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Slack, Social Justice, and Online Technical Communication Pedagogy

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ABSTRACT
This Methodologies and Approaches piece interfaces conversations about social justice pedagogies in technical and professional communication (TPC), Black TPC, and online TPC instruction to discuss the social justice affordances of Slack in online instruction. Drawing on our experiences using Slack within an online graduate course during the COVID-19 pandemic, we consider how Slack supports pedagogical community building and accessibility in online instruction before presenting a framework for assessing instructional technologies in terms of social justice.

KEYWORDS
Collaboration; instructional technologies; social justice/ethics; online instruction; disability studies/accessibility; pedagogical theory; racial studies/ethnic studies/cultural studies; digital technologies/emerging technologies

INTRODUCTION

This Methodologies and Approaches article discusses the affordances of Slack, an online collaboration platform, as a pedagogical tool for enacting social justice in the teaching of technical and professional communication (TPC) online. In TPC, Slack has notably been used for conversation, mentorship, and community building among groups such as Women in Technical Communication (#womeninTC), which was recognized with the 2015 SIGDOC Diana Award for their contributions to the field. In this paper, we discuss our use of Slack in an online graduate course titled "Theory and Research in Technical Communication" that took place during the fall 2020 semester, amidst the COVID-19 global pandemic and tumultuous 2020 U.S. presidential election – both of which disproportionately negatively affected Black, Indigenous, and People of Color (BIPOC) communities. We suggest that the widespread move to online instruction due to the pandemic has highlighted the need to more critically interrogate our online instructional practices. Although much of our teaching during the pandemic constituted emergency remote teaching in times of crisis, we believe there is value in considering what the empathy, care, and flexibility needed during these times might teach us about online pedagogy more generally. Moreover, as we reflect on the public health, environmental, and sociopolitical crises of the past decade, it is increasingly clear that crisis moments are a part of many minoritized communities' everyday realities, and these moments have affected students' learning experiences before and beyond the COVID-19 pandemic.

With this context in mind, we came to this project asking: What are the teaching and learning affordances of Slack as a pedagogical technology as reflected during our fall 2020 TPC graduate course? And what can our observations and reflections of our Slack use during a time of racial and political unrest in the middle of a global pandemic teach us about how we might assess other technologies used for teaching TPC in ways that are attuned to social justice and multiply-marginalized perspectives? To address these questions, we used an approach that combined a review of course documents and our archive of Slack conversations with reflective collaborative writing and conversation. In addition,

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inspired by Shelton's (2020) call to attend to bodies in the study of TPC (p. 18), we consider what attention to our embodied experiences as a multiracial collective of Asian, Black, and white teacher-scholars during the COVID-19 pandemic can teach us about social justice in online TPC pedagogy more generally. Ultimately, we discuss two key ways that Slack can enhance social justice outcomes: (1) by supporting pedagogical community-building and affirmation, and (2) through its affordances for accessibility. We conclude by presenting what we refer to as a WARM framework for assessing online instructional technologies, before discussing some of the limitations of Slack for online TPC instruction.

We situate this paper at the intersection of three critical exigencies: (1) scholarship arguing that the social justice turn in TPC should be brought to our pedagogical practices (Agboka, 2014; Haas & Eble, 2018; Jones, 2016; Jones & Walton, 2018; Walton, Moore, & Jones, 2019); (2) the #BlackLivesMatter movement gaining increasing traction and visibility – especially among white audiences – shifting critical attention toward anti-racist pedagogy as well as the turn to #BlackTPC in our field (Mckoy et al., 2020); and (3) the COVID-19 pandemic necessitating online writing instruction (OWI) on a macro level. We note that social justice and Black perspectives have long needed to be addressed in TPC conversations about online writing instruction, but the current racial and global health context in the U.S. in particular has thrown this need into sharp relief.

Social justice pedagogies in TPC

Several TPC scholars have urged that we bring social justice frameworks into our pedagogies (Bivens, Cole, & Heilig, 2020; Haas & Eble, 2018; Jones & Walton, 2018; Shelton, 2020). For instance, Jones and Walton (2018) expressed concern about the fact that "social justice and diversity are rarely addressed in our [TPC] scholarship of teaching," and Haas and Eble's (2018) *Key Theoretical Frameworks: Teaching Technical Communication in the Twenty-First Century* argued that although social injustice is an issue that extends beyond TPC, TPC has the potential to fight against injustice. As a result, they "position[ed] social justice inquiry and action as integral to teaching, learning, and practicing ethical technical, scientific, and professional communication in the twenty-first century" (p. 9). We build on the aforementioned calls by focusing on online TPC instruction. Our understanding of social justice is informed by Jones and Walton (2018) who explained that social justice approaches "can amplify the agency of oppressed people – those who are materially, socially, politically, and/or economically under-resourced" (p. 242). Thus, we understand social justice pedagogies as pedagogical strategies that redress inequalities, challenge white language supremacy, are attendant to minoritized students' perspectives, and promote collaboration among students and instructors as a way of challenging epistemic hierarchies and advancing the notion that knowledges are always already co-constructed.

Black technical and professional communication

Over the past year, the Conference on College Composition and Communication (CCCC) Black Technical and Professional Communication Task Force comprised of Temptaous Mckoy, Donnie Johnson Sackey, Ja'La Wourman, Kimberly Harper, Cecilia Shelton, Natasha Jones, and Constance Haywood addressed social justice issues in TPC through a focus on Black TPC. In the CCCC Black Technical and Professional Communication Position Statement with Resource Guide and on the fall 2020 online Black TPC panel, Mckoy, Sackey, Wourman, Harper, Shelton, Jones, and Haywood highlighted how Black TPC advances the cause of social justice and equity for all. Thus, we consider what attention to Black communities, who stand to lose more as a result of disparities in healthcare and other life preservers amid a global pandemic that disproportionately impacts them, can teach us about how to assess TPC instructional technologies. Proclaiming that "Technical and Professional Communication would not and cannot exist without Black people," Mckoy et al. (2020) presented an expansive approach to Black TPC that included considerations of Black user experience (UX) design; Black women entrepreneurship; Black rhetorics in health communication;

Black activism as TPC; amplification rhetorics in historically Black colleges and universities (HBCU) and Black TPC as community; Black expertise in regulatory policy and legal communication; and Black research methods, methodologies, and ethics. The Black TPC panel prompted us to consider how we might engage a larger audience regarding issues of social justice in TPC pedagogy. In addition, we recognize our decision to use Slack as an instructional technology during the pandemic as dovetailing nicely with the Afrocentric aims of Black TPC outlined in the CCCC position statement: "[reflecting] the cultural, economic, social, and political experiences of Black people across the Diaspora" (para. 2). Following that designation, then, Slack emerged for us as not just practical but also a responsible alternative to in-person instruction last semester, and one that accounted for disparities in medical care laid bare between white people and BIPOC as a result of the pandemic.

Owing our attention to Black bodies and marginal identities in the graduate TPC classroom, we take up Mckoy's articulation of amplification rhetoric and Black TPC as community; Haywood's discussion of Black TPC research methods as necessarily rooted in Black lived experiences; Shelton's theorization of techné of marginality and argument for conceptualizing ethos beyond credentials; Sackey's demonstration of the need to include Black designers and users in design decisions – including, we suggest, design of pedagogical experiences; and Harper's work on the need to acknowledge institutionalized histories of marginalization and violence against Black communities in medical rhetoric (and beyond) to analyze our use of Slack as a multiracial collective. In this essay, we hone in on Mckoy's work in particular to illustrate our points. As we do so, we acknowledge that the non-Black authors among us are differently positioned in relation to Black TPC scholarship; non-Black scholars are oftentimes not the primary audience for this work, and we are careful not to overgeneralize Black people's experiences as the same as our own. Still, we, as collaborators and coauthors of this article, have worked together to center and learn from Black perspectives, methods, and epistemologies – as well as those of others "structured into the margins," to borrow the language of Shelton (Mckoy et al., 2020). Because positionality is a critical concern for social justice in TPC, we elaborate on our positionalities in the following sections.

OWI and social justice in TPC

Finally, we build on decades of scholarship on OWI and remote learning in TPC, which have taken up concerns related to social justice even if not always explicitly labeled as such. For instance, Blythe (2001) advocated user-centered (student-focused) pedagogies in online learning, and Hewett and DePew (2015) and the CCCC Committee for Best Practices in Online Writing Instruction (2013) addressed issues related to labor conditions and compensation (Hewett, 2015) as well as inclusivity and teaching nontraditional and multilingual students in online courses (Gonzales & Baca, 2017; Gos, 2015; Miller-Cochran, 2015). Numerous works also highlight the importance of fostering a sense of community and supporting accessibility in online instruction (Blair & Hoy, 2006; Borgman & McArdle, 2019; Cargile Cook, 2007; Cargile Cook & Grant-Davie, 2013, 2017; CCCC Committee for Best Practices in Online Writing Instruction, 2013; Hewett & DePew, 2015; Hilliard & Stewart, 2019; Oswal, 2013, 2015; Oswal & Hewett, 2013). For instance, Friess and Lam (2018) examined how the use of Twitter to complete assignments in a TPC course helped students develop a sense of belonging and stimulated student retention, while also calling attention to how varied social media use might yield different outcomes in future research. Reflecting her approach to teaching a graduate seminar, Bettez (2011) argued that teachers should promote community building because doing so will encourage "students to practice interdependence" (p. 77). She argued that critical community building "might help alleviate the negative feelings and difficulties experienced by the fact that graduate work is often (1) solitary and isolating, (2) intellectually challenging, and (3) emotionally taxing" (p. 82). Teachers can promote critical community building among

students by making students partners in the process of teaching and learning; by introducing engaging reading, teaching and group activities; by combining intellect and heart, and through dynamic facilitation (p. 89–97).

Yet, although OWI scholarship has addressed social justice issues in these important ways, less often has OWI been put in direct and extended conversation with scholarship on social justice (refer to, for instance, Gonzales & Baca, 2017). We have observed that OWI scholarship seldom prioritizes the perspectives of BIPOC students and faculty, nor does it typically directly address issues of racism, anti-Blackness, and white supremacy as pertinent to OWI. Thus, we bring these three areas of scholarship together by discussing the social justice affordances of Slack, including its limitations, with a focus on pedagogical community building and accessibility for systematically minoritized students, while also attending to how our racialized subjectivities informed our experiences within the course.

Materials and Methods

In our fall 2020 online graduate course, we used Slack as our primary platform for discussion and interaction. Launched in 2013, Slack is a communication platform for working in teams that uses channel-based threads to encourage discussion among users (Slack, n.d., para. 4). Slack was originally developed as an "intra-office messaging system" that provides a "centralized place to communicate with [your] colleagues through instant messages and in chat rooms" (Gomes, 2016, p. 61). Slack's core features allow users to "upload files, get and manipulate information stored in spreadsheets or other business applications, and easily search through past conversations" (Gomes, 2016, p. 61). Recognizing the stresses of being required to use what was for most students a new technology, the professor, Sano-Franchini, introduced Slack noting that the class could collectively decide to adjust our meeting mode and meet via Zoom or asynchronously instead. In addition, Sano-Franchini explained her reasons for incorporating Slack, including:

- Slack would offer a break from video conferencing, given that students would likely be using video meetings in other courses (and the instructor herself was already experiencing "video conferencing fatigue" after a summer full of video meetings),
- folks need not worry about talking over one another,
- people would have time to think through their responses without the pressure of "awkward" silences,
- one need not be concerned about being visible on camera or whether they should have their camera on or off, and
- Slack presents a more informal environment for communication, where textspeak, lack of punctuation, spelling and grammar inconsistencies, emojis, and gifs are completely acceptable.

As for how we used the platform for this course, we attended weekly, 90-minute synchronous meetings on Slack, during which:

- Sano-Franchini shared announcements and reminders, checked in with students, and polled students about their learning experiences;
- students asked questions about assignments and expectations;
- the class discussed assigned readings and "overheard" and participated in ongoing and previous conversations; and
- we got to know one another.

The weekly Slack meetings were also, for many of us, a safe space to vent, share personal news and information, and commiserate on the many challenges encountered during a primarily online semester in a global pandemic. In addition, we used Slack asynchronously to pose questions that came up later in the week, share calls for proposals (CFP) and articles about current events, and even post photos of our Halloween costumes.

Our use of Slack took place within a larger media ecology of participatory platforms, including:

- Canvas, where students posted more formal assignments including weekly responses to readings;
- Google Docs, where we participated in more formal weekly discussions of readings extending the Canvas responses;
- Miro, an online visual collaboration platform that we used to map theories and concepts;
- Zoom, which was used for office hours with the instructor, as well as two synchronous meetings during the semester; and
- e-mail for more formal communications.

Some of us used Slack on our internet browsers, while others downloaded the application on a computer or smartphone. That being said, instructors interested in using Slack as a primary means of engagement in online courses should consider how this tool fits in relation to the larger media ecology of the course, including what technologies students are using outside of the course and their media consumption habits more generally. In addition, because we are attuned to the challenges students face when asked to juggle multiple technologies and websites simultaneously, we suggest that teachers make links to all websites and applications easily accessible in the central course hub (e.g., the Canvas homepage) and in other contexts as relevant (e.g., within assignment descriptions, in the course calendar, in reminder e-mails and Slack announcements).

Finally, we consider it important to note our own positionalities as a way of challenging the colonial notion of objectivity in research and enacting a social justice approach as articulated by Walton et al.'s (2019), p. 3Ps framework: power, privilege, positionality (p. 103). We are a multiracial group of scholars, composed of seven PhD students and one professor. Three of us are international students from India, Nigeria, and the U.K.; four of us are U.S. citizens; and one of us is a permanent U.S. resident. Those of us based in the U.S. are from Appalachia, the East and West Coasts, and Hawaii. Some of us are first-generation college graduates, and some of us have disabilities. Each of these details affects how we are positioned in relation to privilege and access to power. Many of us who were students in this course were taking at least two other online graduate courses while teaching online sections of undergraduate writing. As such, we occupied a dual positionality, both as students engaging with the course material and as instructors who were considering how this course's methods, practices, and technologies could be used in the courses that we taught ourselves. Our diverse perspectives and positionalities enable us to reflect on issues of social justice in online instruction from a standpoint that considers intersecting issues of race, gender, nationality, disability, class, and institutionalized power.

Results

Slack enhanced social justice outcomes in our online course in two key ways: (1) pedagogical community building and (2) accessibility. When we say pedagogical community building, we are talking about activities that foster a sense of belonging, trust, and mutual respect, including openness to hearing, sharing, and exchanging various viewpoints and experiences, and thus the willingness and ability to learn from all members of the classroom community. Pedagogical community building is essential for social justice, not only as it aligns with Mckoy's (Mckoy et al., 2020) articulation of Black TPC as community, but also because it encourages collaborative action and an inclusive and empowering environment through which students can rely upon and learn from one another during their academic careers and research endeavors. Moreover, pedagogical community building has

implications for social justice insofar as to build community within a pedagogical context involves including those who are often systemically excluded and enables open conversations that are conducive for productively interrogating the 3Ps per Walton et al. (2019), pp. – that is, how positionality, privilege, and power operate in specific spaces. Extending the lessons learned from the Black TPC panel and particularly Mckoy's notion of Black TPC as community, we consider it imperative that any conception of community within an online course actively account for students' diverse cultures, perspectives, and knowledges.

By accessibility, we mean efforts to make course content available and usable on a range of devices including assistive technologies, as well as to support all students' ability to engage with class materials and access pedagogical experiences, while being mindful of how current institutionalized structures often exclude, whether on the basis of disability, class and financial status, racialization, gender, and/or sexuality. Accessibility is often cited as a critical component of effective OWI (Borgman & McArdle, 2019; Hewett & DePew, 2015; Oswal, 2013, 2015). We understand accessibility as a social justice issue; to account for access is to account for how systems of power privilege particular bodies and perspectives over others, with implications for equity. To reflect on issues of access also requires that we consider how our positionalities make it more or less difficult to recognize certain access issues as a result of privilege (Walton et al., 2019).

Pedagogical community building

In our online course, we noticed early on how our synchronous Slack meetings felt like an especially affirming space for many if not all of us in the course. In the first week of the semester, the instructor invited everyone to participate in a conversation about what an effective discussion looks and feels like within the context of a graduate seminar – one that is supportive, dynamic, and intellectually stimulating. André, the first to respond, admitted, "Haven't a clue how to effectively communicate re schoolwork this way, through Slack that is, but I think we're doing alright so far." This comment speaks to the initial hesitation with which some of us approached Slack in this course. In addition, the comment highlights the value of taking time to talk about how our discussions on Slack might compare to discussions in other modes. A few days later, several other students responded, including Chloe, who added,

> Hmmm, I suppose for me it's helpful when the space is generative. Like, I want to feel comfortable in being challenged when I share my ideas. This can be really hard, so a supportive group of people is key. Also a lot of proactive affirmation!

Megan affirmed, "I am a huge believer that [. . .] our discussions are about more than our understandings of the texts but also what our understandings of each other's backgrounds bring to the class." Such comments set the stage for how we would aspire to engage with one another during our synchronous Slack meetings, and this conversation helped us identify shared goals for online engagement.

Slack allows users to type in a chat box and post in various channels (i.e., threads, or dedicated spaces in the interface meant to organize conversations). Users can also post images, gifs, and react (similar to "liking" on Facebook) to other posts using emojis. During our Slack discussions, affirmative use of emojis and gifs contributed to an environment that fostered self-confidence and highlighted our individual ideas and conceptualizations of themes and concepts. According to Kende, Zomeren, Ujhelyi, and Lantos (2016), "social affirmation use of a forum (and in particular its interactive aspect) motivate[s] individuals for collective action to achieve social change" (p. 453). Perhaps because we made these values and goals explicit, we found ourselves nothing by the second week of class how our copious use of emojis on Slack contributed to a sense of community and affirmation; Sano-Franchini observed, "I also am noticing how generous you all are with the reactions and loving how affirming it is!!" It was apparent to us that digital vernaculars (e.g., emojis, gifs, textspeak) contributed to an ease of conversation that can take more time to develop within a face-to-face context. Megan explained, "This space has created rapport building probably the fastest of all my courses this semester and it makes it

easy for me to write without trying to posture in an academic way, which usually takes me some time." Those of us who tend to be quiet or anxious in class were affirmed and validated through our conversations, which afforded each of us the ability to "speak up" and contribute to the larger group discussion at our own pace.

In addition, the emojis on Slack enable relatively diverse possibilities for representation and expression – for example, varying from "thumbs up," "hand raises," and even "middle fingers" in different skin tones. With this feature we were able to more accurately and immediately react to one another in ways that felt organic. And lest "intellectual curiosity turn defensive and minimize contributions that enter academic conversations from cultural perspectives" (Shelton, 2020, p. 19), we contend that Slack attends to matters of inclusion at a time when feeling included is a literal struggle alongside other particularly BIPOC struggles of freedom, belonging, and equity. Further, we understand Slack as a platform for sharing information, connecting and engaging with one another, and as "a practical tool with an emphasis on the efficiency and low cost of distributing information" (Kende et al., 2016).

On Slack, we found that feelings of camaraderie, kinship, and affirmation resulted in part from "posting, sharing, and commenting group relevant information" or "engaging in discussions about issues that express group membership" (Kende et al., 2016, p. 455). Moreover, within our learning community, emojis – especially the purple ♥ and black heart ♥, the Oni/monster face 👹 and facial emotion-based emojis ☺ – affirmed the ideas and contributions of others in an empowering, comedic, and personalized way. In other words, rather than flattening our responses and expressions to just a few emoji options, the range of possibilities readily available on Slack allowed us to create our own emoji-based classroom culture/personality. Through a social justice lens, interactivity and engagement through Slack discussions enabled us to express social group identities and afforded us the motivation to engage with one another as a collective invested in our communal and intellectual growth. Consequently, our graduate class not only fostered a sense of belonging within our graduate program, but it also became a means by which we highlighted critical and foundational TPC scholarship by BIPOC scholars, including but not limited to Godwin Agboka, Sweta Baniya, Huiling Ding, Isidore Dorpenyo, Laura Gonzales, Angela Haas, Natasha Jones, Fernando Sánchez, Cecilia Shelton, Josephine Walwema, Miriam Williams, and Han Yu.

Another example of community building on Slack occurred in regard to our class's participation guidelines which the professor offered at the start of the semester as open to revision. One of the guidelines, under the subheading "Contribut[ing] to a culture of respect and support," read, "Be mindful of our personal impact on the group" (Sano-Franchini, 2020). After reflecting on our Slack conversations a few weeks into the semester, the class amended this point, adding, "Remember to slow down, to wait for others to respond to your point, read their responses, then choose whether to respond back or to let things sit with us for a while." This point was in direct response to the immediacy of our Slack responses; we found it was easy to get carried away with writing from our solitary positions, instead of sitting back and allowing ourselves the space to reflect on points raised by others. This decision was not made unilaterally and without explanation, as Slack allowed us to track our conversational habits by looking at past posts. Therefore, Slack increased our ability to collaborate and work together to promote transparency in regard to pedagogical strategies and decisions. After revising the participation guideline, we began to actively state when we needed moments to sit and reflect on points. This signposting helped clarify that silences can be moments of critical reflection and aren't necessarily indicative of judgment or disengagement. Certainly, such steps could be taken within a face-to-face course; our point is that because pacing is one factor that can be very different across technologies, it may help to understand Slack as a pedagogical medium that requires interventions in conversational tempo. In addition, such interventions may be supported by Slack's archive feature, which can be used to review the pacing of conversations. As such, teachers can consider how familiar pedagogical practices might be modified for an online environment.

In our class, we found ourselves negotiating Walton et al.'s (2019), p. 3Ps (power, privilege, and positionality) framework across Canvas, Slack, and Google docs. For example, during a discussion of assigned readings, André asked whether as researchers we should give credence to draconian, racist arguments that "feed into traditionally oppressive systems," precipitating a discussion, albeit tense in parts, about whiteness and its latent holds on our own positionalities. Class members responded by proffering their own concerns about making generalizations in regard to positionality, privilege, and power based on whiteness, and whether it was a fair or just assumption. Outside readings such as Kimberlé Crenshaw's work on intersectionality and other critical race theory articles were brought into the conversation as class members joined a heated discussion about whiteness and the 3Ps (Walton et al., 2019). Because some of this conversation took place asynchronously on a Google doc, the instructor did not read the conversation until later in the week. Sano-Franchini was concerned about how students were feeling and how she might enter into and facilitate the conversation, given the range of positionalities present. In a rather long response, she endeavored to reframe the conversation in ways that were reflexive of how students are differently positioned within the course, and Sano-Franchini ultimately reminded students that "those who have the patience and wherewithal to do so should engage in ways that aren't dismissive or reductive" while also allowing that "Black folks [who] are pissed or [who] don't want to engage" don't have to do so because "they have every right to be fucking angry." As a class, we drew from the budding community we had been cultivating on Slack to sit with the ways our emotions could cause conversations regarding the 3Ps to get heated. Ultimately, while tense, this conversation expanded our critical thinking regarding dialogue and the assumptions we make about others.

Empowering and affirming moments such as the one discussed here were not uncommon, and Slack stimulated and encouraged these positive exchanges and group-bonding activities. As the semester came to a close, our class continued to enjoy and benefit from the use of Slack, and we made plans to continue using the platform to check in with one another in future semesters.

Accessibility

We begin our discussion of accessibility on Slack by highlighting racialized disparities in healthcare, especially given our temporal location amidst the COVID-19 pandemic. During this pandemic Black and Brown folks – including André's personal Black body – have had so much to lose, no thanks to systemic disparities in healthcare putting André and his loved ones at particular risk. Within this context, André did find Slack to be sensitive to the exclusion of Black bodies in the digital sense. Considering that exclusion (or rather remoteness of bodies right now) aligns with calls from medical professionals to help mitigate the effects and spread of the ongoing pandemic, Slack afforded us and especially those of us most at risk, remote working and learning options when our physical inclusion was not possible. If some students lack access to full participation within a course, that lack is sure to impact their sense of belonging in that course. Oswal (2015) and the Universal Design for Learning (UDL) guidelines provide helpful insights for creating an accessible space for all students. While Slack has many affordances for accessibility, we found Slack particularly helpful for its varied methods of response, usability for those in rural areas with limited internet access, and flexibility for taking necessary breaks.

One major advantage of Slack is the variety of response options, including but not limited to emojis, as we discussed above, as well as gifs, images, videos, and alphabetic text. Many students are not comfortable speaking up in class, regardless of modality. Slack allows students to type their thoughts and submit them to the group without the stress of being watched. On Slack, students can communicate their thoughts without interruption and without worrying about talking over another person or muting or unmuting their microphone. Slack also lets users know who is typing and thus forming a response, in some ways accounting for non-verbal cues that are often picked up in a face-to-face class and that may be lost with other online applications. This feature enables users to pause and give others time to form their responses at their own pace. As a result, Slack can foster more in-depth and

equitable conversations between peers. At times, face-to-face class discussions can move quickly without everyone's thoughts receiving acknowledgment or affirmation, whereas Slack allows commenting and emoji reactions at the touch of a button.

Furthermore, Slack does not require a high-speed internet connection, making it more accessible for those without reliable internet access. It also does not assume that everyone will have a laptop for class; Slack can be accessed on a smartphone from any location, and Slack eliminates pressure to turn on one's camera for class. Video calls lag when internet connection wavers, putting students in rural or remote areas at a disadvantage for participating in class. Lagging can cause anxiety for students who want to participate in class but lack confidence to do so because they missed what the person said before them. Not wanting to repeat something and seem redundant, that student might choose not to speak, making it seem like they are not fully engaged. With Slack, that is not an issue. Slack users can also pin messages that they can return to later. These pinned messages are personalized to the user, allowing everyone to create a directory of important messages on their account. Further, Slack's message archive allows users to easily return to points made in previous classes and notice trends in the conversation. Thus, users can momentarily walk away from conversations without losing track of said conversations, and they can archive a personalized list of interactions that they can easily search later. For example, if a caregiver needed to momentarily step away during class, they can do so without making an announcement or asking for permission. Moreover, they can do so without missing how the conversation unfolded, enabling them to participate in the conversation without feeling lost.

Relatedly, video-conferencing fatigue was an issue cropping up for some of us as online education continued during the COVID-19 pandemic. Marti explained that sitting on screen for long periods of time triggered her migraines due to overused neck muscles. With Slack, this issue decreased because she was able to look or walk away from the screen if needed. As described above, the archive of messages on Slack puts less stress on students to respond immediately and helps with screen and videoconferencing fatigue as it allows for breaks as needed.

Discussion

In this Methodologies and Approaches contribution, we reflected on our shared experiences of Slack, with attention to its capacity for meaningful, embodied, and active engagement that we are yet to experience in other technologies we have utilized thus far in online education. Slack as a pedagogical tool afforded us discursive real estate for airing out our grievances with systemically oppressive arrangements. Be it through our reading discussions mediated through a series of channels and sub/threads, or the ease with which we could engage concurrently with others on Twitter or elsewhere protesting unjust acts against Black people, or even our use of hashtags or the creation of merchandise (a class t-shirt), we were always moving toward action in the context of TPC a la Black TPC. We just weren't calling it Black TPC when we started.

Extending our discussion of community building and accessibility above, we developed what we refer to as a WARM framework for assessing instructional technologies in terms of intersectional social justice, community, access, and equity. WARM stands for workflow, accountability (to conditions of material inequality), representation, and multiple modes of expression (refer to Table 1). We developed this framework because we noticed how quickly new technologies are being adapted for pedagogical purposes and with varying outcomes for accessibility and inclusion; however, we have yet to come across developed criteria for assessing technologies that are being considered for teaching purposes, let alone criteria that focus on social justice concerns. In addition, WARM spells the word warm, which connotes a feeling of comfort, care, and embodiment – feelings that are pedagogically significant but often placed in opposition to how digital technologies are typically perceived – as cold, lifeless, and unaccommodating. As such, we follow Shelton's (2020) call to attend to bodies in TPC, by actively bringing embodied, affective human considerations into focus when making decisions about what technologies are best suited for what purposes, particularly in a pedagogical context. As such, WARM suggests that we ask questions such as the following when assessing instructional technologies with social justice in mind:

Table 1. Application of WARM framework to slack.

CRITERIA	APPLICATION TO SLACK	SOC. JUSTICE PRINCIPLE(S)	SOCIAL JUSTICE IMPLICATIONS
WORKFLOW Ability to easily transition across relevant technologies; ability to work at one's own pace and on one's own time.	Several other frequently used applications and features can be embedded within Slack, i.e., Zoom, Google Drive, giphy, polls, etc. Hyperlinks to Canvas and other online tools as well as digital files can easily be inserted into Slack workspace, and pinned as needed. These features are available to students across devices.	accessibility	Students can move across technologies with relative ease; students have some flexibility in terms of pacing and how quickly they move across activities and applications.
ACCOUNTABILITY Consideration of what material conditions are needed for fully using this technology.	Slack requires internet access and a laptop, tablet, or smartphone. As a primarily text-based technology, it is accessible for students in low-bandwidth areas, as well as for those who have access to only shared spaces and those who need to take screen/bio breaks. All users can read at their own pace, participate as comfortable, and step away momentarily as needed.	accessibility, pedagogical community building	Students are not required to have high speed internet access, a computer of their own, or a room of their own; students who experience screen-related migraines as well as caregivers can take breaks as needed, users can adjust text size, and use screen readers.
REPRESENTATION Ability to customize how one is represented, and to be represented in ways that feel true to one's sense of self.	On Slack one can easily change their full name, display name, and avatar as desired, as well as edit their profile, modify skin tone of emojis, and choose from a variety of means to express themselves (see below).	accessibility, pedagogical community building	These features encourage students to feel seen, heard, and valued as they are.
MULTIPLE MODES OF EXPRESSION Ability to express oneself through multiple means, in multiple ways.	Users can choose between private one-on-one messaging, direct messaging (mentioning someone), or small or large group conversations, as well as among multiple accessible modes of engagement and affirmation i.e., alphabetic text, emoji, emoticons, gifs, images, textspeak, hyperlinks.	accessibility, pedagogical community building	Students can access flexible avenues for class(room) participation. Ability to affirm quickly and easily can promote feelings of camaraderie and kinship.

Workflow

- How easy is it to transition between the technology under evaluation and other commonly used teaching technologies? For instance, is it easy to embed other frequently used apps?
- Are points of transition across technologies accessible for diverse students, considering the disproportionate effects of social and environmental disasters on racialized communities, as well as issues of class and access to material resources, cultural differences, disability and other embodied differences?

Accountability to conditions of material inequality

- What material conditions are needed for fully using this technology: i.e., does it assume a room of one's own or a certain level of internet access? Is it accessible even for students in low to no internet bandwidth areas? Is information printable and visually accessible as a printed document?
- Can everyone in the classroom community pace themselves, and step away and return as needed?

Representation

- Does the technology encourage diverse, accessible ways to express immediate affirmation: e.g., emoji (similar to head nodding in face-to-face conversations)?
- Does the technology encourage students to be represented as they want to be represented, whether through user names (that are not limited to their name on school records), avatars, uses of color, font, etc.?

Multiple modes of expression

- How easy is it to choose between direct, small group, and large group conversations? Is there an option to make conversations accessible to (overheard by) other members of the classroom community?
- Are there multiple accessible modes of engagement and affirmation?

We imagine WARM being helpful for teachers who are making decisions about what instructional technologies to incorporate in their online teaching as well as for technology designers. We note, however, that institutions may have restrictions on technology adoption with students' privacy and intellectual property rights in mind. Teachers should collaborate with their educational technology or other appropriate office to determine what technologies are best suited for their pedagogical purposes. At the same time, our framework may help teachers make arguments as they advocate for technologies that are most appropriate for diverse students' learning. Moreover, although this paper focuses on the use of Slack for online instruction during a pandemic, the framework above extends beyond COVID-19. We ask TPC instructors, whether working during a global pandemic or beyond it, to consider this framework that emphasizes Black TPC and social justice pedagogies, and to persistently reflect upon the capacities of instructional technologies in relation to our positionalities to create an equitable and enriching learning space for everyone.

LIMITATIONS

Although we highlighted some of the more positive elements of Slack for social justice-oriented online education, as with any technology, Slack does have limitations. To be clear, we do not mean to celebrate Slack as a socially just technology per se. As we illustrate above, Slack does not necessarily make difficult conversations about polarizing and politicized topics easier, and we recognize that how

different users interact with the technology could lead to different outcomes. In addition, Slack can be less accessible for those who type slowly or have carpal tunnel syndrome. Slow typing can be stressful for students because the pressure to keep up with the pace of class might be anxiety inducing. Similarly, adding Slack into the mix with other technology platforms needed for a course might feel like too much to keep track of, especially for first year or transfer students getting acclimated to university technology. Additional research is needed to understand how to integrate Slack in undergraduate courses where some students might be more familiar with and prefer video. Increasing screen time across multiple apps, albeit for educational purposes, can increase burnout or migraines, as was Marti's experience. Teachers must also actively mediate the use of Slack within an online environment, teaching students strategies such as how to slow down a conversation; turn off notifications and set oneself as away; and use threads, bookmarks, and other features on Slack.

Using Slack as a teaching tool also privileges certain digital literacies and digital access. While many institutions provide students with technology when they need it, requiring the use of Slack during class time requires students to have a computer or phone readily available during a specific time frame, a requirement that might not be accessible or equitable to every student in the class. Using a public computer to access Slack, whether through a personal account or university account, still impacts the privacy of class conversations as students are having to perform class conversation in a public space on a public computer, where there is increased risk of surveillance. Moreover, students who have limited experience with computing technologies might struggle with engaging on Slack.

Lastly, we recognize that Slack is not sanctioned by every institution, and it is important for students to understand any privacy concerns before using Slack. We acknowledge that if an institution does not have Slack available, asking students to use Slack on a personal account could raise ethical concerns about what information the student might need to provide in order to participate in class. As with many online platforms, Slack requires an e-mail address and other identifying information to be able to sign up for an account, and requiring the disclosure of such information for a grade could create an ethical dilemma for instructors. Specifically, requiring students to use a platform where their personal information might be subject to third-party use poses a breach in ethics because students no longer have control of their personal information once they have given that information to the platform.

Furthermore, even if Slack is offered through the university, students and administrators should be aware that all conversations and posts made via Slack can be reviewed by their institution at any time. As a result, those hard conversations that we have alluded to in this article could be monitored by university administration, in addition to any other conversations that occur on the channel. We are not suggesting that university administrators will be reading every Slack conversation thread, and it is important to note that administration can only view, not engage, with Slack threads. Rather, we acknowledge that the potential for administrative surveillance exists, and awareness of this possibility might impact how teachers and students act in such spaces.

Nonetheless, educators who are considering Slack can take these points and present them as a learning opportunity. For instance, teachers can facilitate discussions about administrative surveillance of institutional messaging applications and how students might engage on such applications and form responses with this context and audience in mind. They might find that despite some privacy concerns, these challenging issues can be brought into class discussions, thus supporting students' ability to speak confidently on such important issues.

CONCLUSION

In lieu of a physical classroom during the fall 2020 semester, Slack made it so as a community, albeit under the auspices of the institution and for the purposes of grades, we were still able to engage concurrently with scholars and others globally championing social justice either through scholarship or protests in the streets. Mckoy explained, "Black TPC is exemplary of the need to amplify the voices, lived experiences, and ways of knowing for Black individuals in and out of TPC" (Mckoy et al., 2020). She

challenges TPC practitioners to consider how their interests diminish the exigencies of Black or other historically marginalized communities. Of questions to consider as a heuristic for practicing Black TPC as a community, Mckoy's "[i]s your question on how to implement Black TPC centered around only yourself and your needs, or that of your students and fellow practitioners?" stands out (Mckoy et al., 2020). Admittedly, in writing this piece we struggled with the ethics of conveniencing a pandemic that to date has wrought more damages amongst Black people and other marginalized groups in the U.S. for the purpose of a publication credit. This kind of credit in the midst of so much death felt gross and challenged us to no end both morally and methodologically in responding to a moment that in truth needs more voices than it does idle, like-minded appreciators standing on the sidelines. Against the backdrop of the pandemic and with the expressions of Black TPC panelists cached in our brains even as we continued to navigate the pandemic at the terminus of the semester, we ultimately felt that as a learning community centered on contributing to socially just futures for as long as the pandemic persists and well beyond the crisis, we were duty bound in taking our new knowledge public for the consideration of the greater TPC community at large. Inspired by Mckoy and the tenets of Black TPC, we wanted to keep community and the people within them – specifically, Black graduate students and TPC practitioners, as well as others structured into the margins (to again borrow Shelton's language) – at the heart of our work.

Disclosure statement

No potential conflict of interest was reported by the authors.

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