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Design Justice: Integrating AI into Technical and Professional Communication Curricula at Hispanic-Serving Institutions

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Abstract: This article explores the integration of generative artificial intelligence (AI) into Technical and Professional Communication (TPC) curricula at Hispanic Serving Institutions (HSIs), emphasizing design justice principles. Drawing from past criticisms of technological resistance in education, we address contemporary reactions to AI, particularly policies that restrict its use. These restrictions echo unethical plagiarism detection practices and hinder the educational and professional opportunities of marginalized students. We advocate for using AI as a disruptive tool for positive change, aligning with Johnson, Sullivan, and Simmons' view of effective disruption in well-run organizations.

Keywords: Academic programs, design, iteration, design justice, multivocality

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In an article published while Windows 98 still dominated the professional computing landscape, Selfe (1999) chastises her fellow instructors for ignoring the significant impacts of computerized composition, labeling their choice as dangerously shortsighted. While some statistics, like that 70% of jobs requiring a bachelor's degree "now" require computer usage (Selfe, 1999, p. 415), have changed over the past 20 years, her frustration at the resistance to technological innovation within higher education resonates with our own frustrations regarding recent reactions to generative artificial intelligence (AI) programs.

As a TPC program administrator and researcher, we have had the opportunity to attend numerous meetings regarding institutional AI policies. Most of these policies have been aimed at either blanket restrictions or requirements to submit all student work through AI-detection software. To some extent, these two reactions are to be anticipated. After all, AI text generation has disrupted our understanding of writing, and disruption is often met with forces or policies seeking to stabilize and prevent change. Yet in an attempt to reify our traditional understanding of writing and its role in the educational process, policies like these echo many of the ethical violations that are often excused in the name of plagiarism detection (Bruton & Childers, 2016; Rudd & Hodges, 2014; Sunderland-Smith, 2011), and that contradict workplace practices around plagiarism (Mosco, 2021), ultimately creating an unjust and hostile learning environment for technical and professional communicators.

Disruption, however, does not necessitate reactive restrictions or panoptic policing of new technologies. In *Lean Technical Communication*, Johnson, Sullivan, and Simmons (2018) note how disruption, when executed effectively within well-run organizations, can be crucial for instigating and leading necessary changes tailored to, and rooted in, the unique needs of those served. In many ways, disruption opens the gateway through which the most marginalized and vulnerable populations can find justice. Disruption is often needed to reveal biases in ostensibly neutral official policy, which researchers such as Jones et al. (2016) have shown to be anything other than neutral.

As we grappled with AI's disruption to our understanding of writing within our own classrooms, we knew that we wanted this unique disruption to serve the needs of the students at our Hispanic-Serving Institution (HSI). Looking at the changes to the writing landscape wrought by AI through the lens of design justice (Costanza-Chock, 2020), we concluded that ignoring technological innovation through policies that ban the use of AI serves to, at the very least, harm students, and in other cases, can severely limit their potential for employment. In this article, we reflect on the choices we made prior to and after the launch of ChatGPT 3.5 and other generative AI programs and how these choices reflect our understanding of the needs of first-generation students at our HSI.

HSIs, the Digital Divide, and TPC Programs

Since its inception in 1990, the White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity for Hispanics has tracked the impact of higher education institutions serving Hispanic students (U.S. Department of Education, n.d.). As of 2015–2016, 12.8% of U.S. college students were Latina/o, and HSIs conferred nearly 40% of all bachelor's degrees earned by Latina/o students, underscoring the pivotal role played by HSIs in the

educational journey of Hispanic students (Paschal & Taggart, 2021). By 2020, 1.8 million Hispanic students were enrolled in public and private 4-year and 2-year HSIs in the United States, with nearly 300,000 Hispanic students completing associate and bachelor's degrees at HSIs in that academic year (National Center for Education Statistics, 2021). To ensure success, HSIs – and the technical communication programs housed within them – must address the societal inequities faced by this population, adjusting academic program development, support services, career placement initiatives, and organizational change to better meet their needs. One specific area of need is implementation and training in technology.

Data shows that despite growing up in a culture immersed in technology, many college students lack the formal technological skills necessary for success in the university classroom and beyond (Dahlstrom et al., 2014; Galanek et al., 2018; Gierdowski, 2019). The digital divide, a term that emerged in the 1990s to describe disparities in access to computers and the internet, continues to hinder students' ability to participate effectively in the classroom and prepare for their post-collegiate lives. In a case study that focuses on the firsthand experiences of Latina first-generation college students during the COVID-19 pandemic, Killham et al. (2022) vividly illustrate the disproportionate impact of the digital divide on Hispanic and first-generation college students, who often bear the brunt of digital inequities. Critical success factors for these students included the support of family members, who enabled first-generation Latinas to navigate the significant changes in their routines during COVID by providing quality time (both in the home and using video conferencing technology) and alone time to recharge, as well as caring for children or other dependents in the students' lives (Killham et al., 2022). In addition to assistance from face-to-face and virtual connections with family members, the student participants in Killham et al. (2022) found support from peers and instructors who used technology to communicate empathetically with them about their lived experiences during the pandemic. In this light, questions of the 'digital divide' and its potential solutions cannot be untangled from students' lived experiences and avenues of success, such as family support and inclusive teaching practices.

Courses in technical and professional writing have been described as "a pivotal space where HSI as an identity can be articulated on a programmatic level" (Leon & Enríquez-Loya, 2019, p. 163). Matveeva's (2015) investigation of 28 TPC programs at HSIs discovers that several institutions incorporated bilingual courses and certificates, as well as courses on diversity and culture in workplace settings and service learning in local communities. However, Matveeva (2015) also noted that such courses were often listed as electives (p. 10), suggesting that *centering* race, language, and ethnicity in catalog descriptions of TPC curricula was not typical for most programs. Aiming to fulfill this mission and challenge the utilitarian paradigm of technical writing, Leon and Enríquez-Loya (2019) envision an HSI TPC program that would enable students to recognize technical documents as rhetorical acts, to analyze how technical documents create and serve the aims of systemic oppression, and to build communities through developing their own theories of resistance and societal changes.

Such programs bring together the work of individual instructors like Medina (2014), who describes the potential of information and communication technology, such as the social network

on Twitter, to nurture Latin@[1] students' performance of their identities and legitimize their language use as a meaningful mode for technical communication. In this course, Medina (2014) observed that the student participants incorporated code-switching in Spanish and English, community-building discourse, and common cultural experiences and interests into their tweets to achieve "an added level of clarity for [their] intended audience, conveying an academically oriented message in a performance of *latinidad*" (p. 77). The students' choice to integrate their languages and cultural knowledges enhances their technical communication practice and enables them to "develop positive constructions of professional identity" (p. 83). TPC programs at HSIs that sustain and center approaches like these are able to facilitate Hispanic students' ethical, agentive identities as technical communicators, made even more necessary in the wake of generative AI. As Leon and Enríquez-Loya (2019) explain, "our courses and institutions do not exist in a bubble without people of color or without problems pertinent to contemporary and long-standing issues of social and community justice" (p. 170), and so the work of AI integration into TPC courses at HSIs require a community-oriented, socially just approach.

To address digital inequities, TPC programs at HSIs need to proactively structure their coursework to bridge digital gaps brought on by institutional and systemic racism, with a specific focus on leveraging the AI technologies that are rapidly becoming the foundational tools of professional writing. As Berger and Pigg (2023) note, professional technical communicators have had to adapt their formal education experiences to industry in response to the changes wrought by AI, forcing those professionals to bridge the disconnects between academic and workplace culture and practices. Although continuing education will always be vital for professional technical communicators, TPC programs must continually adapt to ensure our graduates are well-prepared for a workforce where creating content for consumption by large language models (LLMs) has become the norm (Card & Duin, 2023). And while TPC programs must balance the teaching of skills with theoretical frameworks (Hart & Glick-Smith, 1994), failing to update our course content and programmatic sequences to account for this fundamental shift in writing tools would harm our most vulnerable students and contradict the very mission we seek to fulfill as user-centered communicators ourselves.

Design Justice and the Integration of AI into TPC Coursework

When disrupting our own notions of technical writing coursework and designing new AI-centered pedagogies, we took to heart the 10 principles of design justice. The Design Justice Network (2018) espouses 10 design principles that "[rethink] design processes, centers people who are normally marginalized by design, and uses collaborative, creative practices to address the deepest challenges our communities face" (para. 2). As we contemplated how to address the use of AI in our classrooms, we knew we needed to prioritize our design's impact on our community versus prioritizing the intentions of the designer, which is principle 3 in the Design Justice framework (2018). We acknowledged that while some policies that broadly prohibit the use of AI in the classroom do so with the best of intentions, they may end up harming marginalized students by impeding their ability to secure gainful employment. Technical writing portfolios created through coursework that offers no interaction with AI will likely not offer the edge that burgeoning technical communicators need to get their first job.

[1] Medina (2014) uses the term "Latin@" to "perform a visual representation of inclusivity" outside of the gendered Latino/a binary (p. 63).

Our current iteration of AI focused pedagogy begins with minimal to no utilization of AI in the introductory course and then fans out to explore diverse AI-powered writing tools and aspects. By adopting this incremental approach, students gain insights from the introductory course and subsequently employ them in our broader exploration of AI tools during subsequent classes. Considering the structure of our course offerings, we will discuss the courses as follows:

1. Introduction to Technical Writing (lower-division undergraduate course taken by students across the institution)
2. Designing Technical Documents (upper-division undergraduate course taken by students minoring in technical writing)
3. Technical Editing (upper-division undergraduate course taken by students minoring in technical writing)

Although we collaboratively wrote each section, the section on document design primarily reflects Tim's experience and the section on technical editing reflects Amy's experience, as the most frequent instructors of record for the respective course. In each section, we will also reflect on our reasoning for integration of AI, as well as on potential shortcomings we have found and continue to address.

Introduction to Technical Writing

In their examination of the present landscape of U.S. undergraduate degree programs in TPC, Melonçon and Henschel (2013) demonstrate centrality of the introductory course, underscoring its vital role in TPC intellectual development. Even if the majority of students who take the course do not go on to careers in technical communication specifically, students benefit from introductory TPC courses that begin with a strong foundation of skills that can be subsequently applied to new learning contexts.

As we sought to center the needs of those "who are directly impacted" (Design Justice Network, 2018, para. 4) by our curriculum design process (i.e., the Latino students at our HSI), we hesitated to fully deploy AI tool usage in the introductory course. Aware of generative AI's tendency to produce "standardized" White American English (Bjork, 2023) and with it the "white racial habitus" (Inoue, 2017) that reifies White language supremacy over other languages, language varieties, and communicative modes, we wanted to avoid harming our student population with a tool that, quite frankly, was not developed for them.

At the same time, we did not want our students to construe our AI limitations in the introductory course as an across-the-board condemnation of these tools. Such an unintended interpretation was plausible, given the prevalence of adversarial anti-AI policies that circulated over the summer of 2023 and found their way into many syllabi at our HSI. Cognizant of the need to "share design knowledge and tools with our communities" (Design Justice Principle 7), we wanted to help students be able to evaluate the outputs of generative AI before requiring them to use it. We were also realistic about the proliferation of AI tools for student use, both on their own (e.g., ChatGPT, Google Bard/Gemini, etc.) and integrated into word processing and document design software (e.g., Microsoft CoPilot). Our choices also involved seeking out the needs of the

many instructors of the introductory course, who tend to be in contingent labor positions and balancing many other demands on their time, and who have their own orientations toward generative AI that both overlapped and contradicted with our own.

In an endeavor to avert any potential misinterpretation, we formulated a generative AI policy for the introductory course that centers on clarifying the rationale behind the restricted usage at the introductory level and addresses the role that AI writing tools will assume in subsequent classes. The full policy (see Appendix) begins with a forthright, first-person dialogue addressing our pedagogical decisions:

> As a technical writer myself, I understand the important role AI plays in constructing professional documents. However, before you can truly use AI to its full potential, you must possess strong technical writing skills yourself. Our course will teach you the skills needed to evaluate and adapt the output of generative AI, allowing you to use this powerful tool in other courses or other contexts. No matter how complex the situation, no matter how unsure you might be about the best choices to make at any moment, I want you to know that after this course, you have the knowledge and the skills to take on ANY kind of technical writing challenge. It is from that place of knowledge that you will be able to truly be able to leverage the power behind generative AI.

Alongside this text-based policy, we have also created a video for integration into our online courses, where we delve into the reasoning behind this policy (link available following blind peer review). Through this approach, we aimed to establish a candid rapport by presenting the logic of our policy in a more relaxed tone, employing elements like the first person and colloquial language and eschewing the punitive tone of many other AI policies that limited use. Our intention was to foster student engagement and garner their support, a challenging task given the thousands of students who take this course at our HSI and the different perspectives of the many instructors who teach the course. By helping students recognize the inherent value in postponing the use of AI tools, we anticipated that they would be better positioned to seamlessly integrate the foundational principles from the introductory course into their subsequent coursework.

Initial feedback from students and instructors has been mixed. The problem we noted with our policy is that both students and instructors had difficulty identifying what uses of AI were accepted in the course, and more importantly, did not seem to trust that the other group would share the same definition of appropriate AI use. Graham and Hopkins (2021) note that many students and instructors in TPC criticize the black box model of AI and machine learning, where algorithms appear opaque or hidden behind proprietary systems, while simultaneously believing "the false presupposition that we understand the interior machinations of our currently dominant rhetorical technology – the brain" (p. 99). Several of our instructors indicated that they believed – with or without evidence – that students were using GenAI in ways that defied the course policy. Perceiving that they understood what a typical student sounded like in writing, instructors attributed violations of this norm to the influence of AI. Although the policy opened up avenues for instructors to talk with students about the intricacies of AI use, we should have anticipated that this policy (and perhaps any policy) could foster mistrust between both parties. We do not have direct evidence of students' stances, but it is likely that they needed a 'safe space' (see next

section on the Designing Technical Documents course) to work with AI without fears of being punished for academic dishonesty. We continue to reflect on and collaborate with faculty on ways to work productively with students on AI in the introductory course, aiming to build on models that incorporate critical AI literacies (Moxley, 2024) and build communities at our HSI (Leon & Enríquez-Loya, 2019).

Designing Technical Documents

After the introductory course, we introduce AI writing – specifically prompt engineering – in the Designing Technical Documents course because the course's student learning outcomes (SLOs) provided a kind of shield from potential negative repercussions associated with AI usage. This course provided a crucial 'safe space' for our students to engage with AI tools, particularly in light of the widespread apprehension and punitive measures associated with AI usage across academia. Many students, especially those of color, have expressed significant fear of academic misconduct allegations related to AI, with student run subreddits connected to our institution filled with examples of this fear. Their anxiety, unfortunately, is not without cause. Numerous studies show that students of color are disproportionally targeted for review and harshly punished for academic infractions (McCarthy, 2019; Sevon, 2022; Skiba et al., 2011). By introducing AI writing in a course which SLOs center on document design rather than content creation, we can alleviate these fears while ensuring our students gain valuable skills in AI prompt engineering (Bowen & Watson, 2024).

Now, some might argue that explicitly instructing students to use AI in the course should be enough to alleviate any fears associated with AI usage, rendering the course's focus on design less significant. They might argue that clear guidance and encouragement to use AI would inherently mitigate apprehension, regardless of the course's specific SLOs. However, we contend that the alarm surrounding AI use is deeply ingrained, particularly among our students at an HSI. A brief review of the subreddit created by students at our institution highlights their anxiety and frustration with AI use. For instance, one thread titled "Accused of using ChatGPT" features a student seeking advice on proving their innocence after being accused of academic dishonesty (deleted-user). Another thread, titled "UTA 2030 used ChatGPT," showcases students venting about AI detectors being used against them, even pointing out that these detectors flag the university's own strategic plan as AI-generated (lryanle).

This pervasive concern and distrust necessitates additional measures to ensure a truly safe and conducive learning environment. By integrating AI within a course where the SLOs emphasize design rather than content creation, we provide an extra layer of protection, allowing students to explore AI tools without the anxiety of being penalized for their writing. This approach acknowledges and addresses the unique challenges our students face, fostering a supportive atmosphere where they can confidently develop essential AI and technical communication skills.

To support our students' first steps in AI writing, we redesigned the course to focus on helping them craft robust prompts by providing complex scenarios as prompt source material. In the previous version of the course, we provided all the text for their designs as plain text files. As the redesigned course began, we discussed how to build complex prompts with multiple variables, weaving together what we know about context, situation, and output requests from the scenario

with our own lived experiences. This multifaceted approach aimed to "help students understand different levels of prompting and automation that might be appropriate in different contexts" (Gupta & Shivers-McNair, 2024, p. 15). Progressing through the course units, we encountered design scenarios intricate enough to allow students to combine data from the prompt with their lived experiences to generate comprehensive prompts. For instance, the initial design project presents students with a detailed scenario, enabling them to dissect it and formulate a robust prompt (see appendix for full assignment).

You are a member of the support staff at a popular zoo, responsible for assisting visitors and providing them with valuable information about the different animal exhibits. The zoo recently renovated its giraffe exhibit and has received many inquiries from visitors about giraffes. To address their questions and enhance their experience, you have been assigned the task of creating a single-page Frequently Asked Questions (FAQ) handout specifically for visitors interested in giraffes.

The handout will serve as a resource to educate visitors about the unique characteristics of giraffes, answer common questions, and provide important information about giraffe conservation efforts. Its aim is to enhance visitors' understanding and appreciation of these magnificent creatures while ensuring an enjoyable and informative experience at the zoo. Additionally, you discover that the primary attendees at the giraffe exhibits are children between the ages of 3 and 16.

As a member of the support staff, you are responsible for creating a concise and informative FAQ handout that covers various aspects of giraffe biology, behavior, and conservation. The handout should address common questions and provide visitors with relevant information to deepen their understanding and engagement with the giraffe exhibit. Keep in mind the age range of the primary users when considering the kind of information they may want to know and how to word your handout for optimal accessibility.

After this scenario, students are directed to craft a prompt that instructs a generative AI program to produce the content of the handout. Additionally, they are asked to evaluate the efficacy of their prompt when sharing their final designs for peer review within the class. These assignments aim to provide a secure environment for students to experiment with prompt engineering, as the factual accuracy of the generated text is less crucial — merely substituting the placeholder text previously provided by the instructor. By leveraging the data from the scenario along with their lived experiences, the assignment aligns with Design Justice Principle 5, which states “everyone is an expert based on their own lived experience.” For the students at our HSI, this approach strives to empower them to use their lived experiences as part of the prompt creation process while providing a safe space to learn about AI. Simultaneously, these exercises highlight the critical significance of precise prompt construction in yielding high-quality outputs from generative AI (Knoth et al., 2024), potentially enabling students at our HSI to showcase their abilities in AI content authoring.

Reflecting on the initial iteration of our course, we observed that some students felt they lacked relevant lived experiences to engage fully with certain prompts. For example, our "giraffe prompt" centered on children, under the assumption that all students could relate to this

demographic. However, we found that some students did not feel they had much to contribute about that age range. This insight has been enlightening and has informed our approach to developing future scenarios. In the second iteration of this course, we plan to collaborate closely with students to create scenarios that better reflect their diverse experiences and perspectives. This approach aligns with the principles of design justice, which emphasize the power of lived experience when brought to bear on the design experience.

Through this change, we also grapple with the reality that when students feel they lack personal experience with a topic, they might be more inclined to allow generative AI to take greater control over their writing. To further address this potential for their voice to become lost, we will incorporate reflective assignments inspired by Joe Moxley's "Writing with AI" course, encouraging students to examine how AI tools can both constrain and enhance their agency as human writers. By integrating these strategies, we aim to enhance student engagement and confidence in using AI tools, while ensuring that the power of their unique experiences is not diminished through the use of AI.

Technical Editing

As one of the most common courses in technical writing programs (Melançon, 2019), technical editing is a key course to examine for socially just AI integration. As a course focused on language use, technical editing can serve as a gatekeeper that reinforces White Edited American English as the professional and privileged discourse. However, more recent scholarship in technical communication has focused on how the field can rethink students' relationships with language. Edwards (2018) describes a writing assignment drawing upon Critical Race Theory in her professional writing class that "would enable students to make a connection [between rhetorical language use and systemic oppression] that many refused to acknowledge verbally" (p. 227). She presented students with two mock interview questions addressing race, workplace environments, and their own roles as communicators in a racially diverse workplace. Even as some students found it challenging to talk about race and even fewer were willing to draw connections to systemic oppression, Edwards (2018) highlights the benefits of racially conscious pedagogy in TPC: "the ability to make connections, thoughtfulness about a diversity of voices and experiences, and the importance of critical listening" (p. 279). Shelton (2020) incorporates tenets of Black Feminism in her TPC course to position students as analyzers of their linguistic landscape in workplaces, asking them, "What does this [inclusive or exclusive language act] communicate to people who enter this building about how they are supposed to be in relationship with this space? How can similar dynamics be created by the technical and professional documents – the dress codes, policies, applications, procedures, reports – of a business or industry environment?" (p. 26). After a student invokes the name of a white supremacist in an anonymous midterm feedback chat, Shelton (2020) addresses this attempt to usurp the course in the name of anti-Black and White-centering workplace language norms: "But what I want you to do is to consider the truth of my experience that I'm sharing with you in the future when you are not practicing technical and professional communication, you are instead actually doing it. Be aware of what kind of work space you are composing for the women, people of color, queer people, people with disabilities, and poor people who surround you, and do better than you've done with me today" (p. 30). The experience of developing and executing these risky, labor-intensive assignments is "empowering, even if it is also painful" (Shelton, 2020, p. 31), as

students (and sometimes instructors) unpack their lived experiences with race, language, and technical and professional workplaces.

A framework for addressing these issues within the technical editing classroom has been articulated by Clem and Cheek (2022). Their inclusive editing paradigm invokes three intersecting principles. First, that instead of imposing normative rules of grammar (i.e., White American Edited English), editors should attend to the dialogue between diverse language actors (authors, editors, and users) and support different norms and perspectives towards language. Second, that instead of making decisions based on maintaining productivity or streamlining efforts, editors should create spaces for knowledge exchange about language and the trappings of power that come with particular language uses. Finally, editors should reflect on the positions of power they hold in relationship to others, and in ongoing consideration of this process, should practice social justice as a core methodology for editing. Clem (2023) explains how to integrate the inclusive editing paradigm in a technical editing course. As students completed editing tasks and critically examined existing definitions and practices of technical editing, Clem's major assignments asked students to reflect on their purposes of editing and explain their editing choices and suggestions. Similar to Edwards's (2018) business writing course, Clem's (2023) students drew fewer explicit connections to methods for resisting systemic oppression, but they did report a much more holistic understanding of editing, moving them towards a social justice approach. These methods for teaching inclusive editing practices are more important when considering the use of generative AI in the technical editing classroom.

Generative AI programs like ChatGPT tend to follow the norm of White Edited American English, as LLM training data reflects the proliferation of written English on the web, the majority of which reflects practices and histories of linguistic discrimination (Byrd, 2023). As Lawrence (2024) argues, speakers of diverse Englishes are marginalized by automated speech technologies that do not recognize specific accents and do not mark errors or misinterpreting as such, instead inscribing a misrepresentation of their words in the normative dialect. Similarly, generative AI programs flatten language diversity by responding to all users with the same White Edited American English 'voice,' providing them with language that may or may not fit their communicative preferences. These language biases built into generative AI offer opportunities to assist students at HSIs with "analyzing ways systemic oppression is created and enforced through technical writing" (Leon & Enríquez-Loya, 2019, pp. 166).

In technical editing lessons throughout the semester, I (Amy) tried to become the instructor who could "focus less on helping Latinx students to assimilate into 'traditional' communicative frameworks, and more on helping the field of technical communication to recognize difference as central to (rather than tangential to) successful technology and communication design" (Gonzales, 2019, pp. 179). Course content included case studies involving language difference, drawing upon local advertisements and informational writing to show the variety of language identity markers used in professional settings. Drawing upon Clem and Cheek's (2022) inclusive editing paradigm, we made space in classroom discussions for students to reflect on their own language practices and the impact that systems of power, such as educational institutions, had on those language practices, in connection with their practice on substantive and sentence-level editing techniques on print and multimodal texts.

These lessons culminate in a final assignment where students are asked to examine generative AI's ability to edit a text and to reflect on and articulate the potential roles of human and AI editors in a field-specific context. Students have a choice of three scenarios related to field-specific interests; in the most recent semester, nursing, instructional design, and entrepreneurship were available options (see Appendix). In the scenario, the student is positioned as an intern in an organization who is asked to edit an AI-generated report into a short infographic to be distributed to users in the local area. In previous versions of the course, we used the public API of GPT-3 to generate a sample report for students to edit, but in the redesigned assignment, students are asked to generate the initial report themselves and to prompt the generative AI program to edit the document into a shorter form suitable for an infographic. Along with students' final version of the edited infographic, they are required to turn in a progress report to their fictional internship supervisor, describing their editing process using the generative AI program and, most importantly, what role they as human editors performed in the creation of the final deliverable.

In my (Amy's) analysis of students' responses to this assignment, I perceived that they were able to articulate "thoughtfulness about a diversity of voices and experiences" (Edwards, 2018, p. 279), while simultaneously hesitating to engage with issues of power dynamics and systemic racism in technical editing. Students frequently edited and translated the AI's output into Spanish and explained that this would enable their fictional company to more adequately meet the needs of Spanish speakers in the community. They believed that their attention to diverse perspectives would be valued by future employers, and they tended to portray the generative AI output as an inadequate representation of the language diversity of the communities they lived in. Many were able to make connections between the discussions we had in class on the limitations of LLMs' training data and cultural biases that arise from that training data (Retteberg, 2022).

Despite my assurances in class that, although not a native speaker of Spanish, I (Amy, a white woman) could understand enough to be able to provide them with feedback on this assignment, several students contacted me before the draft due date to ask if it was fine with me to turn in something in a language other than English. Others spoke to me about their regret that they did not have enough confidence in their written literacy to be able to create the infographic in a language other than English – a perspective I plan to use in future versions of this class to talk about the linguistic bias in speech devices (Lawrence, 2024) – and about the primacy of written literacy in technical communication. In their reflections, most positioned themselves as advocates for users but did not address how that advocacy might advance their goals of social justice or have results beyond the effective communication in the edited infographic.

Overall, this assignment enables students to understand the potential and drawbacks of using generative AI as a technical editor and prepares them to articulate their value as technical communicators based on their own lived experiences. Yet it also reflects the necessity of working towards Design Justice Principle 8 of "sustainable, community-led and -controlled outcomes" (Design Justice Network, 2018). Students were able to make connections between class discussions on generative AI, linguistic diversity, and technical editing, but the outcomes they articulated did not often imagine a space where generative AI or technical editors were able to serve the needs of the community beyond acknowledging the presence of diverse language users. These issues are next on our list to address in the curriculum design process.

Conclusion

As generative AI and our TPC program continue to evolve, we continue to revise generative AI assignments and incorporate new courses and course content to align with the career aspirations of our students and the communities they belong to. Additionally, we aim to engage students as co-designers who can participate in an "accountable, accessible, and collaborative process" (Design Justice Network, 2018, para. 6) of change that is emerging from this disruption. Already, former students share stories of their experiences with generative AI in their workplaces, and the assignments described above have been shaped by the insights gleaned from these former students and our local industry partners, as facilitated through our engagement with the local Society for Technical Communication chapter.

Many stakeholders in TPC programs at HSIs may be adversely affected by generative AI programs. This impact extends from contingent faculty, who are likely to shoulder the primary responsibility of the instruction (and policing) of generative AI (MLA-CCCC Joint Task Force on Writing and AI, 2023) to underserved students who harbor concerns about being left behind once again as new technologies perpetuate existing societal and economic disparities. These technologies often fail to embrace a diversity of perspectives, including Indigenous (Lewis, 2020), Black, Latino/a, and other ethnic minority viewpoints. At the same time, students at HSIs may have already developed robust skills with generative AI and other technologies outside of our classroom contexts, and valuing their lived experiences should be a cornerstone of generative AI assignments.

As AI and its role in the world of professional writing is ever evolving, instructors face new challenges to designing course work and assignments that "sustain, heal, and empower our communities" (Design Justice Network, 2018, para. 1). The impacts of AI on TPC education are multifaceted: not only in terms of changes in writing practices, but in terms of water resource management, data security and privacy, lethal autonomous weapons systems, and countless other societal transformations that often disproportionately impact people of color. Hispanic-serving institutions who endeavor to train the next generation of students to shape the future of AI are well-positioned to begin bridging the digital divide in their communities.

Though AI and its role in the world of professional writing is ever evolving, our commitment to designing course work and assignments that "sustain, heal, and empower our communities" (Design Justice Network, 2018, para. 1) should never change. Through this commitment, we ensure that our students are well-prepared to not only navigate but also shape the future of AI in professional communication.

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Appendix

Generative AI Policy for Introductory Technical Writing

As a technical writer myself, I understand the important role AI plays in constructing professional documents. However, before you can truly use AI to its full potential, you must possess strong technical writing skills yourself. Our course will teach you the skills needed to evaluate and adapt the output of generative AI, allowing you to use this powerful tool in other courses or other contexts.

No matter how complex the situation, no matter how unsure you might be about the best choices to make at any moment, I want you to know that after this course, you have the knowledge and the skills to take on ANY kind of technical writing challenge. It is from that place of knowledge that you will be able to truly be able to leverage the power behind generative AI.

- Students in this course **may not include language generated using artificial intelligence tools** (ChatGPT, Google Bard, Microsoft Bing, etc.) for any assignment in this course, including discussion board posts and replies, drafts or revisions of course projects, and responses to instructor prompts.
- Students in this course **may not include language edited by a generative artificial intelligence tool** (ChatGPT, Google Bard, Microsoft Bing, etc.) for editing any assignment in this course, including discussion board posts and replies, drafts or revisions of course projects, and responses to instructor prompts.
    - This prohibition does not include the use of spelling and grammar-checking programs like Grammarly or the internal tools in MS Word or Google Docs - those are fine to use, although as with any software, you need to check the checker to make sure it maintains your original meaning. We will also teach you self-editing techniques in this course.
- If students in this course use artificial intelligence tools to generate **ideas** for assignments, including discussion board posts and replies, drafts or revisions of course projects, and responses to instructor prompts, they must include a **detailed description and justification** of their use of AI below their submission.
    - For example, you could write something like this below an assignment: "I asked ChatGPT to generate potential reasons why patients might not follow patient care guidelines for Type II Diabetes. I integrated one of these ideas (that they may not understand the plan) into paragraphs 6, 7, and 8 of my proposal. I used ChatGPT to get me started on that idea, and once I wrote about potential misunderstandings or confusions that patients might have, I was able to get some more ideas about why they might not follow the guidelines."
- Students in this course who use artificial intelligence tools to generate language or edit language as part of a submission in the course, or students who do not acknowledge their use of generative AI will be considered in violation of [institution blinded]'s academic honesty policy.

Assignment Prompt for Designing Technical Documents

To exercise your new skills, I would like you to make a basic document in InDesign. One of the keys for success is that you will need to be sure that you avoid the 13 design sins we discussed. We will also exercise our skills in using generative AI for the text used in this design.

To get started, please read the following scenario, which describes the document you will design and the context in which it will be used.

Scenario: The Giraffe FAQ 🦒

You are a member of the support staff at a popular zoo, responsible for assisting visitors and providing them with valuable information about the different animal exhibits. The zoo recently renovated its giraffe exhibit and has received many inquiries from visitors about giraffes. To address their questions and enhance their experience, you have been assigned the task of creating a single-page Frequently Asked Questions (FAQ) handout specifically for visitors interested in giraffes.

The handout will serve as a resource to educate visitors about the unique characteristics of giraffes, answer common questions, and provide important information about giraffe conservation efforts. Its aim is to enhance visitors' understanding and appreciation of these magnificent creatures while ensuring an enjoyable and informative experience at the zoo. Additionally, you discover that the primary attendees at the giraffe encounters are children between the ages of 3 and 16.

As a member of the support staff, you are responsible for creating a concise and informative FAQ handout that covers various aspects of giraffe biology, behavior, and conservation. The handout should address common questions and provide visitors with relevant information to deepen their understanding and engagement with the giraffe exhibit. Keep in mind the age range of the primary users when considering the kind of information they may want to know and how to word your handout for optimal accessibility.

To complete this project, follow the numbered instructions below. Remember, you must use the "place" function for the photo (s). This means you will need to save them to your computer. They are available in the instructions below.

Exercise Instructions

1. Create a new 3-paged letter-sized document in InDesign with facing pages turned off.
2. Use a generative AI to create text for this document. Use the details from the scenario above and what you have learned about prompt engineering to create relevant text.
    a. Note: The point of us using generative AI is to get us comfortable with using this tool. I will not be grading you on the quality or factual correctness of the text.
3. Incorporate the text you generate into your InDesign file.
4. Place one or both of the following images in your file, both of which were licensed through Unsplash.com: Image 1 / Image 2

5. Play with changing the type size, typeface, image size, columns, headers, etc.
6. Create 3 very different versions of the document (one for each page) that would appeal to the primary user from the scenario.
7. Export as a print pdf.
8. Create a post in which you describe your prompt creation process, outlining what you think went well and what you would change for next time.
9. Attach the document you created as part of your post.
10. Upload your post by Friday at 11:59PM.
11. Respond to at least two of your classmates. In your response, use the language of the design sins to either describe what your classmate did well or what they could improve upon in future assignments. You can also use other terms we have discussed in the class, such as usability and signal/noise. Complete your responses by Sunday at 11:59PM.

Assignment Prompt for Technical Editing

The Context

Choose a scenario:

1. You have an internship at a mental health clinic in [location blinded] that provides intensive outpatient programs, counseling, and therapy. Several of the therapists, care coordinators, and psychiatric nurse practitioners have observed that their patients could benefit from using mobile applications to practice wellbeing. Use a generative AI program to generate text on 5 mental health applications and edit it into an infographic that will be printed and displayed in therapists' offices.
2. You have an internship with a financial services company in [location blinded] that has just received approval to create its own instructional design department. You are working with a team that is preparing an annual report for the company's investors from the community, which will explain why the company chose to create the new department. Use a generative AI program to generate text on 5 educational technologies and edit it into an infographic that will be distributed as part of the annual report to the community investors.
3. You have an internship with a non-profit organization that helps aspiring entrepreneurs in [location blinded] with creating a business model. The staff at the non-profit have noticed that they spend a lot of time talking with clients about choosing a selling platform, and they would like to provide a resource for the clients to think through their potential choices. Use a generative AI program to generate text on 5 selling platforms and edit it into an infographic that will be hosted on the non-profit's website.

In all of the scenarios, you know that your organization aims to provide information to a user base that is equivalent to the demographics of [location blinded]. Thus, you know that, while English is widely used, a sizable portion of the population may use different varieties of English or other languages in their everyday conversation.

The goal of your project is to edit the AI-generated text and create an infographic appropriate for your users.

Goals of Editing

The infographic will benefit from substantive editing and copyediting, as well as editing for culturally and linguistically diverse users. In sum, this project draws upon all of the knowledge you gained this semester on editing technical and professional information.

One of your key decisions will be what to do in order to effectively communicate with the cross-cultural population of [location blinded]. Are there strategies that would appeal to all audience members? Should you edit one infographic in several ways to create different appeals for different audience members? What languages or language varieties would you use to inform as many people as possible?

Project Deliverables

1. An **edited infographic** that communicates the information from the AI-generated report. You do not have to use the exact same language as the AI does. You may edit or redesign this infographic in any software that you are familiar with, but please submit the final draft in **.jpg or .pdf format**.
2. A **progress report** addressed to your supervisor at your internship. This document (1-2 pages) should provide a brief overview of the edits made to the AI-generated report, and most of your progress report should reflect on your key decisions listed above: How did you edit a technical document for a cross-cultural audience?