Scalar Transactions and Ethical Actions in TPC

Kerry Banazek,[1] Rabiatu Mohammed,[2] Kellie Sharp-Hoskins,[3] Kavita Surya,[4] and Akram Zouaoui[5]

1 New Mexico State University

2 New Mexico State University

3 New Mexico State University

4 Clayton State University

5 New Mexico State University

Abstract

In this collaboratively composed article, we both theorize and dramatize the act of paying attention to scalar dynamics. In particular, we draw on the concept of transacting scales in order to complicate how "ethics" materialize in technical and professional communication (TPC). Because ethics materialize in relation to particular contexts and events, in the second half of this article, we show affordances of our approach for TPC through case studies animated by personal stories. We hope this will encourage readers to stay attuned to the particularities of embodied experiences as we theorize with unwieldy complex systems. Our cases speak to international student enrollment, matriculation, and retention in TPC programs and also general education TPC pedagogy.

In this collaboratively composed article, we both theorize and dramatize the act of paying attention to scalar dynamics. In particular, we draw on the concept of transacting scales in order to complicate how "ethics" materialize in technical and professional communication (TPC). Because ethics materialize in relation to particular contexts and events, in the second half of this article, we show affordances of our approach for TPC through case studies animated by personal stories. We hope this will encourage readers to stay attuned to the particularities of embodied experiences as we theorize with unwieldy complex systems. Our cases speak to international student enrollment, matriculation, and retention in TPC programs and also general education TPC pedagogy. Importantly, their ethical stakes are high—but not uniformly so. The authors whose stories anchor this article claim a wide range of identities and communities, which means we have experienced those stakes in varying ways. While two of us have direct experience being international students, following Walwema and Arzu Carmichael (2021) we argue that international student voices and the fraught positionality of international workers deserve to be both centered and allowed to exist in complicated relation to one another more often in TPC discourse. Of course, things like nationality, racial and gender identity, life experience, and even personality differentiate us and our scholarly perspectives. Moreover, our case studies and our bodies are imbricated in a variety of systems that are difficult to describe, let alone conceive of changing in ethical, lasting, justice-oriented ways. Claiming this difficulty as shared exigence is what has prompted us to theorizations of scale, scalar transactions, and complexity. These frames give us a way to imagine—and invite you to imagine with us—how multiplicity and difficulty might serve as imaginative assets when facing seemingly intractable ethical issues in TPC.

In recognizing these complexities, we are not alone. Recent trends in TPC scholarship direct attention to its scalar entanglements—to ways TPC theories, concepts, practices, processes, and products do

not merely exist *on* or *at* a discrete level of scale but materialize as scales transact. Coincident with these trends and our work, 2021 saw publication of conscientiously cross-disciplinary (Horton) and nondisciplinary (DiCaglio) theories of scale. Both situate scale as transformative across ontological, ethical, and political terrains. In his introduction to the topic, Horton (2021) calls attention to the fact that "While often conflated with size, scale has many facets and is difficult to define" (4), and DiCaglio (2021) asserts relevance of definitional difficulties that persist despite the reality that "we are all familiar with scale" (4). Because scale as a term is both ubiquitous and ambiguous, we begin by making this explicit note: our use of the term scale in this article invokes the word's resonance as an indicator of "the size, scope, or level of complexity associated with a defined area or phenomena, and as a concept that allows us to articulat[e] boundaries by which we can identify, measure, quantify, or otherwise delineate meaning and recognize actions and effects" (Banazek and Sharp-Hoskins 2022). We find this definition useful for articulating analytic boundaries and attending to rhetorical actions and effects within those boundaries. It allows us to manage complexity by making explicit decisions about how–and to what–we pay analytic attention, covering some of the same ground as DiCaglio's (2021) assertion, "Scale is not the level of observation, but a tool for establishing a reference point for domains of experience and interaction" (4). Beyond merely paying attention to scale defined in these ways, we argue that a specific focus on *transacting* scales encourages scholars to better account for how phenomena interanimate—how scales not only *interact* (have effects on each other) but *transact*, participating in mutual (though rarely equal) exchanges.

In the sections that follow, we review literature that identifies relationships between ethics and scale in TPC before substantiating the special importance of transacting scales and introducing our case studies. Building on TPC scholarship that centers relationships between ethics and scalar dynamics, we show

how ethics are better accounted for when we disrupt their equation with human intentions or simple causality and prioritize instead their emergence. We also call attention to metamorphoses that occur at scalar boundaries, especially those that result in phenomenal erasures and eruptions.

Systems Rhetoric and the Complexity of Ethical Action

In the twenty-first century, scholars and practitioners of TPC agree that ethics is fundamental to our research and practices (in the discipline and profession), but also that "Similar to the manner in which scholars pushed for the integration of ethics into technical communication research and pedagogy . . . that resulted in ethics becoming commonplace in TPC studies and instruction, scholars must now encourage a reconceptualization of the field to incorporate contexts of social justice and human rights" (Jones 2016, 344). And indeed, Jones, Moore, and Walton (2016) propose that the field must move from "mere ethics, which often exist in an individual's character or behavior" to "a social justice stance, which tends to be more collective and action-oriented" (211). Accordingly, and increasingly, the field contextualizes ethics in relation to local and cultural values, advocating for users to explicitly "amplify the agency of oppressed people" (Jones and Walton 2018, 242; see also Sun 2006; Agboka 2013; Ross 2017). That is, rather than dismiss ethical imperatives for TPC, the field's best thinkers teach us to contend with diverse, diffuse logics and values; they generate possibilities for these imperatives when they prioritize cultural localization, participatory design, and accessibility. They acknowledge—and push us to acknowledge—ethics as always rhetorical and cultural rather than universal (see, for example, Haas and Eble 2018, Walton and Agboka 2021), and that our sense of ethics must not be disarticulated from an actionable commitment to social justice (Jones 2016, Walton 2016, Walton and

Agboka 2021). Using related perspectives, we can see how discursive ethical mandates work across transacting scales. "Do no harm," for example—which circulates widely and constitutively in and adjacent to the medical field—implies different professional actions in different contexts. Bodily injury might be the most obvious referent of this mandate, but scalar thinking demands further attention to harm as psychological, emotional, and/or economic. While harm to individuals may be this epithet's most common referent and thus the easiest effect to conceive (and conceive avoiding), scalar thinking—especially as a mode of social justice work—reminds us that rippling cultural consequences, including harms to communities, also deserve attention. In paying keener attention to contexts, harm ceases to be binary and easily mitigated.

Such acknowledgements require ethics in TPC to be considered as richly embedded and entangled within, rather than isolated from, discursive and material systems. In the words of Scott, Longo, and Wills (2006), we must account "for the broader web of conditions, relations, and power dynamics of which technical communication is a part," and thus, "we should evaluate the ethics of [technical communication's] functions and effects, asking such questions as, 'Whose values does technical communication privilege?' 'Who is included and who is excluded by these practices and how?' 'Who benefits and who loses?' and 'How are these practices beneficial and/or harmful?'" (14).

To theories and projects that reject a priori ethical mandates in favor of highlighting the embodied and lived consequences of TPC, then, in this article we articulate a methodology for considering how ethics don't merely *exist* but *emerge* and *matter* within discursive and material systems. Because systems are often infinitely complex, we draw on the concept of scale—with emphasis on transacting scales—to manage that complexity: leveraging boundaries that define and animate levels of scale to

highlight otherwise overlooked or elided phenomena. Here we explicitly follow Jung's (2014) theoretization of a systems rhetoric that "conceptualiz[es] explanations as systems constituted by the descriptions that sustain them." As she further explains, and key to our project, while "description at only one level of scale is insufficient," description of scalar dynamics is a necessary starting point for understanding the function of systems. To understand how ethics emerge, take shape, and create effects, then, we describe the different scales at work in producing them, paying particular attention to how their *transactions* create and limit possibilities for specific bodies.

We understand this approach in relation to several conversations in TPC theory, practice, and pedagogy. For instance, our descriptions of scalar dynamics, transactions, and ethics seek to participate in ongoing conversations about how the field of TPC needs to account for interfaces between global networks and local networks (see, for example, Agboka 2013, Jones 2016, Moore and Richards 2018). As Haas and Eble (2018) point out, "we have a complicated relationship with globalization; thus, we have an obligation to critically assess that complexity" (4). To do so, and in service to our "responsibility to advocate for equity in local and global networks," they explain, "technical communicators must be able to ascertain how these networks are constructed, by whom, towards what ends—as well as the stakeholders, power dynamics, distributed agency (distributed by whom/what; who/what benefits, is underserved, and disenfranchised within the network; in what ways), and the direction(s) of the material and information flows and within the network(s)" (4). By describing the multiple scales across which TPC ethics emerge, we offer one way to "ascertain these networks," creating robust accounts of their inequitable effects and opening space to imagine new relations.

Articulating *Kinds* of Scalar Transactions

Human bodies, built and ecological environments, social and discursive communities, and institutions all function as what scholars in the West might refer to as complex systems—a rejoinder to modernist and positivist science. Yet, as Tewa scholar Cajete (2004) explains, the "modern orientation frequently disconnects Western science from the lived and experiences world of nature," but the complexity and connections between people, nature, place, and language, where "humans and the natural world interpenetrate one another at multiple levels," is central to what he proposes as a "Philosophy of Native Science" (46). Different kinds of scalar transactions enable and threaten each system—their maintenance, self-organization, and very survival; or, in the words of Cajete, "The survival of any kind of self-organizing system depends upon its ability to keep itself open to the flow of energy and matter through it" (48). Here we take cues from systems scholars to describe some sample scalar dynamics—and how they maintain and threaten systems. We suggest they are worth naming because of how they rhetorically construct ethical possibilities and distribute harm in diffuse, complex ways; we urge readers to observe how these often co-occur (and coincide with additional phenomena).

One type of scalar transaction useful for conceptualizing the importance of systems rhetoric to TPC ethics is the kind of transaction Horton (2021) calls "scalar deferral," which we refer to as **temporal deferral of consequences**. This concept acknowledges how "contemporary scalar politics [invest] energy into singularities (individual heroes and villains, monuments, memes) and thus away from systems, while displacing undesirable consequences to nonvisible scales: the vast ocean, the atmosphere, the nano realm, the far future-comfortingly distant points on the scalar spectrum" (9). Scalar deferrals are defined by how observable consequences always return eventually, and, in so doing, prompt eruptions of

seemingly sudden events of inclusion and exclusion, benefit and loss. Attention to temporal deferral insists on the coincidence of complex ethical causes that might otherwise recede from rhetorical view. The affordances of this type of attention are dramatized in the work of Dolmage (2018), for example, who disrupts narratives of immigration that cathect onto racialized bodies by looking closely at histories of eugenic practices that have long shaped immigration in the US and Canada.

Scalar displacements may also operate *without* such extreme distortions of the temporal, instead relying on *geographic displacement of consequences.* For instance, when global supply chains allow corporations (and governments) to "hide" inhumane labor practices or devastating environmental impacts far from Western markets, they are not working to make impacts "invisible for an indeterminate amount of time" (as above). Rather, their effects on human bodies are felt in real time—hypermaterialized in specific geographic locations. A recent TPC emphasis on cultural localization helps us pursue related displacements by engaging TPC where it takes place. For example, technical products created and documented in the Global North may elide material circumstances, needs, and concerns of users elsewhere, as Acharya (2019) illustrates through study of biotechnical equipment usability in Nepal.

Accounting for many complex systems at once provides its own set of challenges, often resulting in *contracted assessments of consequences*. Accounting well for one system can be so complex—and require such specialized expertise—that it supplants other considerations, causing cascading effects. This dynamic and its importance to decision-making in TPC is illustrated by returning to the example of "do no harm" as an ethico-functional mandate. As medical practitioners seek accounts adequate to the complex human body, they may elide consideration of equally complex—and transacting—social and material systems, purposefully leaving

such considerations to experts in other fields. But medical practitioners who consider harm only in terms of pain (complex as it is) may miss complicating environmental factors that contextualize how well a patient can follow post-operative instructions to manage pain. This is not only a matter of practitioners using a limited scope (scale) to consider ethical obligations. Even if they somehow managed to consider all of a patient's physical environments, they might miss how other scales co-construct conditions of possibility for avoiding harm: gendered expectations that undermine asking for help, care obligations that require unrecommended activities, conditions of employment that interrupt pharmaceutical regimens, and so forth. As this example demonstrates, the ethical inducement "do no harm" cannot be conceptualized fully by imagining specific bodies in particular spaces (the hospital, the home, the workplace) but instead requires attention to how cultural, familial, material, and economic scales transact and materialize possibilities for bodies.

Although ethics in TPC are not always as codified or commonplace as the medical mandate "do no harm," they likewise emerge in relation to complex and transacting scales and invite attention accordingly. The ethical argument that technical documentation should be usable and useful, for example, hopefully invites TPC practitioners to center the embodied capacities, needs, and goals of users (see, for example, Mirel 2013). At an individual level of scale, such considerations are, no doubt, ethical. But attention to transacting scales can collate this individual scale with others, exposing how "usable" and "useful" function as geopolitical and cultural terms. Similarly, critiques of efficiency and satisfaction direct the field's attention to how commonplaces about user goals can do unwitting harm in a rush to implementation (Frost 2016). Thus individual benefits of usable instructions for a product may not fully account for how the product is situated not just *in* cultures or *in* political moments but *as* they transact. In other words, it is *as* socio-cultural *and* individual systems transact that usability and

usefulness emerge and become ethical (or not) for individual users and in relation to prevailing policies, politics, and logics. As Takeshito (2012) demonstrates in her analysis of *The Global Biopolitics of the IUD*, for example, usability and usefulness of intrauterine devices (IUD) for US women as voluntary birth control *defers* a history of eugenics (through which the technology emerged), *displacing* harm onto women from the Global South (for trial and testing) yet assessing the usability and benefit of birth control in contracted terms (of individual women's bodies).

As TPC scholars, practitioners, and pedagogues take seriously ethical impacts of their concepts and practices, they can benefit from more explicit attention to scalar transactions. That is, from seeking and creating accounts that focus attention on how ethics *emerge*—deferring, displacing, and contracting consequences as they come to matter in specific ways. To that end, in the sections that follow, we offer micro case studies that surface relationships between scalar transactions and ethics. As distinct cases, our studies center different experiences and relationships to TPC. As a collection, it dramatizes the need for accounts that emerge from different perspectives and thus capture different scalar dynamics. Rather than choosing tightly related cases, looking to seemingly disparate occurrences exposes how TPC is always functioning through transacting scales and their consequences, thus enabling more robust renderings of how ethics function in TPC.

Micro Cases # 1 and #2: International Students in TPC Programs

Our first two cases expose how the scales at which TPC *programs* are most often articulated—disciplinary, institutional, and pedagogical—transact with historical, transnational, and geopolitical scales to circumscribe possibilities for programs and their constituents. More specifically, by centering experiences of students who require travel visas and I-20 forms to participate in

US graduate programs in TPC, we show how travel documents and processes temporally defer complex histories by stereotyping and scapegoating (Kapadia 2019) particular individuals and groups. We further address how these documents render identities visible and inscribe them legally—processes with significant affective consequences for students.

Rabiatu's Story

After acceptance to an MA program in Rhetoric and Professional Communication, and in anticipation of moving to the US from Ghana to begin that program, I began to fill out a US visa application, which had several pages of questions. Each page was named based on the nature of its content, from the "Sign in Page," "Application Information Page," "Travel Information Page," through to the "Sign and Submit" and "Confirmation" pages. The electronic interface was set up to allow you to save your progress at your convenience. Filling out the first 12 or so pages was simple, and I made quick progress until I encountered a question on the "Additional Work/Education/Training Information Page," and everything went downhill from there.

The question was the fifth question on said page right after the question, "Have you belonged to, contributed to, or worked for any professional, social, or charitable organization?" Imagine following this quite positive question with "Have you ever been a member of the Taliban?" This question evoked my past experience of being called a terrorist, or even sometimes accused of being in the Taliban, because of my hijab. I thought I did not read it right or there was a mistake until I continued on. The questions that followed were to determine whether I had had training in explosives and other weapons of mass destruction. At this point, I thought I was filling out forms for a different purpose than a Study Visa. I felt like I was being questioned because I was a suspect of crimes against humanity. I could not help imagining those who were actual victims of war crimes and how traumatic it must be for them to be confronted with the words in the question.

The application only got uglier because the next section, named "Security and Background Page," included more questions that felt like accusations. Whereas I felt I could answer the first parts, because they were questions pertaining to physical and mental health, parts 2 to 5 shifted back to questions that ranged from blunt to disturbing. For instance, the third question in part 2 was: "Are you coming to the United States to engage in prostitution or unlawful commercialized vice or have you been engaged in prostitution or procuring prostitutes within the past 10 years?" I was surprised to find this question and I could not help laughing about it. The questions that then followed had a relatively similar effect on me. Such laughing was not the product of amusement; instead, it allowed me to create temporary affective distance from the insinuations of the application by focusing on its absurdity. Surely an applicant wouldn't choose this platform to confess. But also, what of the complicated circumstances that might lead someone to seek a visa? The phrasing of the form compressed all prostitution into an individual choice made by a willing actor, which cannot account for the difficulties and contexts that might lead someone to choose prostitution.

The rest of the form was back to normal, as in it was based on questions I expected to find in filling out forms: "Where will you be staying in the United States?" "What is the duration of your stay in the United States?"— questions relating to me as an individual and not based on stereotypes of what people like me ("scary aliens"), its users, receivers, or consumers are capable of perpetrating. Maybe if I was considered enough to be warned about the disturbing nature of some of the questions or even given reasons for such disturbing questions, I would not have had such a traumatic experience with the form. But I also wondered, is the document designed deliberately to impose such traumatic feelings on the bodies that interact with it?

As Rabiatu's experience demonstrates, not only are questions in the student visa application stunning in their bluntness, but they openly engage stereotypes about those who seek entry to the US (see also Dingo 2012). Indeed, while the purpose of a student visa is

embedded in the *raison d'etre* of the document, its rhetorics nonetheless question the legitimacy of each applicant's case, rendering each suspicious by deferring long histories of transnational relations and displacing them onto individual student bodies.

The relevance of travel documents to bodies that carry them is typically framed vis-à-vis individual time-bound experiences. We are trained rhetorically to believe specific subjects encounter and use specific documents, resulting in specific consequences leveraged onto those bodies. Discussions of documents' ethical force are thus limited to material and potential impacts on individuals. However, as Rabiatu's experience helps demonstrate, examining such documents reveals transactions across varied temporal and geographic scales—the "legitimacy" of documentary forms is constituted through reference to historical relations between the US and other nations and groups, including ideologies and assumptions that shape such relations. Indeed, through such documents individual (and self-identified) "terrorists" are affirmed as villains in a more complex geopolitical economy of "terrorism," rhetorically deferring (or occluding) histories of occupation, oppression, and Orientalism. Put another way, circulation of these documents (as scalar phenomena) helps reify and "legitimate" exclusionary logics embedded in questions like those Rabiatu encountered, and existence of such questions shapes what futures are understood (materially and intellectually) as possible and desirable. Shome's (1996) work is instructive to understanding how this deferral happens, explaining "Whereas in the past, imperialism is more about subjugating the 'native' by colonizing her/him territorially, now imperialism is more about subjugating the 'native' by colonizing her or him discursively" (42). Rabiatu's experience, though articulated at an individual level of scale, reveals how legal documents and procedures participate discursively as territories (the US, in this case) exercise dominion and produce ethical boundaries; her conditional entry to study

TPC in the US requires her to accept and submit to a racial hierarchy with white bodies at the top and black ones at the bottom (Smith 2006).

Whereas travel documents are central to international students' participation in TPC as a field (a particular level of scale), and thus might be classed, in the words of Frost (2016), as "highly visible rhetorics . . . that shape our ideologies," unfortunately, "such technical artifacts are not often considered to be sites of culture making" (13). Frost draws attention to how we overlook cultural implication of legal, governmental, and other professional or technical documents, thinking them objective and therefore unbiased or ignoring them as the rote requirement of international students, carefully excised from our disciplinary or programmatic considerations of ethics. In the same vein, Haas (2012) reminds us that though "We often like to believe that technical communication, like legal writing, is written objectively and is void of culture, thus making it more accessible. . . . [it] also has a history of ignoring the ways in which our work is saturated with white male culture—which has real effects related to privilege and oppression on the lives and work of designers, writers, editors, and audiences of technical communication" (284). To these acknowledgements of TPC as cultural making and culturally saturated, we add that technical, including legal or bureaucratic, documents deflect attention from the transacting scales co-constituting them, which, through deferral and displacement, allows consequences of fraught geopolitical relations to land on the bodies of international students and shape how they experience and engage TPC. Thus, the need to analyze these texts as loci that reveal transacting scales is urgent.

Taking seriously immediate embodied consequences of the student visa application process, as demonstrated above, begins to reveal how transacting scales shape possibilities for students in the US. But scalar deferrals and displacements that attendant student

visas are not finite or limited to *application* processes or questions. Indeed, successful application for a visa precedes *use* by students who must navigate intense and invasive questioning and biometric screening to enter the US for study and carry documentation as they travel within the US. Such material encounters—to borrow language from Al-Khateeb (2021) in her work on "Refugee Encounters"—reveal the ongoingness of transacting scales, as travel documents are presented in airports and border checkpoints not once but continuously. Moreover, a visa's influence extends to registration and other education opportunities, shaping who matriculates but also how students navigate education programs in the US.

Akram's Story

The most disturbing thing I have experienced traveling as an international student is detainment by American security patrol. In spring 2019, I went on a road trip to Chihuahua, Mexico with friends, all of us international students—from Tunisia, Ghana, and Mexico. On our way back at a security checkpoint, an officer inspected our legal documents. Being on valid visa status was apparently sufficient for my friends, but not sufficient for my re-admission. The officer requested me to get out of the car and follow her. At the beginning, she talked to me nicely. She "just" wanted to elicit enough information about the purpose of my trip to Mexico. As we were approaching a building, she asked if I carried a knife. That was shocking to me. I had never thought I would be treated as a criminal. Then we entered a small office where I had to empty my pockets. They found some Mexican coins and tissue paper. Her boss briefly looked at my passport and asked if I was an Arab and if I spoke Arabic. After that, I was temporarily released. The initial officer walked me back outside where other officers completed a full vehicle inspection. At those moments of detainment, I had the worst feeling of homesickness. While it was not the first time I got detained, what happened to me in the borderland was intense.

This is not the only time I have had a bad experience related to my documents. In Fall 2020 as the pandemic worsened, I found I could not even be fully confident in my ability to move freely and safely within the United States despite my valid visa. I was unable to get my university to respond to "non-emergency" email and apply a necessary signature on my documents. While our International Student Services Office was overworked as a result of policy conversations taking place at the national level and did their best to resolve the issue, their materially-driven inability to promptly provide a signature caused a period of waiting and uncertainty that temporarily isolated me from friends and community in cities within a few hours of my program (travel is particularly complex because we live within 100 miles of the border where immigration checkpoints exist leaving the city in all directions). This failure compounded the isolation I felt being far from my family and general isolation and uncertainty caused by the pandemic. Other international students I know have had complex emotional reactions related to restricted movement, too. For example, a friend from Libya faced dramatic uncertainty as a result of Trump's travel bans specific Libya's geopolitical and cultural histories.

Taken together, these anecdotes call attention to experiences of arbitrariness as well as isolation and dehumanization that can be triggered by technical documents associated with international student movement. In particular, they call attention to bureaucratic time—time lost to detainment, to the tedium of waiting for document processing, or when it feels necessary to put off travel home (and avoid throwing oneself into hypervisibility at a border) because unstable international politics might make re-entry impossible. Such bureaucratic time unfolds on a scale both inconsistent with and quite distinct from the one at which everyday time unfolds for individuals, a mismatch with material lived consequences.

Experiences of arbitrariness create friction for bodies in part because they contrast the rigid formal language the U.S.

government uses to describe visas and other travel documents. According to US Citizenship and Immigration Services (USCIS), an F-1 visa is issued to those seeking to enter the U.S. as a student at an accredited educational institution for a defined period of time. It requires proof of acceptance and an intensive screening process (as described in the case above). Student visas are typically valid for 5 years. However, the expiration date is not the only legal factor at work. To maintain legality of a visa, international students must be enrolled full-time, *not* take a fully online course of study, not work off-campus, be in good academic standing, and possess the Form I-20 (Certificate of Eligibility for Nonimmigrant Student Status for Academic and Language Students) from their designated U.S schools. The I-20 lists institution, program of study, dates of eligibility, and other supporting information satisfying visa requirements. This multi-purpose document directly impacts student travel. The U.S. Department of Homeland Security requires international students to have an authorized signature valid for 6 months on their I-20 forms from a school official for international travel, but a signature can also be needed locally at border checkpoints, of special concern for students near the U.S. border (as noted in Akram's story).

These technical documents (and the legal requirement they rest on) reveal yet more scalar transactions at work in materializing TPC ethics. This was called into particular relief in summer 2020 when the Trump administration sought to bar international students—including those on valid visas—from staying in country if their schools went fully online. This announcement came as schools nationwide were grappling with pandemic action plans— many having already announced online fall terms—causing program directors to scramble for options and major anxiety for students. This policy act resonates, again, with scalar transactions and their (un)ethical consequences, foregrounding how documented technicalities determine which students can *enter* the US for education but also who can *remain* or *reenter*. While a

temporary suspension of the in-person learning requirement was issued in 2020, this requirement has since been reinstated. At the time of our writing, the Omicron variant of COVID-19 is surging, prompting returns to online instruction and reinscribing 2020's troubles. Political arguments and unrest about vaccine requirements, community health, and personal freedoms are again being displaced onto international students. In being prevented from choosing online options for study, they are asymmetrically exposed to the virus. Of note, students from different regions (as suggested in Akram's story and addressed below) and with different economic, embodied, and social means and literacies experience visa restrictions in uneven ways. This is particularly true as COVID-19 exposure carries increased risk for disabled students and multigenerational households—and because of distinct challenges associated with being far from family and support networks if one does become sick.

While the pandemic undoubtedly exacerbates vulnerabilities for international students by disarticulating enrollment requirements from health risks and consequences, the transacting scales through which student visas regulate student possibilities and livability have both longer histories and additional consequences. For example, on March 6, 2017, former President Trump signed a controversial executive order titled "Protecting the Nation from Foreign Terrorist Entry into the United States," commonly referred to as the "Muslim Ban" or "Trump Travel Ban." The order blocked refugees and travelers from seven predominantly Muslim countries: Iran, Iraq, Libya, Somalia, Sudan, Syria, and Yemen. One justification given in the order was "in order to protect Americans, the United States must ensure that those admitted to this country do not bear hostile attitudes toward it and its founding principles" (U.S. President, 2017). This ban not only prevented new students from matriculating at US institutions but banned continuing students, like Akram's Libyan friend, from traveling to their homeplaces (during breaks, for family emergencies, and so forth).

Noting that US reentry—not just initial entry—is a major concern for international students offers particular insight into how complex addressing scalar problems is. Watching political tides change causes uncertainty, even if tides have recently turned in your favor. Shifting policy—while often an important start—does not erase or compensate for ethical consequences of "bad" edicts. Rather, all policy changes participate in how scalar transactions create and mediate complex consequences. For instance, President Biden rescinded the "Muslim Ban" on January 20, 2021, proclaiming "the United States was built on a foundation of religious freedom and tolerance, a principle enshrined in the United States Constitution," yet this reversal still contributes to rhetorical landscapes where travel policies are subject to presidential fiat and American exceptionalism structures policies' validity.

In short, government policies—and technical documents and processes that enshrine them—not only regulate arrival of students to the US but manage how they exist while in programs: where and when they can travel or visit home and how they are made to feel as they do so. When students are banned from travel or when the process is so demoralizing, traumatizing, or unpredictable as to dissuade students from applying for or using visas, then their perspectives, knowledges, and literacies are also denied entry into US institutions and programs in which they would or could enroll are intellectually impoverished. This is one way that transnational relationships not only impact individual students but also both programs that successfully support international students and those that do not enroll or cannot retain them.

Micro Case #3: TPC Pedagogy

The previous cases illustrate how scalar deferral and displacement are all *too* immediate for international students in TPC programs. In contrast, but not unrelatedly, TPC pedagogues often face challenges in discussing ethical entanglements in introductory TPC courses at a variety of institutions and with a variety of students. While this is perhaps most obvious in the classroom performances for students who feel entitled to question their teachers generally or for those who understand their relationship to TPC classes as customers (who are always right), even students who experience the insidious harm of TPC documents and processes (students who have experience navigating health bureaucracies, immigration or naturalization processes, or the FAFSA process for funding their education) may resist imagining TPC as more complex than the production of clear, concise documents. This is an effect, in part, of how readily individual experiences are disarticulated from larger cultural phenomena, especially how public discourses frame TPC as a discrete monetizable skill (deferring complex dynamics and protecting imperialist, capitalist interests).

To facilitate students' imaginings of TPC in its contexts of use and consequence, in TPC classrooms, case studies (or scenarios) are often used to prepare students for ethical complexities faced in professional environments (Schneider 2005, Haas 2012). As Zuidema and Bush (2011) state: "To be truly curious about ethics, students need to face problems that are not easily solved; they need to be puzzled—to face what they might call ethical dilemmas. Good cases pose problems similar to those that professionals face in the 'real world'" (96). As demonstrated previously, the "real world" invokes transacting phenomena marking ethics-at-scale. Within classrooms, however, cases also participate in production of ethics, shaping how students—and teachers—conceptualize principles and their consequences. Considering case studies' potential ethical

impacts, especially as mobilized in introducing ethical concerns in TPC classrooms, it remains vital to interrogate them as sites of ethics-in-action, especially in ways that speak to the field's growing attentions to practices that are less centered on Western-originating conceptions of individualism. Below, then, we highlight how scalar, ethical complexities materialize through use of a particular case study. By accounting for transacting scales, we show pedagogues can better teach about and contribute to ethical actions in TPC.

Kavita's Story

In Fall 2019 for my face-to-face, undergraduate, and introductory TPC course at a research-intensive university in the American Southwest, I introduced the memo, Google's Ideological Echo Chamber (2017) ("The Google Memo"), written by then-Google-engineer James Damore, to serve as a case study in the complexities of professional ethics. The Google Memo circulated on an internal mailing list in July 2017 before being published by website Gizmodo the following month (Conger 2017) and thereafter receiving considerable media coverage and social media attention. Inspired by a request for feedback on a Google diversity program, Damore referred to Google's organizational culture as "an ideological echo chamber" (2). Admitting that discrimination exists, he nonetheless argued that situating all "disparities in representation" within a framework of oppression was ultimately authoritarian and embodied reverse discrimination (2). He further attributed female and male disparities to biological differences, offering suggestions for increasing female representation in tech workplaces by accounting for those differences as well as for combatting organizational reverse discrimination. In addition to prompting his firing, Damore's memo received an official response from Google's then Vice President of Diversity, Integrity, and Governance, Danielle Brown (Emerson and Matsakis 2017), which articulated company policies related to diversity, equity, and inclusion.

Asking students to analyze and respond to this memo, I created an assignment over several class periods that continued class efforts to frame TPC transculturally across individual, cultural, organizational, and profession-based scales in ways that complicated function-centered purposes as well as ideas of nation (Ding and Savage 2013). In groups, students were asked to:

- *Read and summarize the memo*
- *Analyze how the memo did/didn't follow genre conventions*
- *Respond via email or memo as either a colleague of equal position, a direct supervisor, or a human resource representative*
- *Read and summarize Danielle Brown's response (Emerson and Matsakis 2017)*
- *Complete a written reflection explaining why the group took the stances in its response, and whether their stances changed based upon reading Brown's response*
- *Engage in class discussions about the memo's contents as well as background information on diversity, equity, and inclusion initiatives' aims to amplify traditionally-marginalized communities in fostering inclusive organizational policies and practices (Bastian 2019)*

In their initial responses to Damore, most groups stated they would endeavor to address his concerns, materializing the ethical mandate that "No Employee Should be Discriminated Against." This mandate emerged not only as a summary of Damore's position, but a commonplace in class discussion. In their follow-up reflections, contextualized by the requirement to read about DEI policies and practices, all groups maintained their original stances. Groups that supported Damore explained that they opposed Brown's response and DEI justifications for it, because, again, no employee should be discriminated against.

Following this example–temporarily bounded by a case study-focused, classroom activity, ostensibly operating at one level of scale–we can trace how the mandate "No Employee Should Be Discriminated Against" materializes as commonplace not only in relation to Damore's memo but among material-discursive

relations that expose complex and transacting scales: classroom and pedagogical norms that prioritize consensus; a university-required textbook with a specific bounded chapter on ethics distinct from its chapters on cultural and functional considerations of TPC, ethics oriented from a culturally Western insistence on individual identity and personal expression (such as enactments of scalar deferral in pop culture positionings of Damore as hero or villain), and geographic and institutional acceptance of multiculturalism as racial justice, to name a few.

Emergent commonplaces contract complexity, exposing how that process in relation to this memo—and the case study assignment Kavita built around it—foregrounds the always transacting scales at work in materializing ethics and their consequences. Another place to begin surfacing related scalar dynamics is with Kavita, herself, as the instructor, whose embodied positionalities as a woman of color and the daughter of immigrants engender differential shifting relations of marginalization and privilege. The significance of her positionality and embodiment is not static, of course, but emerges in relation to various social movements in the U.S. and India as well as histories and patterns of immigration, transnational relations, labor exigences, policies, and practices, as well as ethnocentric political tides. Introducing the various scales through which her own positionalities emerge complicates the argument "No Employee Should Be Discriminated Against" by drawing attention to how bodies come to matter in different ways in discourses of TPC. For example, workers from India and of Indian origin have complicated relations to the tech boom in the US, alternately invoked as needed labor and overall exemplar of the Model Minority myth, and also as scapegoats for underemployment of white job-seekers. Thus her body is marked as both privileged and marginalized depending on a shifting "web of conditions" (Scott, Longo, and Wills 2006, 14). Therefore, "No Employee Should Be Discriminated Against" is further exposed as a locus for transacting scales when we pay attention to *whose* bodies

are referenced in public and classroom discussions of discrimination at Google.

Transacting scales can likewise be brought into focus with attention to terms of employment for general education TPC courses. In this context, Kavita's experience and expertise, alongside the professional and disciplinary scales from which they emerge, transacted with required materials (curriculum and textbook) that supplanted complex transcultural histories of TPC with a digestible version of ethics-as-individual-decision-making and, crucially, set ethics to appear distinct from other functional practices necessary in TPC workplaces. While the *Google Memo*-as-case-study materializes in the classroom, in part, to help students prepare for messy "real-world" moments, the required textbook articulates the "real world" in simplified contexts that inhibit ethical problem solving. Disciplined by the textbook to treat readability of the memo as the substance of professionalism and skill, students were hailed to champion it as a functional workplace document and resist changing their positions even in the face of new ethical considerations.

While using the concept of transacting scales can help foreground how "No Employee Should Be Discriminated Against" materializes in complex relation to other ethical projects—DEI policies and programs, justifications for such programs, affirmative action policies, ongoing efforts to amplify women in tech, #MeToo, and others—the timescale of a semester also shapes and limits possibilities for how a case study can facilitate a robust ethical imagination of TPC. Specifically, it limits the amount of supporting materials that can be analyzed. In Fall 2019, for example, Kavita combined introductory and contextualizing material offered via PowerPoint (and partially drawn from secondary sources) with the textbook, the memo, and Google's response as primary texts. Focused on these shared texts, student discussions, emails, memos, and reflections all centered the injunction "No Employee Should

Be Discriminated Against" as an ethical argument/mandate/principle/mantra stripped of its potential to account for differential matterings among historically-marginalized bodies in ways that participate in their erasure or movements to combat that erasure. Utilized in relation to other forms and texts (even those used earlier in class), they might have responded differently. It was in response to the timescales of institution and assignment, then, that ethics took the form of a single, sayable mandate disarticulated from other concepts, issues, and scales that contribute to TPC.

Of course, such a representation of ethics-at-scale, in which students prioritize identifying and naming an ethical position, likewise contravenes students' abilities to draw on individual lived experiences which might encourage them to introduce personal and cultural principles operating at other scales. It also affirms students' pedagogical histories that privilege credibility of primary, written, published source texts (e.g. Angeli, Valanides and Papastephanou 2011)—like the memo and the textbook, pre-positioned as reliable by virtue of format. Recognizing these transacting cultural, disciplinary, professional, pedagogical, and time-based scales continues to suggest possibilities for crafting alternate criteria for this assignment.

Conclusion

When we view the case studies above *in relation* to each other, we get a fuller picture of the affordances of a methodology that pays attention to transacting scales with the goal of more fully understanding ethics-in-action in TPC. Some connections between cases are not difficult to draw: those with student visas may be instructors in TPC classrooms, and/or students in TPC classrooms may go on to author government forms and processes that govern movement across borders. The ethical mandate "No Employee Should Be Discriminated Against" is likely commonplace at border

checkpoints, albeit with care taken to ensure "users" of checkpoints remain categorically distinct from "employees." Blunt questions about terrorist activities nominally follow best practices for clear direct communication—as they are taught in many classrooms. Moreover, relationships between our cases go beyond not only what we trace but beyond what *is* traceable. Classrooms and visa processes are not discrete spaces or systems but emerge in relation to shared—which is to say, deferred, displaced, and contracted—histories, discourses, practices, and processes. Accordingly, we suggest the most unsettling aspects of our field are always reverberating with those that are seemingly benign, and such connections ought to bear further scrutiny.

We hope readers have drawn conclusions and identified connections that exceed what we have made explicit. In acknowledging the many threads we could have materialized but did not, we also point toward some ways we hope our work and methods may be useful to others. It is not just that we did not have space to materialize all threads but rather that each reader necessarily brings positionalities, experiences, and expertises different from ours—and so will be capable of identifying ethical aspects of this work the five of us are incapable of encountering. For us, arguments for work with complexity are inherently arguments for coalition building, collaboration, conflict with, and complex revisions of not only TPC texts but also the worldviews that undergird our work.

In our introduction, we argued that analytic attention to scalar dynamics—especially transactions between and across scales—can help us *manage* complexity. We further include the belief that this can help us become better at *imagining* complexity. We are particularly interested in how scale-centric accounts that disrupt taken-for-granted histories and "best" practices help us *propagate* complexity in relation to arguments we encounter in our classrooms, professional spaces, and everyday lives—and in how

that might lead us to invent or imagine new ways of disrupting problematic norms. Adoption of any analytic implies the necessity of drawing boundaries. We hope in setting goals that include managing, imagining, and propagating complexity that part of what we have done is foreground the degree to which all such boundary drawing must be understood as temporary (and relatively arbitrary). If we are always interrogating and redrawing boundaries, catching many glimpses of how complex systems operate and impact individuals, this also helps us imagine new sites at which we might meaningfully intervene in the world around us. In short, we are afforded different perspectives on how ethics materialize and matter when we imagine them not as static but in terms of stasis–where the appearance of stability always covers over ongoing transactions.

References

Agboka, Godwin Y. 2013. "Participatory Localization: A Social Justice Approach to Navigating Unenfranchised/Disenfranchised Cultural Sites." *Technical Communication Quarterly* 22(1): 28-49.

Al-Khateeb, Mais T. 2020. "Toward a Rhetorical Account of Refugee Encounters: Biometric Screening Technologies and Failed Promises of Mobility." *Rhetoric Society Quarterly* 51(1): 15-26.

Angeli, Charoula, Nicos Valanides, and Marianna Papastephanou. 2011. "The Role of the Authority of the Text on Critical Thinking." *Interchange* 42(3): 307-328.

Archarya, Keshab Raj. 2019. "Usability for Social Justice: Exploring the Implementation of Localization Usability in Global North Technology in the Context of a Global South's Country." *Journal of Technical Writing and Communication* 49(1): 6-32.

Banazek, Kerry, and Kellie Sharp-Hoskins. 2022. "Scalar Violence in Composition." In *Violence in Composition*, edited by Kristie Fleckenstein and Scott Gage. Boulder: University of Colorado Press.

Bastian, Rebekah. 2019. "Corporate Diversity Initiatives are Good for Everyone--Including You." *Forbes*. February 25, 2019. https://www.forbes.com/sites/rebekahbastian/2019/02/25/corporate-dei-initiatives-are-good-for-everyone-including-you/?sh=f3665a766c33.

Cajete, Gregory. 2004. "Philosophy of Native Science." In *American Indian Thought: Philosophical Essays*, edited by Anne Waters, 45-57. Malden, MA: Blackwell.

Conger, Kate. 2017. "Exclusive: Here's the Full 10-Page Anti-diversity Screed Circulating Internally at Google [Updated]." *Gizmodo*. August 5, 2017. https://gizmodo.com/exclusive-heres-the-full-10-page-anti-diversity-screed-1797564320.

DiCaglio, Joshua. 2021. *Scale Theory: Nondisciplinary Inquiry*. Minneapolis: University of Minnesota Press.

Ding, Huiling, and Gerald Savage. 2013. "Guest Editors' Introduction: New Directions in Intercultural Professional Communication." *Technical Communication Quarterly* 22(1): 1-9.

Dingo, Rebecca. 2012. *Networking Arguments: Rhetoric, Transnational Feminism, and Public Policy Writing*. Pittsburgh, PA: University of Pittsburgh Press.

Dolmage, Jay T. 2018. *Disabled Upon Arrival: Eugenics, Immigration, and the Construction of Race and Disability*. Columbus: Ohio State University Press.

Emerson, Sarah, and Matsakis, Louise. 2017. "Google on Anti-diversity Manifesto: Employees Must 'Feel Safe Sharing Their Opinions.'" *VICE*. August 5, 2017. https://www.vice.com/amp/en/article/vbv54d/google-on-anti-diversity-manifesto-employees-must-feel-safe-sharing-their-opinions?utm_medium=referral&utm_campaign=amp&utm_source=motherboard.vice.com-RelayMediaAMP.

Frost, Erin. A. 2016. "Apparent Feminism as a Methodology for Technical Communication and Rhetoric." *Journal of Business and Technical Communication* 30(1): 3-28.

Haas, Angela M. 2012. "Race, Rhetoric, and Technology: A Case Study of Decolonial Technical Communication Theory,

Methodology, and Pedagogy." *Journal of Business and Technical Communication* 26(3): 277-310.

Haas, Angela M., and Michelle F. Eble. 2018. "Introduction: The Social Justice Turn." In *Key Theoretical Frameworks: Teaching Technical Communication in the Twenty-First Century*, edited by Angela M. Haas and Michelle F. Eble, 3-19. Logan: Utah State University Press.

Horton, Zachary. 2021. *The Cosmic Zoom: Scale, Knowledge, and Mediation*. Chicago, IL: University of Chicago Press.

Jones, Natasha N. 2016. "The Technical Communicator as Advocate: Integrating a Social Justice Approach in Technical Communication." *Journal of Technical Writing and Communication* 46(3): 342-61.

Jones, Natasha N., Kristen R. Moore, and Rebecca Walton. 2016. "Disrupting the Past to Disrupt the Future: An Antenarrative for Technical Communication." *Technical Communication Quarterly* 25(4): 211-229.

Jones, Natasha N., and Rebecca Walton. 2018. "Using Narratives to Foster Critical Thinking about Diversity and Social Justice." In *Key Theoretical Frameworks: Teaching Technical Communication in the Twenty-First Century*, edited by Angela M. Haas and Michelle F. Eble, 241-67. Logan: Utah State University Press.

Jung, Julie. 2014. "Systems Rhetoric: A Dynamic Coupling of Explanation and Description." *Enculturation* 17. http://www.enculturation.net/systems-rhetoric.

Kapadia, Ronak K. 2019. *Insurgent Aesthetics: Security and the Queer Life of the Forever War*. Durham, NC: Duke University Press.

Mirel, Barbara. 2013. "How Can Technical Communicators Evaluate the Usability of Artifacts?" In *Solving Problems in Technical Communication*, edited by Johndan Johnson-Eiola & Stuart A. Selber, 285-309. Chicago, IL: University of Chicago Press.

Moore, Kristen R., & Daniel P. Richards, eds. 2018. *Posthuman Praxis in Technical Communication*. New York: Routledge.

Ross, Derek G. 2017. "The Role of Ethics, Culture, and Artistry in Scientific Illustration." *Technical Communication Quarterly* 26(2): 145-72.

Schneider, Stephen. 2005. "Usable Pedagogies: Usability, Rhetoric, and Sociocultural Pedagogy in the Technical Writing Classroom." *Technical Communication Quarterly* 14(4): 447-467.

Scott, J. Blake, Bernadette Longo, & Katherine V. Wills. 2006. "Why Cultural Studies? Expanding Technical Communication's Critical Toolbox." In *Critical Power Tools: Technical Communication and Cultural Studies*, edited by J. Blake Scott, Bernadette Longo, and Katherine V. Wills, 1-19. Albany: State University of New York Press.

Shome, Raka. 1996. "Postcolonial Interventions in the Rhetorical Canon: An Other View." *Communication Theory* 6(1): 40-59.

Smith, Andrea. 2006. "Heteropatriarchy and the Three Pillars of White Supremacy: Rethinking Women of Color Organizing." In *Color of Violence: The Incite! Anthology*, edited by INCITE! Women of Color Against Violence, 167-95. Durham, NC: Duke University Press.

Sun, Huatong. 2006. "The Triumph of Users: Achieving Cultural Usability Goals With User Localization." *Technical Communication Quarterly* 15(4): 457-81.

Takeshita, Chikako. 2012. *The Global Biopolitics of the IUD: How Science Constructs Contraceptive Users and Women's Bodies.* Cambridge, MA: MIT Press.

U. S. President. "Executive Order 13769 of January 27, 2017, Protecting the Nation from Foreign Terrorist Entry into the United States." *Federal Register* https://www.federalregister.gov/documents/2017/02/01/2017-02281/protecting-the-nation-from-foreign-terrorist-entry-into-the-united-states

Walton, Rebecca. 2016. "Supporting Human Dignity and Human Rights: A Call to Adopt the First Principle of Human-Centered Design." *Journal of Technical Writing and Communication* 46(4): 402-426.

Walton, Rebecaa, and Godwin Y. Agboka, eds. 2021. *Equipping Technical Communicators for Social Justice Work.* Logan: Utah State University Press.

Walwema, Josie and Felicita Arzu Carmichael. 2021. "'Are You Authorized to Work in the U.S.?' Investigating 'Inclusive' Practices in Rhetoric and Technical Communication Job Descriptions." *Technical Communication Quarterly* 30(2): 1007-22.

Zuidema, Leah A, and Jonathan Bush. 2011. "Professional Writing in the English Classroom: Good Writing–The Problem of Ethics." *The English Journal* 100(6): 95-98.

About the Authors

Kerry Banazek is an Assistant Professor in the English Department at New Mexico State University where she is currently co-directing the University Writing Center and the NEH-funded "Critical Approaches to Place" project. Her research centers around relationships between writing practices and the cultural histories associated with technologies of vision and data management.

Rabiatu Balaraba Mohammed is a graduate student at New Mexico State University. She is in her second year in the PhD Rhetoric and Professional Communication program in the English Department at her university. She has taught Rhetoric & Composition and Technical & Professional Communication and has tutored in the University's Writing Center. Her research interest areas include Surveillance of Foreign Aliens in the US, Social Justice and Activism in Technical Communication, and Movements of Rhetorical Bodies across Spaces (geographical, ideological, digital, and intellectual). She is also interested in the neo-colonial study of her home community in Ghana.

Kellie Sharp-Hoskins is an Associate Professor and Writing Program Administrator in the English Department at New Mexico State University, where she also directs programs in Rhetoric and Professional Communication. Specializing in critical rhetorics and writing studies, her scholarship considers how rhetorical possibilities materialize and matter differentially, assigning meaning and value in complex cultural economies. Her published work appears in *Rhetoric Review, Enculturation,* and *Peitho* as well as in numerous edited collections. She is the co-editor of *Kenneth Burke + The Posthuman* (Penn State UP, 2017).

Kavita Surya, Ph.D. is an Assistant Professor in the English Department at Clayton State University, where she teaches courses in Composition and Professional Writing. She earned her Ph.D. in

Rhetoric and Professional Communication from New Mexico State University, and her research focuses on exploring identities (and especially ethics) of technical and professional writing.

Akram Zouaoui recently completed his PhD in Rhetoric and Professional Communication at New Mexico State University where he taught courses in Technical and Professional Communication. His research interests include localization, translation, multilingualism, and social justice. In his dissertation, he engaged voices from Tunisia, a postcolonial African-Arab country, to understand their experiences with the usability of user manuals