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Abstract

Background: Accessibility of digital materials within workplaces continues to be an issue that is not readily and completely addressed through legal compliance and institutional policy. Despite the lack of marked improvement in digital accessibility, many continue to pursue a policy approach to accessibility including checklists and guidelines. Literature Review: Despite the attention paid to accessibility and surrounding issues by scholars in the field of technical and professional communication, there is little direction given to help practitioners to advocate for accessibility in the workplace. Research Question: Can common ground between institutional values and accessibility be discovered and leveraged to motivate value-driven accessibility? Research methods: This article uses user research interviews and common ground theory to code and analyze data obtained interviewing 18 university instructors to determine how instructors consider accessibility within the process of developing their course documents. Data was coded and analyzed to discover common attitudes towards accessibility. Results and Discussion: The data reveled that although instructors approached accessibility differently all were motivated to work for student success, which indicated common ground between instructor practices and accessibility, which suggests accessibility advocates can motivate value-driven accessibility by leveraging common ground. Conclusion: I used the revealed common ground to inform the development of a digital accessibility resource, which underwent usability testing. My research informed design process illustrates that despite institutional variability, technical and professional communicators can find and leverage common ground to move away from a singular, policy-driven approach to accessibility in favor of a more sustainable value-driven accessibility, which generates and supports long-term accessibility design.

Background

Perhaps the greatest change to the workplace in the last decade has been the change from print communication to digital communication. The digital turn means communication for the vast majority of users relies heavily on technology, a hallmark of professional and technical communication (TPC), but the digital turn should also mean a turn to accessibility strategies. For example, including alt text to images in proposals, naming links in emails, and using style headings in the HTML of a Word document makes the work environment compatible with the access methods of workers who are blind or experience low vision. These TPC accessibility practices can be a normed part of the document design processes to benefit many users across the ability spectrum, which potentially places practitioners in an empowered position of both perpetuating these barriers and removing them for the employees, clients, customers, and end-users who all engage in various ways within these workplaces.

Accessibility, then, sits at the very core of what society determines to be productive labor, whose labor is considered valuable [1] and whose abilities and labor contribute to benefit the community [2]. In other words, institutional practices define who gets to participate in political, social, and economic systems. The invisible assumption that workplaces are places of nondisabled bodies sets an impossible standard and definition of work that no body can achieve every day and in every situation [3]. And for bodies that sit outside of the typical definitions of "abled" bodied workers, the effects of these limited perspectives of participation have devastating consequences. For example, 58% of blind and low vision members of our American communities are unemployed [3]. The digital communication documents occurring in these workplaces can also be a factor [3].

However, current practices within TPC seem to lean toward a one size fits all approach to accessibility has failed their purpose. Rather than addressing accessibility as a foundational ideology of design meant to build inclusivity, to ease what has been considered the burden of accessibility, institutions have developed policies, guidelines, and formulaic

responses but without consistent or major successes. These policies and guidelines consistently term accessibility as an accommodation for a specific population and focus on correcting the product rather than the process of accessibility. Typical views of accessibility are also rarely framed as an asset or as a tool to move corporate or institutional goals and values forward, but rather as a labor of necessary compliance. In this article, I argue that this short-sighted approach to accessibility has yielded little results and has caused undue pushback to the cause of accessibility and to r inclusionary access, accessibility practices must be value-driven and built on common ground.

Understanding that actions towards accessibility practices do not occur from a universal motivation also means understanding that to create a culture of accessibility within any workplace, demands weaving these practices within the institutional values and practices already in place. Of course, that means investigating where the threads of accessibility tie into the institutional fabrics and how we can then use those threads to our advantage to improve the practice of accessibility; this is the work of common ground. I contend that the struggle for accessibility need not be a head-on collision between accessibility advocates and institutional structures but rather built on shared goals and driven by shared values.

To motivate sustainable, value-driven accessibility practices, I build on the concept of common ground, which claims that if stakeholders share some element of shared value in the practice, they will be willing to participate and maintain the practice. I first turn to two recent but distinctly different examples of workplace accessibility responses, Domino's Pizza Incorporated and the LEGO Group to understand the potential differences between policy compliance accessibility and value-driven accessibility. These two examples form the foundation of my research question. I argue for a more context specific and common ground based approach to accessibility informed by research I conducted with instructors at a public university. I used technical communication research methods to approach the question of how to motivate value-driven accessibility. I first investigated the institutional policies of the institution and then turned to the practices of the individuals within the institutions to determine where and how to motivate value-driven accessibility. The interview data highlighted that instructors, who create digital documents within the institution, are potentially willing to incorporate accessibility practices if they believe it is in the best interest of their students. The common ground between the need for accessible course documents and the instructors' practices is the desire to benefit all students' success. I then explain how I framed accessibility around this established common ground in a web-based accessibility resource to motivate accessibility practices. I conclude my argument with a call to action for accessibility advocates to begin the process of incorporating research-based accessibility motivations into the institutional practices and goals of their workplaces.

Literature Review

Accessibility has traditionally been framed as an answer to disability and placed in conversation with accommodation. However, accessibility and accommodation are not interchangeable terms. Accommodation is an action that occurs for a specific population while accessibility is an action that occurs to benefit access to information for all users. I use "all" here because it is the goal of accessibility even as I recognize that designing documents that are truly accessible to "all" users might not be possible given the infinite variables that accompany the human experience. Accessibility also has practical definitions. Access, according to Williamson [4], "describes the ability to enter into, move about within, and operate the facilities" of a designed environment, which includes environments such as a website or an instructional document. Accessibility is the way communication designers make information available and usable for users; "it means how easily and effectively a product or service can be accessed and used" [5]. For the purpose of my work, I consider access in terms of how users access information through TPC practices. Every designed communication is a built environment with methods of access. The words we choose, the format we design, the technology we use, are all elements which develop access to information.

Current scholarship in TPC continues to address accessibility through discussions on issues such as web design [5], [6], [7], [8], Universal Design [9], [10], [11], design process and practices [12], [13], [14], and User-Experience Design [15]. Many technical communication scholars have spent countless hours carefully investigating how to include accessibility in the TPC classroom [16], [17], [18], [19], [20] and accessibility specifically in online education environments [21], [22], [23]. And there are also limited discussions on accessibility in the workplace [3], [24]. This large body of work is important in continuing the much need work to shift the ideology of accessibility within TPC practices. However, this work is still too limited and doesn't give practitioners a clear understand how to adjust the culture of their organizations toward one where accessibility is prioritized from the beginning of projects. As Sean Zdenek [25], a disability scholar, ambitiously suggests, communication designers should work to see that

"accessibility is defined in such a way that no one is disabled to begin with" If TPC is to succeed as advocates for accessibility and embrace Zdenek's vision, then scholars and practitioners have to gain a better understanding of contextual approaches to accessibility.

In my reading of the scholarship and high-profile corporate examples, I came to understand that there are two dominate approaches to accessibility: policy driven and value driven. Policy driven approaches are generally tied to legal compliance. In the US, Section 508 of the Rehabilitation Act protects against the discrimination of people with disabilities. Although Section 508 specifically regulates access to federal documents, it has also been used to regulate access to websites in the private sector. Highly publicized legal cases against M.I.T., Harvard, and Berkeley led the Department of Justice to claim that these inaccessible educational websites are in violation of the disabilities act [26]. Other sectors outside of higher education have not been immune to legal cases. I want to highlight one such legal case here since it speaks directly to the necessity for TPC to change how it approaches implementing and thinking about accessibility.

In 2016, the Robles v. Domino's Pizza, LLC case was filed in the Central District of California. The case was filed on behalf of Guillermo Robles, a blind man who was unable to use the Domino's Pizza website because it was not fully accessible to his screen reading device. In March of 2017, the case was originally dismissed because, as the court documents explain, Domino's was not given due process as the Department of Justice had not given full guidance. The case moved to the Ninth Circuit Court of Appeals who ruled on the case in January 2019. This ruling explained the Americans with Disabilities Act (ADA) applied to the public website and app: "The Act mandates that places of public accommodation, like Domino's, provide auxiliary aids and services to make visual materials available to an individual who is blind . . . the panel stated that the ADA applies to the services of a public accommodation, not services in a place public accommodation including the website and the app" [27]. Domino's then appealed to the Supreme Court, which denied to hear the case leaving the lower court's ruling as the latest precedent. Domino's continues the legal fight because they believe "in the need for federal standards for everyone to follow" not because they recognized a need for greater access but because they felt the "tsunami of website accessibility litigation" was exploitive [28]. Although this response may be disheartening to hear for accessibility advocates, it aligns with Domino's corporate mission; the company was found in 1960 with one goal in mind: to be the recognized world leader in pizza delivery [29]. The pizza giant framed accessibility as a barrier rather than a motivation toward their company goals. This case is what I refer to as a policy driven approach to accessibility, which much of the research in TPC has critiques [30], [31], 32].

At the same time that Domino's was fighting and questioning exactly what accessibility meant for them, the Lego Group was voluntarily, proactively expanding methods of access to their products. In response to a long-time customer, Matthew Shifrin's, love of Legos and determination to make Legos accessible to children who are blind or experience low-vision. In response to Shifrin's determination, the Group spent company resources to voluntarily develop and distribute audio-based and Braille instructions to accompany their text-based, visual instructions. These instructions are available free online and are currently available in English. The Lego Audio & Braille instructions project went live in August of 2019.The Braille instructions can be translated by a Braille reader device that converts the digital text to raised Braille characters [33]. This accessibility practice was not legally mandated. Instead, The practice was a goodwill action that, Fenella Blaize Charity, The Creative Director for the Lego Group, claims "brings people together, helps build confidence and sparks creativity" [34]. This accessibility project aligns with the company's other practices and self-governing mission statement, which includes a resolve "to inspire and develop the builders of tomorrow through the power of play." This case provides an example of what I call a value-driven approach to accessibility.

Domino's and Lego provide TPC specific examples to help understand current organizational approaches to accessibility. Value driven approaches to accessibility complement current research in TPC that move the field and practitioners away from policy drive (or legal approaches). Research that has emphasized universal design [35] or inclusive design practices [36] have not quite gone far enough. Value drive approaches intersect with the "ideology of inclusion" advocated by Oswal and Meloncon [11]. Value-driven accessibility is an ideology the forms the foundation of accessible design practices. Rather than a checklist of specific actions, value-driven accessibility considers the broader implications of accessibility. It is not about actions; it is about the people granted inclusion into social, political, and economic participation. Value-driven accessibility centers all users and approaches the design table with the understanding that the end goal is to develop a document, product, service, or experience that is accessible to all bodies. Value-drive accessibility can be decontextualized, meaning that it is not focused on a specific

action or a specific context but is rather a guiding principle of design choices. This type of approach frees accessibility from specific technologies and from specific software interfaces that are vulnerable to updates and upgrades. I might write a corporate policy demanding all video instructional materials should be captioned. This action certainly increases the accessibility of digital materials, but is it truly accessible? Following this policy, I caption a screencast instructing other employees how to activate the company database but am not asked to consider the usability of the caption, which visually covers the navigation elements on the screencast. This placement means a user must choose between viewing the captions or viewing the information on the screencast. The video is compliant with the policy but not accessible. Value-driven accessibility would ask me to consider the actual use of the captions, it would have me address accessibility from the experience of caption users. This shift in focus empowers the practitioner to make decisions that are relevant to the outcome and to the needs of multiple users. It invites the practitioner to consider not if the materials are accessible, but also ask how and by whom?

Gaining a greater understanding of a policy driven or values driven approach to accessibility was a key question I hoped to uncover in my study explained in the next sections.

Research Question

The cases of Dominos and Legos when read alongside existing literature in TPC highlights that there are many contributing factors to any corporate decision and practices. However, the purpose of their self-proclaimed missions, as seen in the two cases, might be a clue into their different views of accessibility. Why does one corporation challenge mandated accessibility policy and another corporation voluntarily addresses barriers to increase accessibility? The Lego Group recognized accessibility as part of their corporate practices and Domino's Pizza Inc. saw accessibility as a legal barrier demanding necessary compliance or just another price of doing business in America. It is not difficult to imagine how corporate perspectives on accessibility influenced the practices of TPC practitioners within each of these institutions. However, these examples also help accessibility advocates to recognize the potential impact when accessibility practices align with already established organizational structures. What I learn from Domino's and the LEGO Group cases is that if accessibility continues to be framed only in terms of and in relation to disability policy it will continue to be a hit and miss application – some will and some won't. In this vast variability of institutional attitudes, is there common ground between the need for value-driven accessibility and instructional structures and, if so, how do accessibility advocates leverage it to motivate proactive, value-driven accessibility within their organization?

Research Methodology

In order to begin to answer the research question, I conducted a qualitative study at a Western land-grant university to determine how to address the accessibility of course materials developed by instructors and uploaded into the Learning Management System (LMS) for student use. Because instructors develop instructional materials to facilitate access to information through their course documents, I treated these instructors as technical communication practitioners working within the University organizational structures to determine the impact of common ground on approaches to accessibility. Just as in other workplaces, instructors do the work of technical and professional practitioners, so I intentionally viewed the participants in this way to ensure the research is applicable across other organizational settings.

Defining the Institutional Context: Just as it was important to understand the institutional climate of Domino's and LEGO to understand their approach to accessibility, my research began with an investigation of accessibility at the institutional level. In 2010, the University's provost organized a policy committee to investigate compliance with federal guidelines regarding the accessibility of digital materials. The committee included members of the administration, the technology department, the faculty, and the student population. The committee's first order of business included investigating the University's websites for compliance with the Rehabilitation Act, Section 508, which governs electronic material and technology used by the federal government. Under this Section, accessible means that a person with disabilities can use the technology as effectively as a person without disabilities. The Section applies to federal entities and other entities that interact with these federal entities. Although non-federal digital may not fall within the influence of Section 508, other federal, state, and local laws regulate the access of digital materials. And as I witnessed in the Domino's lawsuit, the Department of Justice has used Section 508 as a standard for digital accessibility. In the shadow of these legal repercussions, it is possible to imagine that the University accessibility committee felt pressure to respond to the possibility of legal consequences.

The committee's initial investigations were more comprehensive and included not only the instruction's websites but also the content uploaded by instructors into the Learning Management System (LMS). The committee found all institutional websites and digital materials lacking and realized extensive work was needed to bring them into compliance. In response to these findings and realizations, the committee hired the University's first Accessibility Coordinator and charged the coordinator with addressing the accessibility of the University's digital information (C. Phillips, private communication, Mar. 2017). Although compliance with legal guidelines and fear of costly repercussions initially motivated these actions, the committee rightfully expanded their investigation to include other digital University materials. The policy committee observed that despite hiring an accessibility specialist, offering training, constructing several digital resources, and offering one-on-one assistance to instructors through their center for instructional design there was little change in the accessibility of course materials. The actual quantitative findings by the committee were withheld from public access (C. Phillips, private communication, Mar.2017). Despite the committee's findings of widespread inaccessibility, the committee chose to adopt a University policy (Policy 559) focused almost exclusively on website materials. Because materials within the LMS are legally covered under the accommodation system, meaning access is created individually for students with disabilities, they do not currently fall within the jurisdiction of the disabilities acts. The committee seemed to feel no obligation to invest further because they deemed the University had met legal obligations.

The University Policy 559, in part, "seeks to provide equal access to all University programs and services provided through electronic and information technology" [37]. Despite the claim to value accessibility, the policy's limitations reveal the University approaches accessibility only as a legal mandate. Furthermore, although the policy links to legal compliance and discusses the idea of creating access, the policy does not determine who is responsible for this work. The limitations of Policy 559 do not hold anyone accountable to oversee that course materials meet compliance. The policy suggests compliance with legal accessibility such as the WCAG 2.0 and Section 508 but does not address how instructors could or should proceed to create accessible course materials. There is no implementation strategy to coordinate what accessible practices might look like for those connected to the development of digital materials, such as instructors, which leaves the policy a legal response not an informed practice, and keeps instructors removed from accountability to address accessibility even though they are at the forefront of course material production. Accessibility remained a token idea solidly dependent on legally mandated accommodations for students with disabilities with no path to broader, value-driven, accessibility goals. Like Domino's, the University limited their responsibility to legal compliance, which had done very little to impact the accessibility of course materials. Thus, I turned my research focus away from policy and focused on perhaps the more difficult task of motivating instructors, those that practice professional and technical communication within the instructional structures, to consider accessibility as a practice that aligned with their already developed values and goals.

Participants: I conducted 18 interviews with instructors across the 8 colleges within the institution, both tenured and nontenured. [insert a sentence here that explains why you wanted representation across the colleges and the tenure/nontenured rational. Not long. Truly a sentence about each. These interviews were conducted under IRB approval (IRB #9001). I randomly selected names from the publicly available University faculty directory. If the invited faculty did not respond or declined the invitation, I selected and invited another instructor from the directory. During the recruiting process, I had not received confirmations from any invitation emails I personally sent to faculty in the school of business, which lead me to contact the Dean to obtain his support for my project. With the help of the Dean, there were four faculty members from the School of Business, three tenured and one nontenured. One of the limitations to this approach is that I did not use ability as a criterion. I respectfully acknowledge the importance of ensuring research about disability include people with disabilities. However, in this case, I needed views of non-disable people to better understand what keeps people from starting the design process with accessibility.

Interview Instrument:

I employed a semi-structured interview protocol for this qualitative research. I developed a set of standardized question to give comparable consistency across the data, and welcomed additional dialog to ensure participants had enough leeway to talk about their individual practices and perspectives in their own terms. I did not want to risk neglected important information because of my own limited perspective on possible document design processes. Each participant was asked five questions (see Appendix I) throughout the interview, but because of the organic nature of the conversation, additional unique questions were included in each interview. For example, when asked what would motivate them to take the time to ensure their digital course materials are more accessible and usable for all students, an instructor suggested having a University policy regarding accessibility would create motivation to act. This

response prompted me to ask if they were aware of any current University policies regarding accessibility because I thought it helpful to know if they were aware of the work conducted by the accessibility committee at University. Because the interview questions and subsequent conversations varied, the interviews ranged in time from 15 minutes to 75 minutes.

Coding the Data: The process of reading through the 18 responses eventually revealed repeated themes. I used an inductive coding process and labeled each of these patterns as they emerged in general categories. I subdivided categories thematically as they presented. When a response did not directly correspond to an established code, I created a new code. I assigned responses to multiple codes as applicable, and no responses were left uncoded.

I began the coding process by looking at the interview holistically and coded the participant's view of accessibility as either policy-driven or value-driven. Policy-driven participants followed the accommodation model, assumed course materials were accessible unless directly told otherwise, and placed the responsibility of acknowledging nonaccess on the student. Policy-driven participants also discussed accessible course materials as altering course materials for a single student in a specific context but not a general practice. Value-driven participants discussed working with university resources as they designed their courses, working with an accessibility checker, asking students about their level of access, and using accommodations made for one student to consider access issue for the entire class. This initial coding indicated that more of my participants (12 interviews) considered accessibility as a policy issue. Six participants revealed a value-driven perspective on accessibility. A wide view of the data revealed that instructors' motivation to consider accessibility in their practices might not strictly align with institutional motivation, which required determining when, how, and why instructors consider accessibility as a policy and when they viewed accessibility as a value.

To better understand the motivation and practices of each of these instructors, I broke the interviews into individual responses (n=217). A response was a single topic or focus, which could mean a single sentence or several sentences. I coded these responses into the four thematic categories that emerged: policy-driven, value-driven, barriers to accessibility practices, and motivations. When I first began coding the individual responses, I had not considered the possibility that instructors may want to address accessibility but specific barriers may inhibit their ability to fully practice accessibility. This reoccurring theme created a need for the barrier code. When an instructor specifically mentioned a reason they created, altered, or revisited course materials, I coded these responses as motivation. Although I could initially code many responses as either following the policy-driven or value-driven considerations of accessibility, many responses also required additional coding because of the complexity and interweaving of information within the response. For example, I assigned multiple codes to the following response regarding the use of closed captioning for lectures:

> I am all for being proactive, don't get me wrong, but it's just a lot of transcribing. Every single lecture, every single day of every single week, and updating it every single time. It's not like I can do it once a year, or once every couple of years…so I have not taken on that amount of additional work . . . I hate to say it needs to be required, but I just meant if I had a student who was like, I'm not learning this way. I have to learn this way; Then I would absolutely just get it done for that semester.

I first coded this response as policy-driven because it indicated following the accommodation model and relying on student action. and then I also coded it as a time barrier to accessibility. The instructor clearly wants her lectures to be accessible to her students and would do so if asked, but she does not have the time to take on the task without further motivation. Because I did not limit the information instructors gave in their responses, many of the responses required this type of multiple coding. When Policy-driven interviews were broken into individual responses, they revealed that instructors considered value-driven accessibility at times (see figure 1) as they designed course materials, which indicated the potential of common ground between all instructor practices and accessibility.

Table I

Coding Schema:

Whole Interview Code	Policy-Driven Responses	Value Driven Responses	Barrier Responses	Motivation responses
Policy-Driven Interviews (12)	61	23	14	19
Value-Driven Interviews (6)	19	54	9	17

Table I illustrating individual response coding in relationship to holistic coding of the entire interview.

Results

In the following section, I use examples from the interviews to illustrate the patterns with the content and specific attitude toward accessibility in each of the coding groups. I then use these examples to respond to my research question.

Example of Policy-Driven Responses: The responses I coded as policy-driven captured themes such as relying on students or the University to take responsibility for access and a belief that if the material is digital, it means it is accessible. One respondent indicated they used the Disability Center to work with a student who could not access their materials: "I've had students who were blind and a deaf student. The [Disability Center] sent me an email to let know they would need accommodations. I didn't make contact. I sent them my material, and they fixed it and made it work for the student." This particular instructor seemed to view accessibility as something beyond their instructional responsibility or something that they should not address on their own. When asked about the accessibility of their course materials, one respondent observed: "that is something the [Disability Center] does as an accommodation." The response illustrates that instructors do not always view their accountability to course material accessibility but view themselves as accountable to comply with the policy, which places accessibility within the responsibility of the University.

Instructors also indicated a desire to comply with administrative policies. An instructor indicated accessibility was a University policy issue, "I am not familiar with a specific policy regarding accessibility. But I would follow any direction given by the University." Another instructor attached motivation: "if it came from the dean or the department head said that." I understand these instructors to be articulating the influence of university policy on their design practices. Although most instructors like to discuss their commitment to student success far more readily than discuss their commitment to administrative policies, this need to comply to administrative policies cannot be discounted as part of the context that informs instructor practices.

Even more prevalent in the response data is the notion that students are responsible for ensuring they have access to materials. One respondent observed that they "generally rely on graduate students to tell" them that the course materials are not accessible. Another indicated they would consider access "if the disability issue came up with students, but it never came up." Other instructors interviewed revealed their frustration with students who do not seek accommodations from Disability Center to address access: "The problem I usually run into are when students like 'oh, yeah, no, I meant to go to the [Disability Center].'" Perhaps the most troubling of responses is the observation that some instructors do not see the need for considering broad access for all of their students. As one instructor claimed, "I mean I not motivated to create excessive materials for a population that is not in my class." These responses illustrate that the instructors I interviewed often rely on the student to indicate when something is not accessibility, which elevates the instructor's responsibility. These instructors seem to consider their course material accessible until the student takes actions to either receive legal accommodation.

Although these responses were difficult to swallow as I recognize the implications of these instructors' perspectives on the individual student, these actions are not wrong. They illustrate these instructors' practices are influenced by many potential factors including the institutional perspective on accessibility. These instructors are doing exactly what they were trained to do, comply with university policy.

Example of Value-Driven Responses: The responses I coded as value-driven consideration of access revealed some instructors begin the course design process with accessibility in mind. These instructors discussed reaching out to the university resources before they began writing new courses or before they added new materials to an existing course. One of the instructors I interviewed explained they gained information about accessibility during a voluntary Instructional Support sponsored conference on campus: "[the university] has like conferences all the time for teaching excellence and E-learning workshops. They had this whole checklist of a rubric for how to have a good Canvas page. Some of those things had to do with accessibility issues." This instructor was able to adapt some of those ideas into their course designs the same semester. The conference helped to create an awareness of accessibility of course materials the instructor had not previously considered. As one participant explained, they had attended the conference because they wanted to do "a better job" at using LMS to share information with students.

These value-driven responses also illustrated a recognition of accessibility design practices as they discussed using HTML and captioning. One respondent indicated they had learned from another source that screen reading devices could read HTML text easily, and so they had "started to make sure all of [their] digital course is in HTML." Although these instructors did not always have the technological skills to create the access they sought, they were aware of the need and reached out to sources that could assist them: "I've been questioning my own materials I don't do any closed captioning, and I have talked to (a University resource) about that." This instructor recognized they needed to take action to increase the accessibility of their videos. They did not wait to be told but rather sought out assistance prior to a student requesting this access method through accommodation. Another example of value-driven access discussed in the interview is the continual use of course materials adapted for one student with an accommodation into the general course materials: "I had a student that is registered with the [Disability Center] for one of those disabilities, the [Disability Center] come in and do all that and then it's there on the class permanently. I do have a couple of my online classes where all of my videos are captioned." Each of these sample responses indicates that several of the instructors I interviewed are aware of accessibility issues and are using their knowledge and resources to begin to address the issues to the best of their ability because they value access for their students. These responses indicate there is an accessibility discussion already occurring at University that can be enhanced to motivate broadly considered access within the normalized practices of instructors.

Barrier Results: There are many barriers to altering course design practices for instructors. Change does not come easily and involves considerations of multiple factors. I found three important barriers for instructors as they consider accessibility: learning outcomes, knowledge, and time.

The first barrier the instructors in my interviews discussed connected to their learning outcomes. Instructors are concerned that changing their course designs will interfere with learning objectives. One participant worried that offering full access to their materials would keep students from fully engaging with the information: "I post [PowerPoint slides] . . . Sometimes just to be tricky and keep them on their toes, [with] a few pages missing. So they take notes, and they pay attention." The instructor indicated using incomplete slides to help students pay attention to the information during the lecture. However, this practice also limited access to students who use must use the slide handouts for access. For example, a Deaf or hard of hearing student might need the slide handouts to ensure they do not miss information given only auditorily. A student with autism or ADHD might need access to the information of the slide handouts to protect their focus from distractions during the lecture. The instructor specifically inhibited access because they felt it benefitted their learning outcomes.

The second barrier I discovered in the data was knowledge. Instructors also realized they did not have sufficient knowledge regarding accessibility to alter their practices. Instructors noted their lack of technical knowledge to use the software such as Word or Adobe to help add accessible features to their documents. Many instructors aware of closed captioning conveyed their lack of specific knowledge regarding the application. One participant explained his frustration with wanting to add captioning to his lecture series for his distance education students. He turned to other instructors for advice but realized "It doesn't seem like anybody knows how to do that yet." Another participant admitted they did not realize the impact of their actions. They did not have the knowledge necessary to question their current practices. Their lack of accessibility was not due to a willful disregard for students, as one participant explains, "If I knew what I was doing was a barrier for the student, but it is hard to remember to do everything." Instructors also lack the knowledge to determine if what they are currently producing is adequately accessibility and look for guidance. As one instructor explains, "We don't get feedback. That would probably be useful, to get some feedback from the university." Although this instructor's response does not illustrate a proactive perspective as they were waiting for

someone to tell them their course documents are or are not accessible, it does highlight the desire for knowledge. This instructor's response also indicates a recognition that they currently lack the knowledge necessary to accomplish a change in practices to address accessibility for all students across the ability spectrum.

The third barrier and perhaps the greatest barrier to altering practices to include accessibility is a perception of discrepancy between the time involved and the impact of those efforts. As one participant observes, "I've also asked about making videos like course lectures to record, so I've talked to [Curriculum Designers] about these things, but I've never set any of these ideas into action yet because they're time intensive." Again, it seems these instructors care about accessibility or altering their practices but barriers, such as time, continue to block the path.

Motivation Results Student success and student learning is the motivating factor for most instructors in the interviews. A participant's short response, "If a student needed it, I would do it," typifies the attitude of most instructors in regards to implementing accessibility strategies into the design practices. Another response reinforced this perception explaining, "I would be more inclined to do it if I had a student who was hearing impaired and needed that kind of transcript." Instructors also conveyed other motivations for creating course materials, which were extremely student driven. Instructors used student evaluation, comments, and grades to inform their decisions about course materials. A participant observed how he responded to student comments: "Occasionally I get some stuff that didn't work, that [students] didn't quite understand in the class. . . then I am going to go back and readdress it within the instructions." Instructors also determined course materials based on their own perceptions of the value of the content. However, even these decisions were informed by what they believed would benefit the students' learning experience in their class.

I used the data generated from the interviews to develop a persona the represented the instructor population, which I used to design a web-based resource that aligned with common ground by framing accessibility practices. I designed the resource to responded to the barriers and challenges that impacted instructor practices, conducted usability testing with instructors. For example, I built instructional information in small sections of instructions to allow for quick and compartmentalized access. I included information about how each accessibility strategy benefitted all students and potentially aligned with valued pedagogical practices. I worked with my University partners to weave this resource within institutionalized distribution methods. Rather than relying solely on a policy-driven response, this resource began a conversation that promoted value-driven accessibility because it asked instructors to consider how they were and how they could address accessibility during the design process. Framing accessibility as a tool for student success shifted the institutional culture surrounding accessibility from conversations about making materials ADA compliant to conversations about how to best serve the needs of the individual student. For example, the University began developing a workshop to help instructors ask students about their access experience and then use this information to alter their practices. As with any organization, change in culture occurs over time. However, these conversations are mere beginnings but they are clear indicators of institutional sifts toward a value-driven approach to accessibility

Given the complicated landscape of what is and is not legal accessibility, many have turned to other means to persuade companies and practitioners to adapt accessibility practices including empathizing with users with disabilities, educating future practitioners, and outlining the value of a diverse workforce. What current TPC research and the Dominos and Lego cases show is that to achieve accessibility via a value-driven approach requires an emphasis on a common ground, which helps establish essential buy-in from stakeholders. Common ground comes from rhetoric scholar, Kenneth Burke, who describes the power of common ground in terms of identification. Burke's identification theory emerged in the 1950s after a violent and destructive display of rhetoric in the first half of the 20th century that ended with the Holocaust and the deployment of nuclear weapons. Burke saw "old" rhetoric of persuasion as the use of manipulation to overpower one perspective over another, which could be motivated by destructive aspirations [38]. He used identification to encourage and to motivate transformation through connections between differences rather than through competitive ambitions. Burke [39] helps me to envision change built on cooperative means that build up rather than tear down: "one does not want merely to outwit the opponent, or to study him, one wants to be affected by him . . . in brief, to learn from him" (p. 284). Identification forms alliances and collations that may be temporary for specific outcomes such as when political opponents come together to campaign for increased funding for public parks because both value green space in urban developments. If there is no identification, there is no motivation to act, and identification in this sense occurs through common ground. Common ground is the place where two apparently differing or even opposing ideas meet. It is a place where the foundation values that motivate one action or idea overlap

with the foundational values of another. Finding this common ground requires investigating and deconstructing the action to determine what core values motivated the action and determine what barriers restrict that action. Through this deconstructing of actions shared values and common are revealed.

By framing accessibility as a benefit to the success of their students, the common ground between the need for accessibility and current instructor practices, it is possible to motivate long-term consideration of access in their course document design practices. Although common ground is not the only tool available to consider change, I applied this framework to the issue of accessible course materials because long-term change does not seem to occur through an arbitrary policy of guidelines but through shared motivation. I had learned accessibility is not addressed through strict policy nor checklist such as the WCAG. These persuasive tactics are finite and do not impact the way the instructor understands accessibility as a core principle of their practices; it does not empower them to think broadly about their accountability. I needed to motivate instructors to fully buy-in to addressing accessibility. These Instructors, as any other contributors in workplaces, are not the enemy to shame into submission, but the ally who should be embraced to construct better outcomes for both themselves and their students. Rather than merely telling instructors what they must do, or forcing them to act in accordance to the limited perspective of a policy, finding common ground meant viewing accessibility as ideology of inclusion that invites all of their students to succeed.

Because instructors believe most of their students can access information through their current document design practices, they cannot see the benefit of changing practices for the student who may never attend their class. And under current academic design, there is a strong possibility that such a student may not. However, what is not often considered is the impact of designs that exclude students. During my interview, one instructor asked himself if the vetting practices used by his program to determine entrance were discriminating to students with disabilities. This was an important moment in my research study because I realized that he recognized – if only for a moment – the role systemic structures play in determining which kind of abled bodies fill his classroom. It is this broader awareness across contexts that begins to answer my research question. The instructor identified accessibility beyond a list of specific practices and termed it as a value, as something that counters discrimination. This is the practice of value-driven accessibility.

The data revealed further glimpses into potential answers to my research question. The interview data indicated that although most instructors do not always consider how or if students can access their materials, they are willing to take actions that will benefit their students. They spend countless hours revised assignment descriptions, syllabi, and course schedules to ensure clarity. They pour over lecture notes, rerecord lectures, and revise slide presentations over and over because they want to provide their students with accurate and usable information. They talked about spending time altering materials and finding new materials to help their students learn up-to-date concepts. These labors reveal that instructors are motivated to spend time altering course materials and learning new skills as long as their efforts benefit their student-oriented outcomes. They do not view this work as extra, unpaid labor. They do this work because they recognize its value to student success. Much like Domino's they didn't readily view the common ground between their values and accessibility. In this way, the interview responses highlighted the common ground that merged instructor's values with accessibility. This common ground could recognize what instructors were already doing that lead to success of their students and leverage these practices to motivate proactive, value-driven accessibility. Shifting institutional cultures to those of value drive—what Oswal and Meloncon [11] have called an ideology of inclusion—requires not a focus on policy, but rather, rich accessibility requires a mutual, long-term, buy-in to the practice, which occurs when the needs and values of all stakeholders are met and included. Stakeholders invested in a practice tend to voluntarily maintain that practice, which is why motivating value-driven accessibility must be framed around common interest, common goals, and common values, which means centered on common ground.

Conclusion

Although this interview study addresses a specific type of workspace, the approach I used to research approaches and practices within institutions is broadly applicable. Technical communication research methods can benefit the way an accessibility advocate frames accessibility in a wide variety of workplaces. It is not revolutionary to consider audience and purpose when considering how to address workplace problems and how to use technical communication practices to solve these problems [40]. It is not revolutionary to view technical communicators as advocates for change [41]. Accessibility advocates will work to find the opportunities, to find the common ground, and to move accessibility into the forefront of workplace goals and values. Technical communicators have the knowledge, training, and tools available to do this work.

To change design practices with long-term, far-reaching implications, I needed to motivate instructors to consider accessibility as part of their normalized practices. I focused motivation on illustrating that accessibility aligns with what they were already working towards or on the common ground. We could then work toward changing those practices to be less about individual actions wholly reliant on a checklist and obligatory compliance to policy and more about ensure students could access information with ease. Using technical communication research methods and interviews to investigate instructors' course material design practice, I was able to understand what values and goals background their work that align with accessibility.

Working within instructional framework and existing goals requires research and careful planning. As with any research, the first actions necessary is to be clear about the purpose of the research and to understand the potential links between the data and future "actions, decisions, and advocacy" [42]. It is also essential to know which research instruments will best fit the purpose and potential outcomes. For me, the research began with an investigation of the infrastructure. This important action offered a necessary view of and working knowledge of the moving parts within the organization [43]. Because the work of accessibility is about designing for users across the ability spectrum rather than designing for the default, assumed able-bodied user, I advocate for a user research approach, which includes but is not limited to field research, focus groups, interviews, personas, and usability testing, but could also include other technical communication research methods [44], [45], [43]. Accessibility advocates should determine best research methods informed by the unique characteristics of the workplace rather than on a uniform action checklist that tend to reduce the complexities of accessibility to legal statutes or organizational mandates.

The implications of this study for TPC include:

- TPC needs to build research support for practitioners in the workplace
- TPC scholars and researchers need to intentionally consider accessibility beyond the confines of the TPC classroom
- TPC needs to train practitioners to advocate for accessibility within the current structures of their work environment
- TPC needs to investigate the practices within the workplace of TPC such as academic programs, professional organizations, publications etc.

Technical communicators within the organization may not be able to infiltrate the innerworkings of policies and practices at all levels, but they are not without power. As my study has shown, organizations wanting to move toward more accessible practices can begin by asking questions specific that investigate organizational structures, such as

- What are the current accessibility practices and policies?
- Who is performing these practices?
- What are the potential barriers or challenges potentially impacting accessibility?
- Where does the goals of accessibility align with current practices, current goals, and current values?
- Where can accessibility strategies be implemented into the processes of the institution?
- Where can changes be made to impact accessibility practices within the instructional frameworks?

These actions may include small alteration to practices throughout the institution and need not be limited to a top-down mandate.

If the current, policy-driven methods of addressing accessibility are not working, and the growing number of accessibility legal cases suggest they are not, then we, as accessibility advocates, must alter our tactics. Rather than relying on a one-size-fits all approach to accessibility, this complex, research-based approach to accessibility practices has the potential to create sustainable accessibility practices. In order to develop a Lego-like environment that easily invites and embraces value-driven accessibility practices, accessibility advocates can find, and amplify areas of common ground within the unique frameworks of their specific environments.

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Appendix I

Standardized Interview Questions

- Is there anything you do or consider when creating digital course materials to ensure they are accessible and usable to students?
- Have you ever worked with CIDI or the DRC? If so, what did that process look like?
- If you are already considering diverse/multiple access, what is your motivation for doing so? If you are not, is there anything that would provide motivation or assistance for you to take the time to ensure your digital course materials are more accessible and usable for all students?
- What would motivate you to help other instructors to consider accessibility across campus?
- How much of your course materials are reused each semester?