albertini convinced me that I was in the right place. Professor Heba's efforts also eventually helped me see what types of documents a technical writer produces beyond internal memos and policy, which made me uncomfortable with the realization of just how much I didn't know. After struggling through missteps about what to research, and knowing that I am a visual person, I launched myself into web design and website usability, two topics I knew nothing about. I wasn't even sure what usability meant, yet I found journal articles about it and several articles about websites and education. Suddenly, I had the familiar touchstone of education, and this became the basis for my substantive research, which represents my best writing about research to date.

I learned that design has much to do with who uses websites, though we as users don't put much thought into how and why that affects us when we visit a site. I also learned that the peer-reviewed research I read had nothing to do with me as that site visitor. Instead, it was geared to the people who design the sites; finally, the meaning of technical writing resonated. Understanding what it does and for whom it's written gave me new purpose in my research, and Professor Heba helped me see where I could create clarity for my readers and expand my thinking where necessary, resulting in a comprehensive primer on web design considerations. In revising further, suggestions from my peer reviewers and Professor Hunter helped me focus my revision on expansion of areas that would matter to readers, such as usability for

those with disabilities and how user emotion affects web usability, so I incorporated these suggestions as well. With several readers' insights and suggestions in mind, I revised from the beginning, creating further clarity in my wording and organization to ensure unity and cohesion to capture my thinking about the research clearly. While I won't ever actually write a manual for web designers, this piece captures key topics in usability that organizations should attend to when considering their website design, with particular applications in education. Even though this specific research is not directly applicable in my current teaching position, doing this work helped me understand the relation of technical communication to rhetoric, and it slowly eased my discomfort through a broader understanding of author purpose and audience differences. For this reason and because it demonstrates the strength of my research and analytical skills, I included it in my portfolio since it represents my strongest work. Of course, my discomfort wouldn't be at bay for long.

A shift in perspective: the audience/client combo

The Editing Portfolio included next is the final project from my Technical Editing course, an elective within my program. It illustrates what began as the height of my discomfort with technical document creation; finishing it provided much satisfaction. My discomfort arose from panic about where to find 20+ pages to edit since I am not in business or industry, and I knew that I had to include more than just documents I have created in education. Additionally, while I am a visual person, I am not particularly artistic or tech-savvy, so what I envision in my head does not always translate well to the page, which creates frustration that I don't always have a solution for and problems that I struggle to figure out. I was tasked with creating a professional, visually pleasing portfolio to use should I choose to

become an independent contractor. It is comprised of a reflection, an editing policy and agreement, a professional résumé, a client letter, and over 20 pages of technical documents that have been edited using a variety of technical editing strategies and summaries. I gathered technical documents from family and friends in the construction, architecture, and retail industries in addition to some from my job. I focused on utilizing an array of editing techniques from the course to highlight my editing skills, which requires a keen eye for detail and problem solving. I learned that there is much more to editing than most people realize, like knowing which questions to ask to lead the client in the right direction to create clear, concise documents. Editing encompasses rhetoric again in unexpected ways as the rhetorical transaction between reader, writer, and author becomes apparent.

An interesting aspect of editing that makes it difficult is the relationship between the editor and the client, who is both the audience and the writer. This runs counter to what most people know about editing since they tend to do their own editing and revision work on personal documents. Thus, when viewing the portfolio, readers will notice that as the editor I have not actually made the changes that I recommended to the "clients." The portfolio shows all of the document markups and editing comments intact due to the client/writer relationship, which requires that the editor summarize the changes in one of several ways, with the client/writer making final revision decisions. This relationship also prevents me as the editor from infusing my style into documents and from actually making the changes I recommend on the documents. This resulted in my not being able to follow the peer review suggestions to show editing and post-editing or final revisions of edited documents because as the editor I am not the one doing that revision work. While I had few suggestions for

improvement of the actual portfolio from Professor Heba due to it being in topnotch shape, I revised by following the main suggestion from Professor Hunter, which was to reframe my reflection to account for a shift in audience from Professor Heba to a reader who might access this portfolio in ScholarWorks. I changed my language to be less explicitly about the class itself and what I learned in that context, and I made it more about reflecting the editing portfolio itself.

I chose the Editing Portfolio for my final portfolio for two reasons. First, technical editing is an integral part of the technical writing process itself, without which little, if anything, would be published; it is therefore essential work to my program major of Professional Writing and Rhetoric. (Had I known what it was called at the time, I would have realized that I actually did one of the variations of technical editing with the website usability piece in my portfolio to get it into final form; as Professor Heba mentioned, it would be suitable for a conference paper or perhaps as a primer for website designers). Second, the Editing Portfolio is, in itself, an example of technical writing. It is a business-to-business piece of communication that demonstrates what organizations do in communication with one another; it again shows an expansion of what writing and rhetoric are as editors shift perspective on who audiences and writers are.

Professional and Technical Writing: doing what's right

My third portfolio piece is entitled "Technical & professional communication: The obligation of teaching ethics in PTW programs," which I wrote during my Professional/Technical Writing & Rhetoric course. This paper was born of my fascination with the topic of ethics as a whole, and my disappointment that the ethics elective course was

never actually offered during my program, so I chose to write about it when the opportunity arose for research. I chose this paper for my portfolio not only for its direct tie to what professional writing can and should encompass, but also because it represented a turning point in that I no longer felt discomfort at all with my program. I had a clear grasp of the purposes, audiences, and subjects of technical writing and I knew who was creating that writing. So, I pursued this research both in an effort to learn how organizations approach ethics with employees, and, in particular, to learn what, if anything, universities do to stem the tide of ethical violations we see in the news nearly daily. My goal was to determine if universities take on that task through teaching students how to write and edit ethically in professional settings.

What both the website usability and editing portfolio pieces reflect is a recognition that writing and editing don't occur in a vacuum; they both require consideration of ethics, so this portfolio piece intertwines those ideas, as does the final piece that follows. As an essential part of technical writing instruction, I argue that an ethics course should be required of all PTW programs. Professor Heba posed a question about how to address the competing values of organizations and audiences, which I address as part of my revisions. In addition, he suggested that I review a couple of technical writing books for how they cover ethics, which I have also incorporated into my revision. I also argue in my revision that while some PTW books do include a chapter on ethics, if society is to reduce unethical behavior, it is going to take more than a chapter in one course, but rather a stand-alone course. Additionally, per Professor Hunter's suggestions, I have revisited my argument to ensure that my ideas are central and that they are backed by solid reasoning that connects my thinking to the source

material so as not to dominate a shorter paper with sources. As I typically have done with all of my revisions, I started at the beginning before addressing content suggestions to review for clarity of expression and to ensure that my ideas come through well so that I can then address content in a clean, cohesive piece. I then made the content changes suggested, expanding my conclusion to leave a compelling idea of why ethics is crucial to technical writing instruction in order to round out my revision, as it was a comment that Professor Hunter and a peer reviewer made.

Interestingly, this research has made its way into my teaching of AP Language & Composition, as I allow students to write on topics of their choice and work with them to create sound arguments. Their topic choices dictate their audiences, and I don't allow them to use logical fallacies just to serve their own argumentative ends, so we discuss the idea of ethics in writing as part of that instruction, and I have referenced aspects of this research in class to that end. More importantly, though, this ethics work informed the course proposal I wrote for a new class that infuses aspects of traditional English with professional and technical writing. The proposal itself demonstrates a symbiotic relationship between technical writing, editing, and ethics; it is a piece of technical writing for which I used technical editing skills with the purpose of presenting it to my curriculum department. Within the syllabus, the infusion of ethics standards pervades the course content, showing once again the unexpected intertwining and expansion of my understanding of rhetoric. Side note: I am awaiting word on the outcome of that proposal to see if the course will be offered next year.

Putting it all together: a dynamic rhetorical transaction

By the time I started creating my New Teacher Manual, the final piece in my portfolio, everything I had learned had crystalized. I was so excited to create a genuine piece of technical writing for an authentic audience who would actually use it. What is especially compelling for me about this piece is that the manual shows that I have come full circle from the website usability substantive research piece that made me so uncomfortable, not to mention the visual aspects that haunted me with the Editing Portfolio. I chose this piece as a late entry to my portfolio after much consideration and reflection about what I have learned and how my work connects. In consultation with Professor Hunter, I determined that this New Teacher Manual makes more sense than my initial fourth piece given its clear connection with my early work and later courses, all of which informed this final piece. For revision, Professor Heba recommended specific formatting changes that benefit the reader, which I have incorporated into the document. In addition, I have conducted my own usability test among colleagues in my building to create authentic revisions that will directly enhance the effectiveness and efficiency of the document. I have also expanded certain areas, such as key contract information, based on conversations with teachers and the most common contractual elements they ask about, and I double-checked final formatting per Professor Hunter's recommendations. In the beginning, my lack of understanding about key aspects of technical writing nearly paralyzed me. For this manual, I had to do it all: determine a technical writing document to create for a specific audience, decide on relevant content, gather the information, write the document, format it in a visually appealing way, do a comprehensive edit, and create and administer a usability test to inform revisions of the document. While a website and an

online document aren't exactly the same, many of the considerations from my website usability research are in play, including how a specific group of people will access it, ethical and responsible curation of content, how long it takes to complete specific tasks, and visual appeal, including color. The circle is complete.

I am not sure yet what my future holds. I may continue teaching AP Language & Comp and hope that my professional writing course proposal comes to fruition. I may seek work at a community college that allows me to teach both "typical" freshman composition and professional & technical writing. I may engage in freelance editing because I think editing is actually fun. While I don't know the future, I do know that what terrified me to the point of nearly changing my major has now become a source of pride. I chose these pieces because together they show that I know what I am doing. I have solid, marketable professional writing and rhetoric skills that demonstrate my knowledge that rhetoric goes well beyond the scope of essays, letters, and speeches; it underpins virtually all conscious communication, which is why it has a rightful place within professional writing and is the backbone of the work I have done in this program. I have learned well to embrace the unexpected and lean into the discomfort.

Elements of website design and their effects on usability for end users

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Abstract

Websites are an integral part of any organization from government to business to education. The studies cited within this review of literature focus on six main areas of concern as it relates to web design and its impact: user experience, visual impact of design, user perceptions of organizations, general usability issues, usability for people with disabilities, impact of language use, and website interactivity and user affect. The goal of the research is to provide a comprehensive examination of key aspects of website design and their impacts for organizations designing websites, and in particular education-related sites. Research reveals that some variances exist dependent upon the nature of the website (commercial, nonprofit, government, etc.), but that key elements such as user experience and perceptions users have about organizations based on website experience cross all genres of websites. The research has broad-based appeal to any organization that seeks high-quality web design for optimal user experience and includes potential research methods for organizations undertaking usability studies of their own. Applicability to organizations is wide-ranging, speaking to the paramount need for audience awareness in all communication arenas, including web design.

    Keywords: usability, user experience, web design

Elements of website design and their effects on usability for end users

Websites are a ubiquitous part of daily life, and rarely does a day go by that someone doesn't respond to a question with, "I don't know – let's google it," and off they go in search of information, products, or resources after landing on a website. For this reason, organizations must maintain an online presence, whether through social media to keep the name of the organization in front of consumers and information seekers or through websites by which people engage with the organization to get what they need. How effective these sites are, though, is a separate issue. It is not enough simply to have a website; virtually everyone has visited sites that are eternally "under construction" or been frustrated by a site's lack of intuitive navigation. Routine users and creators of sites understand that user experience is crucial. The concept of website usability thus reveals the purpose of the following research: Websites are integral to daily life and a conscious effort by web designers to make websites accessible and stress-free for patrons cannot be overstated, so organizations must create websites with the end users in mind. Whether a website is for a commercial business, a nonprofit organization, or a public entity such as government or schools, the design must meet the needs of the consumers, clients, or, in the case of a public entity, the taxpayers who inevitably expect something for their money. It is especially pertinent, though perhaps subconscious, that people (rightly) want websites that represent public entities that they finance with their tax dollars to be efficient and easily usable. In that vein, the following work pays particular attention to public school websites and is a compilation of relevant research pertinent to key elements of web design in the following areas:

- user experience

- visual impact of design

- user perceptions of organizations

- general usability issues

- usability for people with disabilities

- impact of language use on websites

- website interactivity and user affect.

The goal of this research is to provide information that any organization could utilize in the design of an effective website with the end user in mind; however, specific attention to aspects that affect public schools, including universities, is provided. The research also concludes with potential research methodology for organizations that seek to undertake usability testing.

User Experience

According to Nielson (2012), usability not only evaluates how easy user interfaces are to interact with, but also assesses the methods that organizations use when designing a website for improving ease of use. Usability, therefore, encompasses five quality components, including "learnability, efficiency, memorability, errors, and satisfaction," and it ultimately answers the question, "Does it do what users need?" Each of the components of usability focuses on how well users can interact with the website, on both first and subsequent uses, and if they are likely to make errors that will impede their ability to accomplish their goals when visiting a site. For example, if a visitor to a school website needs to locate specific documents such as medical or withdrawal forms, the site's overall usability would be

determined by how easily the person could find the desired documents and how many navigational errors would be made in the attempt to find what he or she is looking for.

Given that public schools and universities are tax-funded entities, it makes sense that the U.S. Government issues a document about effective web design relevant to user experience. The number of people accessing the internet continues to increase, so the Government Services Administration (GSA) article "Research-Based Web Design & Usability" provides design information on everything from download times and how pages print to usable formats; for web designers, however, a key component involves design that will enhance user experience through recognition of working memory limitations. The GSA article states that

> Users can remember relatively few items of information, for a relatively short period of time. When users must remember information on one Web page for use on another page or another location on the same page, they can only remember about three or four items for a few seconds. If users must make comparisons, it is best to have the items being compared side-by-side so that users do not have to remember information—even for a short period of time. (p. 13).

This information is critical in enhancing user experience, which in turn affects perceptions of the organization. It tells web designers that they should organize and present information in spatially logical ways on a page to ensure that related information is together for optimal use. Additionally, it is important that websites standardize task sequences so that if users do need to navigate from one page to the next they don't experience confusion from different page designs. For example, if a parent has two children in different schools within a school district,

going to the district's website should allow the parent to access necessary information for the

different schools in the same ways. The GSA sates that "Users learn certain sequences of

behaviors and perform best when they can be reliably repeated. This means, for instance, that

users may become accustomed to looking in either the left or right panels for additional

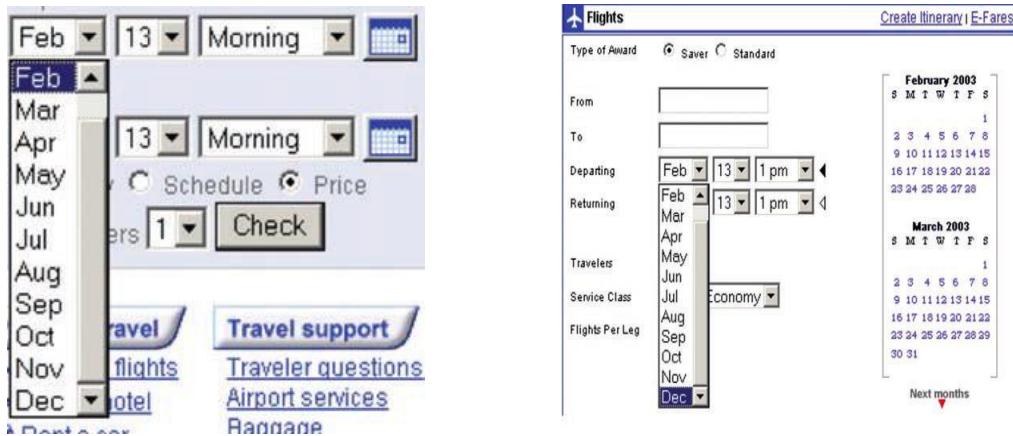information or accessing dates and other information in predictable ways. Users become

Fig. 1
Drop-down boxes for date selection are consistent across the site, but one page places
calendars in 'pop-up' windows, whereas other pages on the site show the calendars. This
inconsistency can confuse users, and web designers should avoid it and be consistent.

familiar with the steps in a search or checkout process. (p. 11). See Fig. 1. As the graphic

indicates, user frustration could be avoided on this particular travel site simply by making a

common feature like date navigation consistent across the site. The same holds true for any

website's common features.

Despite being an older study, Calongne (2001) corroborates the recent GSA article in

finding that "Content includes the solutions and strategies employed to make it easy for the

user to accomplish important tasks, such as information retrieval and navigation" (p. 41).

Both the GSA site and Calongne (2001) provide very specific usability design practices,

including assessing whether usability goals have been met through the following criteria:
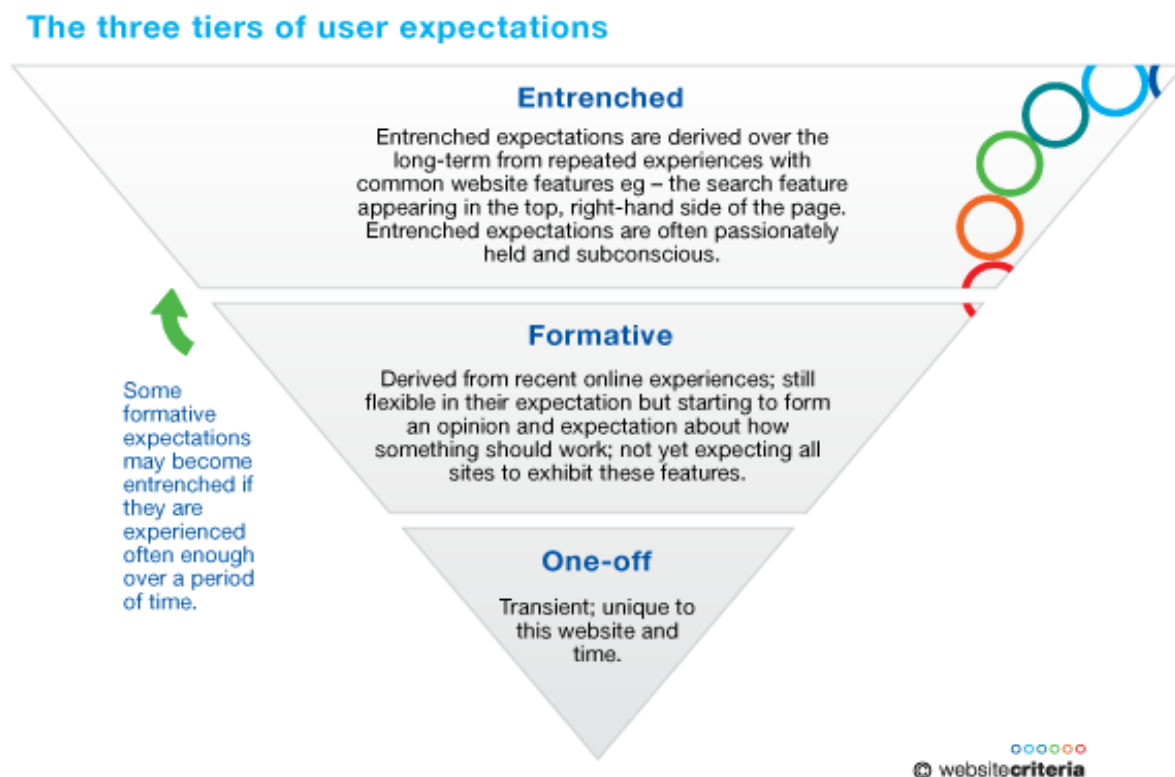
- How long it takes each page to load?

- How responsive is the system to a user's request?

- Does the user go to the wrong web pages when seeking specific information?

- Are there navigation problems?

- Is the message unclear or hard to understand?

- Does the site support the user's behavior during the performance of these tasks? (p. 44).

Consistency across various studies, expert analyses, and documents underscore the importance of consistent web design for optimal user experience.

Factors such as aptitude also influence user experience. The more experienced the user of a site is, the less tolerant he or she becomes of poor design. Fig. 2 shows that users' expectations of a website vary significantly based on how often they visit a particular site; their expectations can be categorized as one-offs, formative, and entrenched. It is therefore incumbent upon organizations to recognize how their web designs affect various categories of users. **One-off users** have few expectations of how to navigate a site or what to expect from it, thus they don't expect to navigate any particular site in the same ways that they might navigate other sites. People with few expectations of a school website, for example, may include those with little overall navigation experience or those new to the site who may visit it to find information about a play-off game or enrollment information due to relocation. Those with **formative expectations** have more experience with website navigation and therefore possess higher expectations for consistency; however, they are not resistant to change and recognize that not all websites operate in the same ways. Their overall expectations do

include design and navigation consistency, so this category may consist of parents and students who visit various school sites for information with some regularity. Those with **entrenched expectations** have significant website navigation experience and exhibit little flexibility in what they expect from a site, and may even express frustration when common components are not located in similar places. Smith (2008) agrees that, "[Organizations] need to identify the characteristics that might influence expectations of a consumer's ability to understand and use it." Web audiences might include current and potential clients or customers, the general public, students, researchers, and even tourists. What this means for a school district is that web designers must be cognizant of who is using the website, as it may not only be parents and students.

Fig. 2

The three tiers of user expectations

Entrenched

Entrenched expectations are derived over the long-term from repeated experiences with common website features eg – the search feature appearing in the top, right-hand side of the page. Entrenched expectations are often passionately held and subconscious.

Formative

Derived from recent online experiences; still flexible in their expectation but starting to form an opinion and expectation about how something should work; not yet expecting all sites to exhibit these features.

Some formative expectations may become entrenched if they are experienced often enough over a period of time.

One-off

Transient; unique to this website and time.

© website**criteria**

In the Olentangy Local School District, for example, officials pay particular attention to long-time and older residents' perceptions of the district because the rapid growth in student population has resulted in building and operating over a dozen new schools in the last 15 years, which has had an outsized effect on these residents' tax burden. The district provides opportunities for older, long-term residents to engage in district activities at a discount, and it is possible that these residents will seek information about the activities from the website, thus, ease of use is important to that subset of users, though this is not specifically evident through its web design. K. Davis, Communications Director of Olentangy Local Schools, revealed, however, that despite their best efforts to be accommodating to users of all ages, school districts do not always have as much control over design as one might expect they would. Davis indicated that while specific web content is a local decision, the design of the district's website actually falls to Blackboard, the district's vendor (personal communication, March 23, 2018). The result is less control over user experience, and while those who create content for the website are cognizant of it, they have little control over how to resolve the issue if a user has problems or expresses frustration to the district about an inability to navigate the site easily.

Visual impact of design on end users

Part of the effectiveness of a website, consumer or otherwise, can be attributed to its overall visual design, which may increase users' perceptions of its ease of use as well. Mapping, according to Coyle, Mendelson, and Kim (2008), refers to "the ability of a system to map its controls to changes in the mediated environment in a natural and predictable manner" is a critical part of visual design (p. 42). As simple as it seems, Coyle et al. (2008)

found that "Clearly labeled navigation bars are one of the easiest ways to create a satisfying

navigational experience" (p. 41). Additionally, the authors state that "clickable images, which

allow online consumers to manipulate their environment in an intuitive way" also enhance

user experience in positive ways, while faulty mapping has the potential to confuse and

frustrate users (Coyle, Mendelson, & Kim, 2008, p. 42). Thus, an appealing, usable website

cannot be divorced from its visual components. Also relevant to page layout, GSA (2018)

indicates that enabling users to skip repetitive navigation links is a way to enhance user

experience visually because it helps to avoid the tedium and time associated with waiting for

repeated links to be read (p. 24).

There is more to the visual aspect of a website, however, than the controls and

navigation. Aspects such as page layout, graphics, color, and images have an impact on user

satisfaction, too. Color, in particular, can have a profound effect that some designers do not

always consider, though they should. According to the undated GSA article "Research-Based

Web Design & Usability," color should not be the only indicator of critical activities on a

website due to colorblindness issues among users, with up to eight percent of males and about

half of a percent of females having difficulty in discriminating colors (p. 24). This is important

for school districts in particular to ensure that key information is available to as many users of

their sites as possible. Accessibility concerns for people with visual impairments leaves most

districts with a lack of options for accommodating those needs beyond calling the school

district. Because websites are, by default, visual tools, K. Davis indicated that district websites

have few alternatives for visually impaired users, but Olentangy Schools does offer a link that

takes users to a YouTube channel, which provides access to school board meetings if visually

impaired users have someone who can help them access the link (personal communication, March 23, 2018).

Links and other visual text features of a website are important, yet most web users think of visual aspects in terms of graphics and images. These features serve to assist most users, including those who may not be native English speakers. Graphics and images apply not just to an organization's logo, but also to video, audio, animations, and other images. Designers must be careful not to assume that visual images speak for themselves, however. Figure 3 from GSA shows the effective use of labeling that enhances user experience, especially when attempting to understand clickable image links. (p. 144). The importance of visual images cannot be overstated; as Kiekel and Kirk (2011) frame it, "visuals are quickly displacing the linguistic in social importance, especially in the design of websites" (p. 68). School districts in particular are environments in which digital natives are the norm and the phenomenon will continue to increase over time, so web designers must make the visual components of site design a priority.
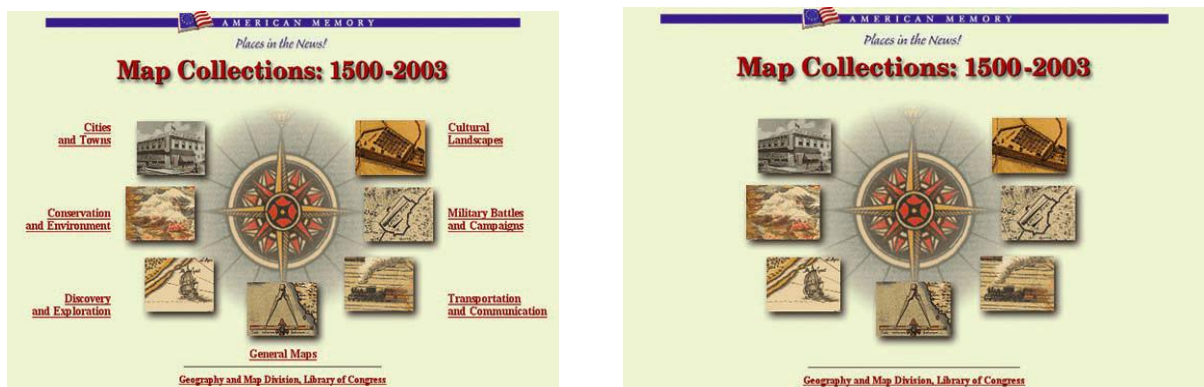

Fig. 3. Labeled, clickable links enhance user experience (GSA, p. 144).

Perceptions and impact of organization from user experience

Though research about user perceptions of an organization is less pervasive than other areas of usability, Dabrowski, Basinska, and Marcin (2014) reveal in their paper about the impact of website usability on user trust that perceptions do matter and they link directly to how users perceive the organizations with which they interact online. While loyalty to a school district isn't the same as it is to a business that relies on people repeatedly buying a product, and while it also isn't easy for dissatisfied parents to just pick up and leave, trust and satisfaction are still important. Most school districts rely on local funding through bond and tax levies to operate, thus taxpayers are "purchasing" a district's product in a different way. Web designers must keep that in mind in their design given that online presence is more important than ever. Dabrowski et al. (2014) found that

four website attributes relate positively to customer satisfaction with the website. These were visual clarity, customer care, demonstration of service and user guidance. Regarding customer trust, we observed that customer care, information content and visual clarity are drivers of trust. Both satisfaction and trust positively influence the loyalty of customers to a website. (p. 22).

Though based in customer service, high quality user experiences do cross genres, specifically as it relates to content and visual impact. Additionally, Dabrowski et al. (2014) found that "a website can be regarded as an interactive IT solution which mediates between customers and a service provider, thus it is a part of the service provided. Therefore, by customers' satisfaction from the website we understand the extent to which a website fulfills user expectations (p. 24). Everett (2013) corroborates the findings of Dabrowski et al., and, in

addition, specifically addresses entities with limited resources, such as school districts. Everett (2013) finds that "a Web site that is usable in terms of navigation can still have credibility issues that reflect negatively on an organization" (p. 118).

Specifically, Everett (2013) demonstrates that credibility may become increasingly important if an organization does not require a high level of web visitor motivation to visit the site. The bottom line is that first impressions by web visitors may be quick and detrimental to an organization if prominent site elements do not yield an interpretation of credibility on first or subsequent visits, thus affecting overall credibility (p. 121). The research offers a specific six-step credibility testing mechanism by which organizations with limited resources can effectively enhance credibility, which would be particularly useful for government entities such as school districts that rely heavily on taxpayer funding. Everett's (2014) research found that it

> "can help determine web visitor credibility judgments because it doesn't require sophisticated software, a tremendous investment of time, or expensive research methods. Organizations with limited staffing and resources can use this tool in a cost-effective, efficient manner and successfully yield information for improving a website and web visitor credibility judgments (p. 118).

The research focused primarily on small business and nonprofit organizations, and the ideas are transferrable in the sense that school website users don't have specific motivations in similar ways to other nonprofit organizations because they are not on the sites to buy anything.

The undated GSA document indicates specific ways to optimize website credibility,

among them the following:

- Provide a useful set of frequently asked questions (FAQ) and answers

- Ensure the Web site is arranged in a logical way

- Ensure the site looks professionally designed

- Provide an archive of past content (where appropriate)

- Ensure the site is as up-to-date as possible

- Provide links to outside sources and materials (p. 10).

In a conversation with K. Davis about whether the functionality and usability of the district website enhances or detracts from the credibility of the district, she stated that "it most certainly enhances the credibility, and it is something we need to address for a variety of reasons, including legal, aesthetic and functional" (personal communication, March 23, 2018). Public perception, or "optics" in current parlance, is very important to school districts as they are financially beholden to the end users of their websites and need to be good stewards of taxpayer money. Any negative interactions, whether human or computer generated affect that perception. One other way to positively influence perception is through the inclusion of content in multiple languages, and this is particularly important in school districts tasked with educating children from an array of backgrounds. Olentangy, for instance includes translations into 11 different languages, though that is just a fraction of those spoken by students and their families. Nonetheless, it does influence perceptions when parents can interact with the district through web content in their native languages.

General Usability Issues

Having considered issues such as visual impact, accessibility, and user perceptions of organizations relevant to user experience, a more general look at usability issues is in order; despite some of the concepts intertwining, extensive research exists about how users interact with websites. While a general overview is important, research also exists specific to academic website usability that bears discussion. Ganiyu, Amit Joseph, and Usman (2014) conducted a study based on university website experiences through which researchers measured website usability based on content, organization and readability, navigation and links, user interface design, performance, and effectiveness. Results identified strengths and weaknesses associated with each website, and even though it is at the university level, "this model can serve as a model for evaluating website usability in order to know if a particular website has met the need of its intended users and also assist the web designers in building more usable university websites" (p. 28). This is useful information for school districts that have limited resources because the design model has already been done and found to be effective. Though public school districts may have limited design input, they do have the ability to create a focus group to conduct usability testing of their websites and provide that information to their vendors as a way to advocate for changes that would benefit both the district and the vendor. School districts do have a choice of vendors, so seeking those most likely to accommodate what they want makes sense, and vendors would do well to listen to client feedback to ensure customer satisfaction, creating a win-win situation.

Mentes and Aykut (2014) also conducted a study of university websites and several

aspects corroborate the Ganiyu et al. findings. The same factors of usability were revealed, and in addition, the study corroborated the findings about user perceptions that Dabrowski et al. (2014) found for consumer websites, further reinforcing the idea that usability issues cross organizational genres. Mentes and Aykut (2014) found that factors such as gender make a difference in usability, with female subjects' perceptions more attuned to visual complexities than male subjects were (p. 66). The study also further reinforces Calongne's 2001 findings that web experience is a significant factor in both usability and perceptions of organizations, which influences credibility (p. 63). Samsur and Zabed (2013) also focused on academic web design, creating a longitudinal study of usability factors relevant to university website design, and found that educational websites must realize the importance of maintaining up-to-date and accessible information on their websites so that students can benefit to the maximum from the information opportunities afforded by the web. (p. 46). This should not come as a surprise to any organization, whether utilized by students or adults, consumers or taxpayers. Results of the study showed that "five factors are considered important for achieving usability: Interactivity and functionality; navigation, searching and interface attractiveness; accuracy, currency and authority of information; accessibility, understandability, learnability and operability; and efficiency and reliability" (p. 40). This is in line with other similar studies, showing that any organization should attend to these concerns for their websites.

Finally, regarding general usability issues, the undated GSA document indicates the importance of usability testing, and specifically emphasizes retesting after adjustments have been made from the first usability test (p. 188). Nielsen (2012) agrees with this finding, and suggests that "to identify a design's most important usability problems, testing 5 users is

typically enough. Rather than run a big, expensive study, it's a better use of resources to run many small tests and revise the design between each one so you can fix the usability flaws as you identify them." This directly correlates with the GSA document, which also advocates iterative design as the best way to increase the quality of user experience. Nielsen (2012) states, "The more versions and interface ideas you test with users, the better." This iterative quality is further emphasized within Olentangy Schools through an interview with K. Davis who indicated that website visitors have contacted the district about problems with finding information. Davis stated, "we routinely reassess how information is organized and presented as a result. Once the consultants have finished their work, we will assess and prioritize what aspects of our brand need to be addressed and how that will look on the website" (personal communication, March 23, 2018). The body of research indicating the importance of usability testing and organizations' responsiveness to concerns is critical to website usability, and the ability to make adjustments quickly is important due to users' perceptions when problems are present.

Usability for people with disabilities

Clearly, usability issues are important; however, given that organizations must meet the requirements of the Americans with Disabilities Act in a variety of ways, web designers must consider people with disabilities, and in particular, those with visual disabilities since most people interact with websites visually. This is a real concern, as indicated by Solovieva and Brock (2014). In an evaluation of a major university website, researchers' results "indicated that only 51% of 509 web pages passed automated web accessibility tests and only 35% passed using the WAVE Accessibility Tool for compliance, a more rigorous evaluation

level" (p. 125). Discussing demographics for web users with visual disabilities, K. Davis indicated that problems with access to the district website have resulted in Olentangy's engagement in a lawsuit over an ADA complaint due to accessibility issues, thereby emphasizing the importance of maintaining an accessible website. Davis said that at any given time, most districts are involved of some type of lawsuit, and accessibility issues are becoming more common as people seek equity in access to all aspects of education (personal communication, March 23, 2018).

Further emphasizing this point, Youngblood's (2013) article states that web designers must understand the factors that make designs usable to audiences with disabilities and also that "web developers can make web design usable to audiences with visual disabilities, specifically through emulation of those experiences… it is necessary that they understand accessibility standards for all users" (p. 209). Youngblood indicates that web developers should check for accessibility and emulate screen-reader output tools by introducing real users and their experiences to create authentic solutions to real issues facing users with disabilities. In addition to issues related to color discussed earlier, GSA assigns significant importance to provision of assistive technologies so that users with disabilities can complete online forms since much information is collected that way, stating that "all users should be able to access forms and interact with field elements such as radio buttons and text boxes" (p. 23).

While not considered a disability per se, age also plays a role in usability, and it frequently encompasses cognitive, hearing, and vision issues associated with disabilities. Romano Bergstrom, Olmsted-Hawala, and Jans (2013) capture this idea in their study,

acknowledging that older adults typically are not taken into account during website design. This has an interesting application in the Olentangy School District, which has made a concerted effort to appeal to older adults, such as seeking their input in naming schools, specifically because the district is rapidly growing and much of the development impacts these longtime residents in the form of increased taxes, as previously mentioned. The district offers all older residents free admission to theater productions, athletic events, art shows and other events, but little specific consideration has been given to how they might interact with the district website to obtain information about these benefits. Web design that attends to particular issues older people have with navigation while also maintaining benefits to all users would be worthy of consideration. Romano Bergstrom et al.'s (2013) study found that

> older participants had lower accuracy… took longer to complete tasks compared to younger participants, they looked at the central part of the screen more frequently than younger participants… and they looked at the peripheral left part of the screen less frequently and took longer to first look at the peripheral top part of the screen than younger participants. (p. 541).

This information is important for web designers to consider and the study provided useful takeaways for design including "repetition of important content, clean and de-cluttered layout, and reduction of distracters that may draw older users' eyes to a part of the screen that does not provide adequate information" (p. 547). Additionally, those who conduct usability testing should consider the following:

- Including older adults in user experience research
- Including eye tracking in user experience research to learn where users are looking.

• Including tasks in usability testing that assess various parts of the page, such as peripheral navigation elements and central parts of the screen.

As the populace ages, Bergstrom Romano et al. (2013) remind readers that quality of life hinges on having a sense of control over one's life, and online interaction is part of that; therefore, the ability of older adults and people with disabilities to engage in online activity is essential for their wellbeing (p. 547).

Impact of language use

Despite all prior discussion, the issue of language use cannot be ignored, as text is, in fact, an integral part of any website. Though associated with library websites, Gillis's (2017) primary study goal was to determine the impact of word choice on usability. Gillis found that "language can indeed act as a barrier to users of academic library websites" (p. 5). Again, while associated with library websites, it isn't a stretch to see applicability in other academically oriented websites as well. The research subjects varied in age and were all searching for resources, which is a frequent task on school-related websites as well. Gillis determined that "finding language that is generic enough for all users to understand is difficult to do, and even widely understood words can have different meanings to different users (p. 18).

This concept crosses website genres and is an important factor in site content. "SpyreStudios" (2015), a web design and development magazine whose primary function relates to business, indicates that language use is of primary importance, stating "regardless of whether the website is a corporate site, a government site, an eCommerce site, a portfolio

site or just a blog, it exists to deliver visitors a clear, unified message. The more effectively and clearly a website communicates with visitors, the more helpful it is in marketing of your business online." While a school district is not "marketing a business" in the same sense that a store does, it still has a public face and an online presence, as evidenced by the rebranding efforts that Olentangy Schools engaged in. Thus, how organizations communicate information is still vitally important and web designers cannot ignore the impact of language and its accessibility to all site visitors. As "SpyreStudios" (2015) indicates, "Essentially, marketing is not about how beautiful is the design of a website, it's rather about how well the website communicates with visitors." The Olentangy Schools website designers have an awareness of this, not only with its rebranding and ADA effort, but also in terms of accessibility for those who speak other languages, as previously mentioned. K. Davis indicated that she was unaware of language barriers, mentioning the translation feature of the website that allows users to translate content into eleven languages, including Arabic, Russian, German, and Chinese (personal communication, March 23, 2018).

Website interactivity and affect

Understanding the overall impact of a website on users is important, and research exists that allows web designers to understand how a site affects users' emotions, specifically as it relates to searching a website for information. First impressions, however, matter. Liqiong and Poole's (2010) research showed "a web user's initial emotional responses evoked by the visual complexity and order design features of a webpage will have carry-over effects on subsequent approach behavior toward the website" indicating that the more negative the emotion associated with navigating the website, the less positive future interactions are likely

to be. (p. 710). This is important in conjunction with research from Wilkie, Romance, and Rosendale (2012), who conducted a usability study of university websites that investigated the reasons for affective responses of end users' success or failure during website searches. Wilkie et al. (2012) state that "knowing the type of emotion experienced is important, but knowing *why* a person feels a certain way may yield even more valuable information for website designers" (p. 712). While university based, a correlation may exist with public school district websites due to similarities in how sites are used. Users reported a variety of reasons for their emotional responses, which can provide designers "a glimpse as to how design errors and navigational depth affect end-users' perceptions about usability" (p.711). Wilkie et al. (2012) categorized emotions into four broad areas of associated with responses and facial expressions of satisfaction (happiness), frustration (anger), anxiety (fear), and confusion (self-conscious distress). "Results indicated that users do indeed have emotional responses to web searches," yet "positive feelings do not necessarily occur as a result of successful task performance" due to the effort required to achieve success (p. 716). Clearly, the takeaway is to design websites that maximize intuitive, successful navigation and searching with minimal effort in order to avoid frustration and other negative emotions for end users.

Possible Research Methods

Research best serves the public through concrete application, and research from Elling, Lentz, and deJong (2010) provides those opportunities through usable research methods that various entities can employ. One key way to capture usable information about the effectiveness of a web design is to seek feedback from end users. In Elling et al.'s article, researchers examined "to what extent users are able to provide useful comments on

informational Web sites. Results showed that it is important to keep the feedback tools both

simple and attractive so that users will be able and willing to provide useful feedback on Web

site pages" (p. 171). This provides quick, authentic data that an organization can use to adjust

websites in order to enhance user experiences, and ready-made options are available, such as

In Focus and opinionlab (Elling, Lentz & deJong, p. 172). Opinion forms can provide useful

data and are relatively cost effective, but if they are too complicated, as in the OpinionLab

form in Fig. 4, they won't yield usable results because users will become frustrated or simply

not provide the information.

Fig. 4. The opinionlab form is more complicated than some options.

Conclusions

Effective web design requires much more than a visually pleasing site for visitors to go

to access information; rather, it requires a purposeful and comprehensive assessment of all

aspects of a website to ensure that end users can find what they are looking for. It is essential

that web designers and technical writers collaborate on both visual and written aspects of a website to effectively meet the needs of organizations, and ultimately end users. Being familiar with specific usability issues for "typical" or expected users as well as those with disabilities is important, as is recognition of how older people engage with websites. User experiences are integrally linked to emotional reactions while interacting with websites and the impacts of perceptions on an organization cannot be understated. This means that designers and writers must be ever cognizant of both visual impacts and the impact of language use as they develop or redesign websites. Relatively simple methods to gather data on usability exist, from iterative five-person usability studies to online feedback forms, and organizations of all types would do well to examine those that provide the best information for their purposes. The most applicable aspects of the research indicate that an awareness of audience is paramount. With an adaptable mindset, practitioners can meet the needs of their students, their web users or any other audience for which an understanding of the complementary aspects of visual and written communication coincide.

Images

Fig. 1

U.S. Department of Health and Human Services. (n.d.). Research-Based Web Design & Usability

Guidelines. HHS Publication No. 0-16-076270-7. Washington, DC: U.S. Government

Printing Office.

Fig. 2

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from

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Fig. 3

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Fig. 4

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Technical & Professional Communication: The obligation of teaching

ethics in PTW programs

While ethics seem to be in short supply recently, the storm has brewed for quite some time. From major ethics violations like the Enron scandal and Bernie Madoff's Ponzi scheme to lesser-known examples of pastors preaching honesty while stealing from parishioners or Texas teachers "helping" students on high-stakes tests, ethics have been lacking for some time. Regardless of the situation or degree of damage, the common denominator is the lack of moral compass that compels some people to willfully violate public trust. It seems impossible that a paper trail of communication doesn't exist or that certain people weren't responsible for the manipulation of internal documents in some of these scenarios. After all, someone within any given organization directs communication and is responsible for telling others what communication to generate for public consumption. The practice of unethical communication is so pervasive that euphemistic terms such as "damage control" and "risk management" exist. We frequently hear of organizations going into "damage control" mode to mitigate the fallout from leaked communications or otherwise unsavory documents that paint an organization poorly.

Because unethical practices persist within many organizations with little sign of abating, it is incumbent upon universities to teach ethics in the professional and technical writing (PTW) realms to stem the tide of unethical communication, which will benefit the public as well as the writers and organizations themselves. While professors can't force students to possess or abide by a moral compass, their curriculum and instruction can – and should – infuse ethics components that requires students to consider the ethical implications

of their communication practices within the contexts of their courses and, hopefully, their future jobs.

Understanding how to approach ethics instruction is critical. In an article for the *Journal of Business and Technical Communication*, David Russell confronts the two questions of professional writing: to what extent should PTW coursework serve the needs of business and to what extent, if any, should ethics be taught? (84). Technical communication at its core serves businesses and is often business-to-business in nature, but that doesn't mean it cannot be done ethically. Russell believes that all teachers should advocate for ethical behavior, but he also states that instructors are "poised between two cultures," and often foist their own value conflicts on students; he therefore suggests that they need to examine their own ethics and ethos as instructors (88). This makes sense, but an examination of one's own ethics or place within the technical writing realm shouldn't preclude an instructor from being able to discuss the implications of unethical communication unless the instructor has engaged in those practices; only then would it be problematic. Through case studies of high-profile situations that ask students to examine the real damage that has been done via unethical communication, instructors could show why ethics matter. This could mean, for example, that students study the implications of communication failures surrounding the BP oil spill and the long-term implications on the business and environmental ends of the spectrum. They could also discuss the ethics of the communication surrounding Bernie Madoff's business that resulted in real people losing their life savings and sometimes taking their own lives from despair. Instructors could also ask students to create their own hypothetical ethical dilemmas to sort out and further dig into the topic both individually and in groups.

By approaching instruction this way, instructors could navigate the tensions that exist between ethics and business practices that often require communication that solely benefits business; this would allow technical writers to think through what they would do with that type of request. Russell also acknowledges that "there is sometimes conflict between the interests of an individual and the common good… and the goal should be "to teach thoughtful practice in one or more of those professional communities as a way of helping students find empowerment through participating effectively in the discourse of those professions and thus the community as a whole" (91). Russell's seemingly contradictory position underscores the dilemma that PTW instructors face, but with little or no instruction, students lack guidance from which to operate; instructors who choose the path of least resistance actually abdicate their responsibility to fully educate students on the benefits of ethical behavior. They also lose the opportunity to show why solely self-serving actions don't beneift the organzation or the indivisual.

While it is true that some technical writing programs offer an elective ethics course and that most technical writing program textbooks at least touch on ethics instruction, in most cases the topic receives a chapter at most when students would be better served by a required course. Instruction that fully fleshes out what ethical violations look like in all their iterations and the implications of those violations shows students that a fine line might sometimes exist. Exposure to the different ways that ethics can be followed is important enough to study thoroughly. This requirement would benefit business in the end as well because they would know that they are drawing from a pool of technical communicators who understand ethics.

An examination of three technical writing texts shows the stark differences that exist in ethics instruction within textbooks. The first text, Mike Markel's *Technical Communication*, 10th ed., dedicates its second chapter to ethical and legal considerations in technical writing. This chapter comprises twenty pages of the 754-page textbook but given the wide-ranging implications of unethical communication, it isn't enough. The chapter discusses the seemingly competing ideas of loyalty to a company and obligations to the public, which should give students pause about how they will handle requests to be dishonest in communication in order to preserve a company's interests. In general, the text provides multiple ideas ranging from obeying copyright law to principles for ethical communication that students should consider, but none of these topics is given in-depth consideration, which is problematic. A short section at the end of the chapter provides four scenarios for consideration, which is a good start, but again, not enough. The second text, *Writing that Works: A Teacher's Guide to Technical Writing* by Dr. Stephen M. Gerson is a 100-page text that provides teachers with guidance for incorporating technical writing in their classrooms. While it has plenty of practical writing applications and ideas, not a single page of ethics instruction resides within the text, despite the array of opportunities to infuse it with the types of documents the text mentions. For example, an assignment on reports would be a good place to infuse ethics instruction since a report has the potential to be manipulated to allow data to show what the writer wants it to show. The second chapter discussing the five traits of technical writing would also be a great place to infuse information about ethics when discussing accuracy or audience recognition, yet ethics is nowhere to be found. While the text is practical and usable, it doesn't address ethical questions at all, which should be infused throughout technical

writing instruction if no standalone course is possible. The final textbook, *Technical Communication*, 16th ed. by Lannon and Gurak also provides only 20 pages of ethics instruction, but it gets at "meatier" issues, such as the differences in collaboration vs. groupthink, understanding the potential for communication abuse, and considering ethical issues within digital communication. While still not in-depth, these issues are aligned with concerns that cause real problems for organizations and writers, and they should be the basis for in-depth ethics courses to ensure that students have ethics at the fore of consideration while writing for businesses.

Despite the difficulty of teaching ethics, many in PTW field advocate for it, either directly or indirectly. One way ethics can be infused in PTW is for professors to instruct on the rhetorical function of PTW as inherently focused on relationships since the speaker and writer are two "corners" of the rhetorical transaction. While it won't work for everyone, when a writer is forced to consider audience and the potential impact of their writing, some budding technical communication students may think twice about ethics violations in their work – or about compromising their ethics for a job. In Carolyn Miller's article "A Humanistic Rationale for Technical Writing," she underscores that when community is established it is much harder to ignore one's moral compass and willfully do damage to another. Miller writes, "to engage in any communication is to participate in a community… our teaching of writing should present mechanical rules and skills against a broader understanding of why and how to adjust or violate the rules [of technical writing], of the social implications of the roles a writer casts for himself or herself and for the reader" (Miller 617). Through the humanistic foundation, instructors can build the connection between reader, writer, and ethics as integral rather than

peripheral, further infusing the moral compass required to withstand the temptation of ethical missteps. Miller further asserts that, "under this communalistic perspective, the teaching of technical writing becomes more than an inculcation of a set of skills; it becomes a kind of enculturation. We can teach technical writing, not as a set of techniques for accommodating slippery words to intractable things but as an understanding of how to belong to a community" (Miller 617). This highlights the human qualities of the communities to which we all belong and the importance of writing to those communities, which may create more ethical work. At the very least, it creates a foundation from which technical writers can operate within business, as businesses work to create cultures, and those cultures can either coach ethical behavior in or out of their employees.

While understanding community between writer and reader is important, speakers and writers also know that while communication to the audience must occur, tension exists because the message may not be accurate, and the communicator typically knows of the deception. Berkenkotter and Huckin acknowledge this when they write, "genres are inherently dynamic rhetorical structures that can be manipulated according to conditions of use... as a form of situated cognition embedded in disciplinary activities...." (285, 294). We see this frequently when a disaster occurs, such as the Exxon Valdez oil spill. Most organizations craft language for policies or announcements that meet their own ends, as Exxon did when it scapegoated its captain without acknowledging its own failures in maintaining functioning radars, among other issues. Rather than tell the truth, Exxon tried to unethically cover its tracks via its communication, making the situation worse. Linda Driskell corroborates this in her essay "Understanding the Writing Context in Organizations" when she

writes, "Any subject or issue is framed by the perceived external environment (society, government, competitors, resources) as well as the perceived internal environment of the company…" (59). In a perfect world, though, it would also meet the needs and competing values of the audience or consumer of the information because an inherent part of the rhetorical transaction is the audience. Lacking recognition of that concept is exactly what must be addressed to maintain professional ethics. What the public needs and appreciates from businesses is honesty. It doesn't always benefit the business, but no one expects perfection, and if Exxon had simply owned the mistake it would have maintained more credibility than the fallout it received when the public realized it had lied via its public messaging. In an effort to save money and reputation, the lack of ethics created deep-seated cynicism from the public.

Because instructors can't expect that students will just "know" what ethics in PTW looks like, explicit instruction is necessary. PTW professionals understand the importance of audience and context, so a logical progression is that PTW curricula should address and infuse ethics content in purposeful ways so that students understand its importance to the credibility of the field and their own careers. One way to do this is through case studies in which students must respond to specific ethical dilemmas. Another way, according to Kienzler and Carol in their article "After Enron: Integrating Ethics into the Professional Communication Curriculum" is to construct group projects that "consider the effects of business on the broader community" so that students "learn major ethical approaches and gain a vocabulary of ethical terms they can apply in the business world" (abstract). This will teach them how to interact within a variety of contexts and communities and engage in discussions requiring

critical thinking. While the authors admit a reluctance on the parts of students and faculty to address ethical considerations, they also note that "students in business communication classes showed more signs of ethical complacency than did honors students in a first year composition class, who appeared dedicated to upholding their personal ethical standards on the job" (475). It is truly alarming that business students seem to have less of a personal moral and ethical compass than other students do; it also appears that business students assume that a lack of ethics is a foregone conclusion in business or that they have normalized unethical behavior, which also suggests the dire need for ethics education in PTW. These are the students who will manage, own or run businesses; if they don't engage in ethics curriculum and ethical complacency is their default, it doesn't bode well.

Language is the only resource writers own, so professors must show students the implications of their language choices. They can't assume that students will inherently make the right choices, understand their power to influence others, or recognize the ethical implications of their choices. In Brenda Sims' article "Linking Ethics and Language in the Technical Communication Classroom," she writes, "learning how to use language choices and information ethically should be the focus of discussion in technical communication classrooms. By studying the power of communication to affect values and judgments, our students will realize the fundamental ethical responsibilities they bear as writers" (286). While Sims discusses various philosophies such as utilitarian and deontological approaches, she recognizes that most students simply want to ensure that they write well enough not to embarrass themselves in their jobs. Self-efficacy, therefore, pervades their thinking more so than ethical implications, it seems, which is understandable given the human need for self-

preservation. Interestingly, that need for self-preservation may serve the crux for unethical behavior when a communicator feels threatened in some way, say be the fear of job loss, but it can also be the crux for ethical behavior if instructors can help students see the connection between ethical communication and how it benefits the writer. Sims works to help students see the links between language and interpretation and the control they have, which is empowering, and that, too, may stave off ethics conundrums. Sims writes, "I suggest several basic methods that writers may use to manipulate language and the presentation of information for unethical ends. I then offer a series of questions for analyzing the ethics of particular instances of presentation of information" (288). This simple yet effective approach allows students to see that they have the power of choice when it comes to their language use, and it can be a powerful reminder that they have agency in their work.

Instructors must also remind students that the content of their writing is a rhetorical transaction that has implications for others. In other words, no communication occurs devoid of context, so it is important for technical writers to understand the context their writing occurs within by asking questions. While component content management sometimes parses writing projects, knowing something about why the communication is occurring may help writers to make the right choices when considering how their words influences others. Marrying rhetoric and ethics in PTW education, Matthew Boedy writes, "our pedagogy must prepare technical communicators who can penetrate and understand their communication context … and on a parallel line of thought, technical communicators… also need an ethical education, reminding us that they… continually make ethical choices in serving diverse interests and negotiating between conflicting demands" (116). This foundational aspect of

ethics education bridges the responsibilities professional writers must face and, according to Boedy, "affirms our ethical turn by continuing the placement of the individual in a more binding and complex relation with others" (117).

While ethics instruction can be uncomfortable for instructors for a variety of reasons, a quick look at the world of political and business communication underscores the need for ethics instruction. We live in a world rife with ethics violations; one need only look at Facebook founder Mark Zuckerberg's testimony before Congress in which he defended the practices of allowing known false advertising and child pornography to realize that it has to stop. That situation alone, in which his company consciously allows people to be manipulated for profit, should give instructors pause that reinforces the need to explicitly teach students about ethics in PTW programs. They can't ignore it, nor can they assume that students will "do right" without knowing how to unpack ethical dilemmas that they may not even realize they'll face. How would these students respond if they worked for Facebook and were asked to help the company "save face" via public messaging? While parents have the first responsibility of infusing values such as honesty and integrity in their children, when some of those children choose to become professional communicators, it is the responsibility of college professional and technical writing instructors to provide the ethics education that students may not realize they need but that they will benefit from having.

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