Access Under Duress: Pandemic-Era Lessons on Digital Participation and Datafication in Civic Engagement

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This paper examines the rapid turn to remote public meetings during the COVID-19 pandemic. Drawing on a mix of archival materials, participant observation, and interviews within and around two mid- to large cities in the Rust Belt and Midwest regions of the United States, we consider how public officials introduced digital meeting platforms and surveys in place of traditional forms of in-person public consultation. We also examine emergent strategies of residents as they worked to have their voices heard and concerns met during a time of compounding crises (e.g., pandemic, economic recession, racial violence). Drawing from this case study, we articulate the concept of disruptive testimony, forms of public witnessing that trouble established hierarchies of power, surface conflict, and open opportunities for social change. We argue consideration for collective counter-power is increasingly important to GROUP scholarship as it attends to civic engagement beyond participation in formal, sanctioned government processes.

CCS Concepts: • Human-centered computing → Human computer interaction (HCI) → **Empirical studies in HCI**

KEYWORDS: Civic engagement; datafication; digital civics

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1 INTRODUCTION

In the United States, local government decisions are regularly made behind closed doors, with a privileged few having access to the rationale driving municipal policy making. Though open government advocates have long called for greater transparency and more meaningful engagement, the COVID-19 pandemic has further intensified concerns around public consultation. The forced move to virtual meetings has revealed the degree to which previously cited barriers to in-person participation (e.g., lack of transportation, caring responsibilities, and work constraints) could be alleviated with adequate remote access, and lead to a greater volume of engagement[29]. However, the transition to remote participation has also amplified existing organizational cultures and approaches to participatory decision-making, namely the skeptical and antagonistic views cited above. With the stakes as high as a global health crisis, the rift in direct participation becomes a dire concern. From how pandemic relief money is spent [64] to the

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dispersal of vaccines [60] to COVID-19 release decisions from jails and prisons [62], life very much depends on informed and accountable decision-making processes.

Drawing from our analysis, this paper develops the concept of disruptive testimony. Disruptive testimony constitutes forms of witnessing that trouble established hierarchies of power, surface conflict, and open opportunities for social change. This idea builds on the work of political theorist Clarissa Hayward who describes the role of epistemic disruption in combating structural injustice [32]. With the Civil Rights Movement, for example, sit-in protests interrupted the incentivized ignorance of White Americans across the country [31], with depictions of racist violence against protesters forcing members of dominant groups to take sides. Acts of disruption, Hayward argues, prompt shifts in public discourse and impel political negotiation. A key component of disruption for Hayworth is the withdrawal from existing power relationships and narratives preserving the status quo, which requires a coordinated, collective effort refusing to cooperate with a dominant agenda [32]. Disruptive testimony, we argue, embraces the collective narrativizing work necessary for such refusal, and appropriates "agenda setting power" from those with established political control.

Here, we describe how the wide-scale move to remote meeting platforms has impacted local politics in ways that have led to the loss of disruptive testimony. To arrive at this argument, we draw on interviews with public meeting attendees, local activists and advocates, and government officials within and around two mid-to-large cities in the Rust Belt and Midwest regions of the United States, as well as participant observation over the course of a year. We pair this empirical data with analysis of archival materials and legal documentation to reflect on how the rapid turn toward remote, digital public meetings during the pandemic has led to competing amplification of both access and control. Through our interviewees' accounts, we find that the expanded connection granted through virtual meetings can indeed be valuable, with remote technologies contributing to community agency and participation among those who would traditionally be excluded (e.g., work evenings, lack access to transportation). Yet, our analysis also highlights how platforms that allow facilitators to limit or reduce community voices enable exclusionary forms of governance. Through our interviews with activists, we learned how their advocacy tactics were displaced and there was an increased likelihood that their concerns would not be heard or addressed. Our analysis examines the underlying power dynamics affecting remote gatherings and how new, datafied techniques of consultation threaten to forestall engagement.

This research offers two key contributions to the GROUP community. First, we share a detailed case study on the effects of the rapid turn to remote public meetings and other digitized modes of engagement (e.g., surveys, city portals) amid the COVID-19 pandemic. By detailing the platforms and processes adopted, we show how they newly define how residents are meant to interact with their local representatives and government officials. These observations offer a glimpse into the coordinated work of public engagement across a set of small to large municipalities. Second, we offer disruptive testimony as a concept to explain the shifting nature of how people voice political claims to challenge an unjust status quo. We find residents take up disruptive testimony at different levels of governance and across engagement channels in ways that reveal the limitations of structured comment. To show this, we detail how testimony is used across a series of vignettes to promote forms of accountability within the space of racial justice. We describe how public meeting facilitators took up the tools of audio and video conferencing in ways that foreground efficiency, at times making it difficult for those most affected by structural injustices to have their experiences heard. In this process, we illustrate how digitized control may reinforce or extend existing social hierarchies, while also describing how organizers and activists tested new forms of disruptive testimony to reorient discussions toward the lived consequences of political decision-making.

The paper that follows engages with the concept of disruptive testimony across three core parts. We begin by discussing a set of legal and theoretical frameworks meant to reinforce the right to voice oneself within the space of public meetings, and later connect these discussions to

the rich and growing literature on digital civics within the fields of GROUP and CSCW. We then explain our methods and turn to several cases that explore the shifting nature of participation in remote public meetings. We end by discussing the wider stakes of disruptive testimony for computer-mediated collaboration, particularly on the design and use of civic technologies.

2 BACKGROUND

To understand the conditions of public access to political decision-making, we turn next to a description of legal frameworks governing civic engagement and subsequent critiques. Though we acknowledge our focus on forms of political participation within the US elides broader discussion of civic engagement across national boundaries [28,43], we seek to offer depth to our empirical accounts as situated within a particular time and place — subject to a compounding set of crises and distinct regulatory boundaries.

Within the US, community engagement requirements are a component of several legal frameworks. Many state, regional, and local planning procedures aim to solicit community input from stakeholders who may be impacted by public sector projects (especially those backed by capital funding that may impact land development) [58]. These meetings are intentionally phased within the design process, using stakeholder input to shape the placement, purpose, structure, and implementation of a project. Sunshine Laws regulate broader community requirements and mandate deliberation meetings remain open to the public [18]. The original federal Sunshine Act of 1976 passed in the wake of a national controversy over abuses of power [67] and requires agencies to give at least one week's notice of a public meeting and its agenda. Most state laws also give the right to voice public comment at a meeting's opening or closing [61]. However, meeting organizers vary greatly in their interpretation of what it means to adequately provide notice to community members, offer transparency in their decision-making process, and be accountable to the opinions of constituents. According to a survey administered by the National League of Cities, public officials often take a skeptical view on the public's ability to weigh in on government affairs, pointing to a steady cast of participants proposing their own favored solutions [6]. At the same time, community members report finding the public process disempowering [51].

Though community engagement processes may demonstrate a commitment to transparency, power inequities commonly misalign intentions in practice — giving the appearance of participation without much by way of accountability [54]. For example, sociologist Floyd Hunter famously articulated a history of local government decision-making in the city of Atlanta directed by a small group of business leaders and "elites" [35]. Within the fields of political science and urban planning, scholars regularly critique public meetings as falling short of ensuring meaningful public input, either fulfilling cursory requirements or even co-opting attendance to claim public approval [27]. Sociologist Herbelein classifies typical engagement procedures as serving an "informative, co-optative, ritualistic, or interactive" role [33], and urban planning scholar Checkoway argues that agencies often use public meetings to satisfy legal requirements, diffuse resistance, or build support for and legitimize existing plans [13].

Embedded in typical public engagement models is an embrace of deliberative democratic principles, upholding rational debate as the gold standard for decision-making with its emphasis on decorum, objective notions of evidence, and a proceduralist approach. Critics have argued that deliberative democracy enacts a form of "epistemic colonialism," where marginalized communities face heightened personal stakes for advocacy [5] and find it harder for their perspectives to gain purchase [12]. Scholars of Critical Race Theory (CRT), for example, have long questioned the strong focus on procedure in community engagement practices [66] and account for structural racism within policy-making [69]. Projects to rethink democratic practices with new participatory tools and spaces must contend with these realities of racial hierarchy and injustice.

In a recent analysis of democratic approaches in the context of COVID-19 era political unrest, political scientist Hans Asenbaum describes how deliberative and agonist approaches fail to address inequity, and instead turns to transformative perspectives [4]. Borrowing from queer and feminist theories of performance, Asenbaum uses transformative democracy to understand presence as a process of political creation [4]. Political theorist Amanda Machin speaks to the importance of physical embodiment, with bodies playing an active role in rupturing a dominant order and transforming collective identities [46]. Asenbaum connects "identification" as a tool of state control [63]to the power of physical presence and performance in political spaces as means to shatter assigned identities [4]. This rejection of assigned identities opens transformative paths to new or recoded identities of collectivity and multitude [4]. Further, tools such as storytelling or testimony from historically under resourced communities—for example, Black, indigenous, immigrant, and gender-nonconforming people—provide counterpoints to status-quo decision-making [14]. Resisting dominant narratives, counter-storytelling elevates the experiences and truths of those who have been subjected to violence, indignity, and whose claims are too often ignored [66].

With the COVID-19 pandemic, the introduction of virtual or remote participation follows a wider push for tech-based approaches to urban planning improvements and "civic tech" upgrades seeking to offer more deliberative spaces and public services. However, projects in this vein may also contribute to an increasing number of data-driven exchanges for services, whether it is monitored access to public space or social welfare services predicated on personal information sharing. In the sections that follow, we chart related GROUP and HCI scholarship that engages with questions of public technology development, datafication, and alternative understandings of civic participation.

3 RELATED WORK

Scholarship on civic participation spans a patchwork of disciplines, from public administration and urban planning to political theory. In the sections that follow, we focus on two key threads of research that inform and motivate our work most directly. The first is the emergent domain of digital civics, which seeks to support more relational models of service provision and participation through digital technologies. The second body of research considers how the heightened use of data-driven technologies within government contexts has newly constrained the kinds of interactions available at all.

3.1 Designing for Engagement

Over the last decade a wide range of HCI and CSCW research has focused on questions of civic engagement and political participation [15,21,24,40]. Distributed voting machines, such as Nick Taylor et al.'s Viewpoint, seek to gauge public opinion and normalize the act of voting in everyday settings such as the corner store [73]. Similarly, Vasilis Vlachokyriakos and colleagues [76] explore the use of sensor-embedded posters situated throughout a community as a means of supporting grassroots organizing. Alex Taylor et al. [72] reflect on the spatial relations of data produced among residents of a single city street, materializing the social arrangements and boundaries associated with place-based data technologies. Gordon and Schirra focus on the space of public meetings in describing "Participatory Chinatown," a 3D role-playing game designed to be played to collectively consider and imagine development initiatives in Boston's Chinatown neighborhood [25].

Critical to these and other projects seeking to develop tools for public life is consideration for the forms of democracy adopted or implicit in the design [75]. Mariam Asad argues much of HCI scholarship on civic engagement defaults into liberal democratic principles of deliberative and representative democracy [2], with many computing interventions and tools designed to scale participation towards a voting paradigm [42], increase access to representatives [53,57], monitor

and relate to urban infrastructure [41,55], and perform different forms of crowdsourcing and citizen science [30]. Similarly, Carl DiSalvo's critique of deliberative democratic assumptions of shared rational decision-making introduces a design theory that embraces a cycle of contestation – or, agonism – through the lens of adversarial design [16]. Turning toward the critique of tools designed within deliberative democracy, Matti Nelimarkka [57] draws on an extensive literature review of HCI research on participation in democratic decision-making to argue for the need to shift focus as a field from the development of isolated tools that gauge opinion or promote deliberation toward the broader landscape of assembly-based participation. No system can lead to transformation, Nelimarkka further argues, without being connected to the larger socio-political context of change. To this end, Asad's vision of prefigurative design for civic engagement focuses far more on the tools and spaces created by activists to scaffold their own radical work outside the realm of government decision-makers [4].

Digital tools that seek to support citizen participation, community engagement, and online deliberation have also been critiqued for the risk they face in being co-opted by local governments — used as a means to appear consultative, without a genuine commitment to listen. Valeria Monno and Abdul Khakee delineate two distinct forms of participation through a comparative case study of tokenistic and radical forms of engagement, in Sweden and Italy respectively, to argue for the need to engage with the power relations that underlie public consultation procedures [56]. Similarly, Thomas Lodato and Carl DiSalvo [44] interrogate "institutional constraints" as a means of recognizing barriers to designing within municipal contexts, and push for researchers to develop new strategies and tactics of political alignment. Illustrating the stakes of positionality, anthropologist Shannon Mattern [50] narrows in on the public meetings facilitated by representatives of Alphabet's now-abandoned Sidewalk Labs initiative in Toronto. Examining the engagement process espoused, she shows how common methods of participatory design such as co-mapping and post-it note exercises were co-opted to support corporate motivations. Here, the aesthetics and tools of design delivered only promises of civic engagement through a technique Mattern calls "mapwashing," with elite decision-makers dampening the power of community input along the way [50].

3.2 Digitizing Civics

Building on the design of civic technologies and subsequent critiques, recent scholarship considers the integration of data into the management of city functions. McMillan et al. [54] draw on interviews with government officials to suggest that data is "flawed yet active," not necessarily left unchecked as pundits may argue, but instead absorbed into existing bureaucratic structures and reinforcing current distributions of power. Using the theoretical lens of "object oriented ontology," Jenkins et al. [37] attend to the ways computing technologies contribute to the constitution of publics in novel ways—not simply augmenting human action, but also as objects and systems that meaningfully shape the social and political issues they're meant to address.

Another prominent dimension of computing's impact on civic life is captured in the concept of legibility, as discussed by Dietmar Offenhuber in a study of waste tracking and participatory sensing projects across Seattle, São Paulo, and Boston [59]. Offenhuber describes legibility as two distinct forms of making a city "readable," from above and from below. From above derives from anthropologist James C. Scott's notion of high modernism, or the belief of those in positions of authority that society can be designed and operated according to scientific laws [65]. Broadening the earlier mention of "identification" as a tool of state control [63], legibility entails the simplifications imposed on complex human systems to make them "readable" for management, and exercising their own authority and control. Legibility from below, on the other hand, draws from Kevin Lynch's research [45] on how urban dwellers orient themselves in a city, defining legibility as the degree to which the parts of a city can be commonly referenced and understood as a part of a whole. Within HCI, legibility from below renders itself in Freeman et al.'s [22]

argument for smart cities initiatives to more meaningfully engage the knowledge of local community members and Mark Blythe et al.'s [8] work to push back on the solutionist impulse of many proposals to instead deliberately co-create absurd or silly objects.

Related to legibility is datafication, which refers to the practice of centering the collection and analysis of data in decisions around service provision. In their ethnographic study of a social welfare program in Denmark, Holten Møller et al. [34] describe citizen-applicants as "co-producers" of public services, as they source supplementary data to make their experiences and social contexts more legible to the systems caseworkers rely on to make decisions on access to social welfare programs. Here, datafication takes on dual roles of support and control, determining the terms of access through increasing use of personal data. Datafication also extends to the realm of representative politics, where digitization has taken the form of customer relation management systems (CRMs). Initially intended to enhance the speed and responsiveness of communication between representatives and their constituents, this shift instead constrains how policymakers engage citizens and shapes the very idea of communication (e.g., form responses, tallying or numerical presentation of opinions) [53].

4 METHODS

To understand the impact of digital tools on public participation, we focused on the experience of public meeting attendees, and an unfolding array of advocacy and legislative initiatives. In July of 2020, we began conducting a series of interviews with community members, journalists, advocates and activists, and government officials on their experiences with the transition to remote public meetings. We also conducted participant observation at public meetings roughly 1-3 times a month for the 9 months following. Complementing and extending this empirical data, we identified emergent community issues and prominent public bodies and captured associated media coverage, publicly released materials, and meeting records. Finally, we sought to develop a contextual view of the impact of COVID-19 in the shift towards remote technology by examining the evolving legal frameworks governing public process, collecting supporting archival materials.

Our project uses the above investigative tools to draw out the political and social conditions that define civic engagement during this period of rapid transition. In particular, we used qualitative inquiry to examine two core questions: 1) *What impacts does the wide-scale shift to remote meeting platforms have on local politics?* 2) *What forms of community engagement does this shift open or foreclose?*

Ethnographic observations. We built off two years of involvement in local organizing in the City of Pittsburgh, including public meeting attendance pre- and post- pandemic. Our existing participation in local transit advocacy and racial justice movements preceded this project, motivating our research inquiry on access and disruption and informing our commitment to social-justice oriented research practice [3]. During this time, we documented participation in these movements via field notes, memos, and gathered archival materials and digital traces. Archival materials included recordings of meetings, agenda and minutes, news coverage, social media calls to action, legislation, portal, public comments hosted online, minutes and agendas of public meetings and court records. In the spirit of justice-oriented research, as a reciprocal act of engagement, we provided testimony in public comment reflecting the calls to action of racial justice organizations whose members we interviewed [71].

Interview data. We conducted a total of 19 interviews with public meeting attendees from two metro areas in the Rust Belt and Midwest regions of the U.S., focusing on the major metropolitan areas of Pittsburgh, PA and Chicago, IL, as well as smaller outlying municipalities. We also interviewed "first time" attendees of public meetings to understand the role of remote access in the motivations for and quality of their participation. Several interviewees were employed by the nonprofit journalism project Documenters to comprehensively document public meetings, which

gave us insight into traditionally sparsely attended public body meetings. Our conversations with several journalists added understanding on changes to the reporting process. Interviewees also varied across sector, which was significant given the different legal frameworks that govern public process involving capital infrastructure projects compared to other domains such as education or criminal justice. Interviewees often wore several hats in their public meeting participation roles – for example, many Documenters also engaged in reporting, nonprofit employees also facilitated official public meetings, advocates served as current or former elected officials, some activists separated their organizing from their official (often nonprofit) advocacy roles, and others considered them one and the same. Finally, to understand motivation around designing and releasing civic platforms, we interviewed city staff involved with the deployment of a digital engagement portal.

Our interviews continued steadily from April 2020 to October of 2020, following major community campaigns occurring throughout the summer and fall. Later, in the spring of 2021, we conducted another round of interviews to account for shifts since the initial transition phase to remote public meetings which some local government organizations were better equipped to handle than others, as well as to chart extended or new community campaigns. With each round of interviews, we analyzed our data thematically using inductive techniques of contextualized grounded theory until a confluence of themes began to emerge, leading to a saturation of insights [12]. This approach allowed us to foreground emergent forms of access and control, as well as the role of remote platforms in defining these experiences. While attending public meetings or responding to community campaign calls for public meeting attendance, we kept an ongoing log of reflections and revisited digital transcripts of meetings. We developed reflexive memos based on our field notes and other empirical materials and reviewed them together during weekly meetings. We then iteratively revisited and refined our interpretations across later rounds of analysis, building emergent foci such as our interest in governance and defiance.

Following a narrative ethnographic tradition, we present our findings through vignettes, in ways that are meant to contextualize and represent thematic patterns that emerged within and across our data [9,26]. The sections that follow organize these vignettes according to a range of access we encountered: from denial to aggregate to datafied. In drawing together these narratives, we build toward a textured understanding of remote platforms and what they reveal about the structuring of civic participation that has begun to take root during the pandemic.

5 FINDINGS

In what follows, we weave together accounts of disruptive testimony across four sections to tell a story that increasingly builds to inform our understanding of remote public engagement during the pandemic. First, we describe how meeting facilitators determine who has access, as well as how those interactions are mediated. Second, we consider how the aggregation and categorization of public comment (rather than in-person delivery) by government officials flattens the affective quality of community concerns. Next, we examine the use of online engagement tools to quantify public sentiment, but without reciprocal reports on their results. Finally, we consider "people's spaces" as a tactic for expressing counter-narratives outside the bounds of traditional, deliberative forums.

5.1 The Question of Meaningful Access

Accessibility holds the key to many seeming contradictions in the process of engagement via online public meetings. On the one hand, attendees remarked on how the shift to remote made public meetings accessible for the first time, due to standing work conflicts or accessibility constraints. Many were also able to join meetings across multiple locations. One interviewee noted being present for public meetings in their town of birth, their current city, and the city where they had last participated in advocacy. This broad "tuning in" could be seen in our own

observations, where we witnessed significantly high numbers of attendees joining for meetings, particularly on issues of racial justice with some running as long as eight hours.

There were clear instances of access provided by the virtual format missing previously. One interviewee described a labour board meeting where a construction worker called in while on his work site:

> *"He asked 'Are you guys going to live streaming meetings? Are you going to have them like telecasted or whatever, so that people can call in?' Because working people can't attend their meetings, which [has] always been the sticking point. And then one of the committee people was so condescending. And she was like, 'Oh, no, we're not going to do that. We just don't have the capacity.'"*

Unfortunately, this instance of access was temporary - though the worker was finally able to join via phone call due to the transition to remote gatherings amid COVID, there was reluctance on the part of the agency to provide a long-term solution. Additionally, while the increased access shepherded in with remote meetings was regularly praised by interviewees, many aspects of online meetings also created gatekeeping effects that relied largely on procedural knowledge, such as where to find the details of a meeting, how to discover the online meeting link, when to register, and how to access the meeting at its opening. During audio-only meetings, for example, attendees noted significant difficulty understanding meeting procedures as they couldn't follow along with slides or access agenda documents.

Alongside the spread of COVID-19, during our research, George Floyd's death prompted widespread calls for racial justice across the United States, as well as heightened interest in pursuing accountability from local and national decision makers for police violence. In the next section, we consider a case from our fieldwork where McKeesport, PA residents sought accountability after a police-involved shooting led to an area-wide dragnet conducted by 10 law enforcement agencies and resulted in unconstitutional searches and seizures of Black residents. Though their initial efforts to voice concerns in their local Council meeting were met with exclusion, residents took up legal measures and eventually won the right to "meaningful access."

5.1.2 Struggle for Accountability in McKeesport

In the days leading up to Christmas of 2020, Black community members in the city of McKeesport found themselves caught in the midst of a manhunt for Koby Francis [70]. On a Sunday afternoon, area officers apprehended Francis for a violation of a protection order. Shooting his way out of a squad car, Francis injured officer Geriasimo Athans and escaped custody [70]. Within the day, more than ten different police agencies descended upon McKeesport, setting up at least four checkpoints and posting special operations tactical vehicles around the city's downtown [70]. Several houses were searched without warrant, with police allegedly shouting "shoot to kill" as they hunted in the homes of relatives and unrelated community members in the local public housing project [70]. Vehicle searches were reportedly conducted at gunpoint, continuing into the early hours of the next morning [70].

While this was happening, one of our interviewees, Fawn Walker-Montgomery, leader of the local racial justice advocacy organization Take Action Mon Valley, began receiving numerous calls from residents experiencing police intrusions. A feeling of occupation extended to fear of retaliation and violence from police, with Walker-Montgomery expressing, "my biggest fear was that they were going to kill anybody that looked like [the suspect] that night. So, basically, that's any Black person" [70]. She spent that night documenting police raids and advising frightened community members to comply. "Being in that position is very traumatic, because you know you have rights, but you know if you use those rights, if you bring them up, you could die," Walker-Montgomery explained [70].

The local county police Superintendent Coleman McDonough brushed off concerns around law enforcement's actions in a press conference, referring to a need to "get results when there's a danger to the community out there" [83]. The implication to Walker-Montgomery and fellow residents was that "public safety" justified the invasive and unlawful tactics, and that Black community members represented reasonable targets for suspicion by virtue of their race. To those in the audience who might be skeptical of the tactics, the superintendent suggested "[bringing] that to the attention of the department that was involved in that search" [83]. Though seemingly straightforward, McDonough's advice could not be so easily achieved in practice. The county encompasses a patchwork of municipalities across an expansive region, covered by no less than 100 independent police departments. With over 10 of those departments participating in the manhunt, there were not only questions on which department one might need to approach, but also a general lack of reporting channels that would take account for department-wide violations of resident rights (the county does not currently have a civilian oversight board for police misconduct).

In documenting the experiences of 18 victims and eyewitnesses, Walker-Montgomery and colleagues made two demands: 1) the suspect to be brought in alive and 2) accountability for the unlawful police actions taken in his pursuit. In addition to making public calls to the Mayor, local police department, and the county District Attorney, Walker-Montgomery urged residents to sign up for the following month's City Council meeting. In our interview, she spoke to the goal of "equip[ping] communities with the necessary skills to be able to leverage decision making," and to recognize the power of using their voices to hold public officials accountable.

Walker-Montgomery and eight others affected by the police manhunt gathered in person at the January McKeesport City Council meeting ready to testify about their experiences. However, they were met with a cancellation notice taped to the door, citing COVID-19 concerns. The meeting continued without their attendance, according to the Council's later posted agenda [82]. Walker-Montgomery recalled the experience: "I've been on Council there you know, so I know the process. It's always been that you come around 6:45. There's a sign in sheet, if you want to speak, you sign in and that's it and get your three minutes. So I was very surprised when we showed up and the door was locked." To Walker-Montgomery and others present that day, this constituted a clear violation of the Sunshine Act.

Together with ACLU-PA, Walker-Montgomery quickly filed an injunction against McKeesport City Council for denying the public access to the meeting. The next month, the City Council cancelled their public meeting altogether citing "lack of agenda items." On the same day as the resolution of the court case, the Council held their March meeting via live stream, allowing only written public comment.

During the court hearing, McKeesport City Council representatives stated that their phone-based conference system was unable to accommodate a large number of simultaneous callers. In the ACLU-PA complaint, Walker-Montgomery and others referenced: "Countless other government agencies, including those in McKeesport [...] able to provide at least electronic access through Zoom or other videoconferencing technology to fulfill transparency and participation requirements for citizens and the media." The court itself presented a plethora of options, including Zoom, Microsoft Teams, and TurboBridge, with the Council eventually landing on a virtual phone conferencing platform at $10/month. At the close of the case, McKeesport officials signed a consent decree to provide "meaningful public access" that required audio or video access to official deliberation (and not simply text-based comments in advance) [80]. In this case, with reports of unconstitutional searches and seizures, Council meetings represented an important space for testimony, with an audience of decision-makers forced to confront the traumas endured by the community.

Though McKeesport residents were eventually granted "meaningful public access," the media attention surrounding the event and the momentum of affected local community members was diminished by the time the McKeesport City Council held its first virtual meeting in April 2021.

Four months had transpired since the initial call to action, and there were 9 public comments in total (6 written, 3 given verbally). The first public comment was impossible to understand due to audio quality issues with the platform, which remained a recurring challenge over the course of the meeting. Another commenter provided upsetting testimony of treatment she endured during the December police lockdown. However, the Council was generally dismissive, with one member referring to the raids as difficult "for all sides." Though initially streamed with the help of a local news outlet, the meeting video was later made private, foreclosing opportunities for ongoing engagement or reference.

Across this account, the struggle for "meaningful public access" represents the displacement of public witnessing, specifically testimony of lived experiences of racial injustice. Media accounts of later meetings were sparse in contrast to the initial police raid and lawsuit. The disruptive power of the public meeting appeared to have diminished, with reporting on public meetings made more difficult due to challenges accessing sources and the audio-only format preventing comprehension.

Stepping back from our McKeesport vignette, the constraints associated with audio-only meetings were reflected broadly across our interviews. Our interlocutors often described them as the most difficult to follow, despite being offered as one of the most prominent remote access options at the start of the pandemic. None of the public meetings mentioned by interviewees or observed by our research team featured the accessibility practice of identifying speakers verbally or offering descriptions of written materials such as slides. For one Chicago Documenter, the lack of identification of speakers presented a real challenge to understanding the proceedings and created a dynamic where attendees were at a disadvantage (as compared to government officials) simply by not knowing who was in the room. "I would just have no clue at all, whatsoever. I think that [the board] probably all know each other by voice," he articulated. This challenge was also reflected in our discussions with a Pittsburgh area reporter who covered public meetings, illustrating how the lack of shared names impeded their reporting: "I don't even know if I'm getting their names [...] and sometimes the audio isn't great. And then, there's a lot of people saying a lot of things, it would be nice if I could have some way of approaching them as a journalist." Without identifying markers of those in the room and, perhaps more importantly, those providing testimony, the affective power of counter-storytelling and subsequent documentation of those accounts was diminished severely.

In the next section, we explore how this dimming of counter-storytelling power in virtual space through the loss of identity and embodiment created challenging conditions for allies and community members of incarcerated individuals to advocate under critical circumstances. We also see how the dampening of disruption through platform choice lent itself to the simplification and silencing of public testimony, and how this process in turn lead to datafication.

5.2 Procedural Shifts, Restrictive Facilitation

Once in the "room," a variety of platform features can be leveraged to determine the degree to which attendees are able to express themselves. Though in-person mechanisms of control (e.g., physical restraint, locked doors) aren't available online, hosts can mute or kick participants out of meetings. Our interviewees regularly noted feeling there was significant control conferred to public meeting facilitators in establishing the tone of meetings through setting the visibility of participants or how interactive a meeting could be (e.g., use of chat). They also stated hearing that restrictive signup procedures and interactions were applied in the name of security concerns, such as preventing Zoom-bombing. Emerging during the COVID-19 pandemic, Zoom-bombing can be characterized as unwanted intrusion of internet trolls into a video conference, hijacking a gathering to insert obscene or offensive material via video, audio, or chat [19]. However, some interviewees suggested meeting controls were not exclusively utilized to prevent trolling or abuse. For example, one Chicago Documenter recounted the experiences of a colleague who

identified herself as a journalist, which they believe prompted facilitators to disable the chat function.

In the next vignette, a drastic transformation of public space occurs in a public meeting site which was formerly a rich space for disruption on the part of those fighting for safer conditions inside the local jail. In its virtual form, the meeting space excluded voice-given testimony; instead, aggregating written public comment in a form of datafication.

5.2.1 Voices Lost in Aggregation at the Jail Oversight Board Meeting

The Allegheny County Jail Oversight Board (JOB) is a decision-making body whose meetings have historically served as a public site of contention between activists and jail management. Advocacy organizations and activists regularly called attention to the use of violent correctional techniques and that Black residents are incarcerated at disproportionately high rates (67%, despite making up 13% of the county population) [38]. In 2019, Black and trans advocates poured into Jail Oversight Board meetings to voice concern about the unsafe treatment of transgender inmates held in the jail, giving testimony on experiencing violence and harassment and filling a lawsuit on behalf of a transgender woman who was sexually assaulted while held in male quarters [84]. During the next meeting, the JOB closed public comment period and in protest Black and trans advocates spoke anyway. They were forcibly removed and arrested [49].

At the onset of the pandemic in the US, the JOB cancelled their April 2020 meeting citing COVID-19 concerns. However, with the spread of COVID-19 in jails resembling that of other clustered populations (i.e., nursing homes, cruise ships), compassionate release decisions and vaccine distributions posed an urgent public health question to inmates, staff, and surrounding communities [62]. The ACLU filed an emergency release request for vulnerable inmates who were at high-risk of COVID-19 such as the elderly or those who were held on a pre-trial basis [78]. Despite a state reprieve program, by the end of the year, only a fraction releases were granted — with 99 inmate deaths the result of COVID-19 [36].

When the JOB resumed meetings two months later, they did so over Microsoft Teams livestream broadcast. Advocates were concerned, even offering tech-support to improve the participation of Board meetings. With webinar-style gatherings, there was no longer the opportunity to respond to statements made by jail staff. One interviewee we spoke with highlighted claims presented by jail staff that advocates wished to respond to directly during the meeting but were unable to do so. Many of these claims were public health related, with advocates calling out inadequate staffing or unqualified support [39]. Our interviewee described how increased levels of control during remote public meetings impeded participants' ability to respond to the information presented by representatives from the jail. This echoed a general concern from interviewees that prior tactics of disruption and public witnessing were diluted with the move to remote meetings. One interviewee described the experience, as both an advocate and a Documenter:

> *"[B]efore, people could really pack the room. And they could have these visual representations of what it was that they were there for, whether it's all the same shirts or signs [...]. they would all stand up and start shouting at the same time and then be escorted out by security. And that was like a show of force, and then people would do it again. Now there's no way to disrupt a public meeting, like there just isn't, unless you're like Zoom-bombing it for some awful reason."*

In June 2020, the JOB began only accepting written comment in advance of meetings — the reading of which occurred only rarely. Members of the JOB instead chose to aggregate comments, summarizing and issuing blanket responses. The Board justified this treatment because they felt the volume of comments they received was too high to read in its original phrasing or address during meetings. By quantifying and categorizing public comments, the JOB effectively datafied

individual testimony. One April 2021 commenter expressed their frustration that the power to advocate for affected community members was being stripped away:

> *"It feels as though it would be better to allow community members to make their comments themselves. This way, the JOB can hear directly from the people whose loved ones are trapped in [the jail]. This would also eliminate the issue of paraphrasing. [The judge] does not always read the entire comment, which can completely diminish its power"* [81].

Here, there is a clear difference between the JOB's impression of due diligence and the frustrations of the community. The power of allowing "the people whose loved ones are trapped in [the jail]" to directly voice their stories and concerns is one related to power of counter-storytelling, particularly the accounts of incarcerated individuals or workers in the jail who experience life and death crises brought about by structural oppressions. By deciding to group these comments together, the JOB reduced each experience into a single category of their own choosing.

The concerns of the above comment reflect a broader issue on voices were being "diminished." An interviewee with the PA Prison Society described a contradiction between the Jail Oversight Board's mandate to investigate the jails and the fact that the jail management themselves appeared to have the greatest input in the process, not inmates or their friends and loved ones: *"When we have meetings, [the warden] speaks the longest and speaks on behalf of the program that contracts with the jail. That's not a COVID problem, that has been happening ever since the board was established."*

Speaking to pre- and post- pandemic concerns with the jail, another commenter spoke to the 2019 removal of transgender advocates as driven by a need for oversight: *"People providing comment at the oversight board meeting possibly would not have become as "loud or unruly" if they were informed that the JOB conducted its own independent investigation of the problem"* [*ibid*]. They painted the agitation of activists at board meetings as responding to the oversight board's overreliance on the jail for information, despite serious allegations of harm and risk. In the context of the COVID-19 pandemic, the same commenter raised a parallel concern: *"When the Warden announced that there were no COVID cases among people incarcerated but there were 10 cases among staff, did the board contact medical to assess whether there were medical complaints of COVID like symptoms from people incarcerated?"* These concerns paint the antagonistic relationship between the JOB and its attendees as attributable to the prioritization of expertise from the agency that the JOB is mandated to oversee. According to interviewees, by deprioritizing the accounts of the incarcerated or of concerned staff, the Jail Oversight Board failed to function as an oversight institution during a time of deadly infection in carceral institutions.

5.3 Local Insights on Datafication

The Jail Oversight Board's abstraction of community engagement occurred by summarizing public sentiment, relaying general topics from unstructured comments. This was not necessarily done with the intention of employing "data-based" approaches, but other modes of engagement leverage such techniques in the name of scale. Online surveys, for example, are often employed in conjunction with an engagement web platform or portal. Through our fieldwork, we witnessed how the COVID-19 pandemic accelerated the deployment of many of these online community engagement portals, websites, and mobile applications to take in resident information and feedback. In an interview with a community advocacy representative who partnered with the city, we learned pre-pandemic in-person engagement plans were scrapped as rates rose and use of the portals grew extensively.

We interviewed one public employee who helped launch a city-wide portal in Pittsburgh and explained the rationale as centered on soliciting a wider net of engagement, beyond the capacities of the government or decision-making bodies to gather input in person. For these deployments, the need for scale appealed to a sense of representativeness, both in the statistical sense and

democratic sense of voting. However, the use and transparency of datafied engagement in decision-making varied widely. The public release of survey results or comments occurred in some cases in Chicago [22], but none of our interviewees knew where to find them.

In the region surrounding Pittsburgh, at least four different portals were deployed to assist with the public engagement process. The Engage Pittsburgh portal launched August 2020 as a part of recommendations from the City's Public Engagement Guide prior to the pandemic. In a press release, the city described the motivations and promises of the portal:

> *"The city has traditionally led engagement activities in person, though those can bring challenges due to accessibility or timing. Our goal is to have more citizens engage in projects by having Engage PGH work in coordination with in-person activities. In addition, input received will be shared after engagement activities close to increase transparency"* [2].

The portal includes a login feature that collects demographic information, web accessibility features, and a wide suite of translation tools. Departments submit their projects to an Engage Pittsburgh lead, who posts their issue with any updates submitted by the department, along with any solicitations for public comment. Displayed on the page are the names and contacts of the department staff accountable to the project, to which the directed feedback is sent. Different types of feedback are enabled - some of which resemble social media-style posts with upvoting or downvoting. Others resemble more traditional survey forms, though results are not visible on the site.

The City of Pittsburgh engineered two new public engagement projects as of 2020, both of which involved Engage Pittsburgh. In the vignette below, we discuss one such project focused on the City's operating budget. The process and outcome for which illustrates the degree to which public input is still largely dependent on the intentions of the agency administering it, as well as the difficulty of determining the role of quantified participation in decision making processes.

5.3.1 Opaque Data Practices in City Budget

The City of Pittsburgh, like many other major municipalities during the summer of 2020, faced intense public scrutiny regarding its operating budget, particularly the police department funding. Typically, the City's operating budget engagement process opens in the fall with a one-way educational forum explaining revenue sources and expenditure categories. In 2020, many residents attended the forum hoping to provide input on the budget process. However, it appeared incidental that attendees were given a chance to speak, as City representatives prepared to close the meeting after their presentation. In the meeting's chat, a resident asked to be given a chance to voice their concerns on the budget, and the City employees allowed a few comments and responses in return.

Shortly after the forum, the City deployed a budget survey for the first time, following other major cities such Chicago [20], Detroit [79], Seattle [47]. Hosted on the Engage portal, the Operating Budget survey included general questions about whether to raise taxes or fees, and to indicate which departments and programs should see changes to their funding. The twenty-question survey remained open until October 2020, and according to the Office of Management and Budget (OMB), its results were analyzed and presented to the Mayor's Office and Department Directors for consideration [85]. The survey coincided with a separate component of the City's public feedback process, an interactive budgeting tool called "Balancing Act" which invited residents to enter values themselves. However, several members of the public complained on social media that while all the budget values were adjustable, only the Department of Public Safety, which oversees the Pittsburgh Bureau of Police, was not given an option to cut its budget. Not only was having two separate surveys an unclear method of soliciting public input, they contended, but it was also unclear how the answers would affect the eventual proposed budget.

In other cases of datafication, the design of the survey illuminated important insights for establishing public opinion. One Chicago Documenter described the use of a survey to determine whether police should continue to have a presence at Chicago Public Schools. The results came

back neutral or in favor of police in schools. However, when a journalist accessed the survey results, they found that the majority of respondents were white [17]. With police interactions largely negatively impacting Black youth, the racial makeup of respondents should have been a factor in considering the results of this survey.

Back in Pittsburgh, Mayor Bill Peduto presented his proposed 2021 Operating Budget in November 2020. The mayor's proposed budget included no tax increases, while reducing funding to most departments by around 10%. There was no mention of the results from the Engage survey, and as of the time of writing the results are not public. In the final opportunity for public comment at the Pittsburgh City Council Public Hearing the next month, 45 residents made public comments strongly criticizing the timing of the hearings at 10am on a Tuesday and voicing disappointment that the budget did not represent a 50% cut to the police budget, which had been a recurring ask of the Council over the summer. Ultimately, it is completely unclear whether the results of the budgeting survey or tool were considered in the decision-making process — at the very least, a failure of communication, and, at worst, a diversion strategy.

5.4 People-Led Contention

As discussed across the above vignettes, traditional tactics for expressing public will in the space of public meetings were greatly altered by the move to remote platforms and online portals. In our interview with reporters, a consistent challenge brought about by the move to virtual was the inability to establish long-term relationships with their sources in the community. This relationship building is important for establishing context to claims and concerns brought up in contentious politics.

However, across our field work, we also witnessed advocacy organizations continue to organize and rally around public meetings, issuing calls to action and contextualizing issues and their talking points. Oftentimes, advocacy groups were the ones doing the work of disseminating information on meetings, as well as working with members of the public to manage the logistics of access such as deadlines for sign up and instructions for public comment, as well as how to gain access to the varied virtual meeting platforms. We drew upon interview insights to understand how impacted community members and activists developed hybrid forms of disruption. For example, in the case of Chicago Public Schools (mentioned in the previous section), youth testimony on their vulnerability under policing played a powerful disruptive role outside a board member's home during a board vote on whether to continue to allow police presence in schools. In the next section, we draw upon further fieldwork to understand the role of a people's space, the strategy of using the rituals and form of public meeting to instead create emergent narratives and agendas across different coalitions organizing for racial justice.

5.4.1 Setting the agenda with collective testimony

A public meeting does not need to have government representatives in attendance at all, as stated in McComas' *Theory and Practice of Public Meetings* [52]:

> *"Public meetings can be defined as non-restricted gatherings of three or more people for purposes that include providing information, discussing issues, obtaining information, reviewing projects, evaluating options, developing recommendations, and making decisions."*

In Pittsburgh, the "People's Budget Forum" was one such space that brought together voices, testimony, and agenda from the public after a summer of marching in the streets. The forum was organized by Stop the Station, a multiracial campaign with roots in anti-gentrification organizing that had previously mobilized against the construction of a new police station headquarters. Held on the steps of the City Council, the forum sought to emulate elements of an in-person budget meeting while mobilizing on the streets in the style of a public demonstration.

While Stop the Station extended invitations to all members of the Council (none attended), the forum instead gathered various speakers from advocacy groups in Pittsburgh that had been campaigning the past summer. Addressing empty chairs representing the nine Council members, each speaker said their piece with the agenda and demands starting to blend across different campaigns. Speakers called for taxing a local nonprofit health center, ending a new shuttle project thought to contribute to gentrification, defunding police budgets, or supporting citizen's control over the police. As new speakers took the stage, they began to refer directly to each other's' demands, increasingly seeing them as bound up with their own.

In response to a claim from the Mayor that Stop the Station's efforts to organize against the police station did not speak for the neighborhood, the organization held a canvassing effort that reached over 300 households. The majority of canvassed residents stated that they did not want the new police station in their neighborhood (with 34% in strong support of stopping the police station and another 34% in weak support [68]). An organizer for Stop the Station announced at the forum, "These people think they can speak for us without actually speaking to us… they say 'It's just a small crowd of angry people and it's not representative.'"

Building on the momentum of Stop the Station, another speaker at the Forum referenced demands made by the Economic Justice Circle, a coalition of fourteen major community groups in the city, for more transparency in the city budget process. The speaker noted that the City's Chief of Staff claimed the budget process was already transparent, referencing "a handful of meetings and interactive budgeting tool." The speaker ended by arguing for "a system that seeks our opinion proactively, like the Stop the Station door knocking canvassing effort."

After the People's Forum, Stop the Station collaborated with five other community organizations to mobilize and prepare the agenda for calling into the City-led Citizen Participation Forums on the budget. The week after the Citizen Participation forum on the budget, the council approved a new amendment that shifted $4.1 million in bond money meant for the proposed shuttle project to instead fund housing programs and infrastructure improvements to the surrounding neighborhood. This outcome was one of two council actions that made interventions on the budget on behalf of resident demands, the other a council proposal that shifted $5 million from Public Safety to a Stop the Violence fund. Though many advocates remain critical of this budget, the community concerns raised during the People's Budget Forum were the only agenda items (outside of the Council's) that visibly influenced the budget.

Importantly, the coalition brought together a number of organizing affiliates whose collaborative work later grew to achieve direct electoral and referendum wins. The Alliance for Police Accountability (APA) mobilized a wide range of justice organizations in the region to gather over 20,000 signatures on two different ballot measures on ending solitary confinement in jails and ending the use of no-knock warrants for police [86]. These ballot measures bypassed the traditional legislative process by directly amending municipal charters and passed in the city's 2021 primary elections [74]. In this example, we see how shared agenda-setting echoes more radical forms of democracy set outside the authority of the state and coalition building marks a crucial stage for communities aiming to disrupt narratives set by decision-makers. It is in bearing witness to the ripple effects of this assembled "people's space" that we recognize that the work of building collectivity creates longevity in processes of withdrawing from existing power relationships and homing in on opportunities for social change.

6 DISCUSSION

Like many other transitions to remote technology during the pandemic, it is worth understanding how the shift to computer-mediated public meetings has altered social and political relationships. Many sites of remote access, such as the workplace or classroom, have explored shifts in productivity [10,77], accessibility [23], as well as the effects of isolation [1]and disproportionate impacts on resource-constrained communities [48]. Certain lessons of accessibility carry over to

virtual public meetings, such as a reduction of class or disability barriers with virtual access, and different norms of technology transition for infrastructure-scarce regions.

What we understand in the shift to remote public meetings, however, has additional significance for understanding the impact of computer-mediated platforms on the collective ability of marginalized groups to transgress status quo procedures of institutional decision-making. This context is especially relevant amid the eruption of protests and calls for racial justice during the COVID-19 pandemic. The demands for change in the wake of George Floyd's death at the hands of police officers echo the wave of Black Lives Matter (BLM) protests after Michael Brown's shooting in 2014. Though widespread action occurred on the streets, activists seeking structural change found themselves unable to present in public meetings, where disruption formerly served as a key negotiating tool to make their claims known to decision makers and the broader public. Though some forms of access were eventually granted in the form of virtual platforms or datafied civic engagement portals, the disruptive power of collective, embodied presence was diminished, particularly in platforms that reduced interaction between government officials and members of the public.

In focusing on shifts to disruptive politics in response to the use the virtual platforms and the datafication of civic engagement, we call attention to the importance of supporting the sharing of counter-narratives in the face of structural injustices, as well as the role of computing in reinforcing power inequalities within public meeting spaces.

6.1 Access, Engagement, and Structured Forms of Public Input

Across our interviews and observations, we saw how the forms of access granted to the public via virtual engagement—even under the guarantees of legal structures—were tenuous and temporary, even if they did lower barriers around physical access, commute, and conflicts of work or childcare. The appearance of construction workers at a labor board meeting or lengthy hours-long public meetings on issues of racial justice suggest that virtual engagement does indeed open a level of access to those without privileges of flexible work scheduling or ease of mobility. Yet, with this access, the digital tools used in virtual engagement also created greater mechanisms for exclusion and control. The disruptive possibilities of the public in virtual (as opposed to physical) space diminished with platforms set up to accommodate different degrees of interaction, from full video capabilities to audio- or chat-only participation. These functions of interactivity connected to different degrees of presence, with written comments being boiled down in aggregation, the dismissal of concerns voiced, and some attendees being kicked out of the meeting space altogether. As discussed by Jail Oversight Board advocates, when the testimony of the public is no longer provided in full, it "can completely diminish its power." The power of this testimony is therefore not simply informational, or necessarily oriented toward shifting immediate decisions. Rather, testimony in the form of public comment is an important form of counter-storytelling that surfaces the realities and experiences of those who give voice to resistance against systems of oppression.

Datafication in civic engagement also accelerated as a form of pandemic-driven access. Calling back to McMillan's analysis of data's role in reinforcing current power structures and Offenhuber's dual forms of legibility, this form of datafication largely worked to increase legibility from above by re-inscribing categories of identity under state terms while erasing other collective identities and lived experience. Furthermore, in employing datafication in lieu of live comment, datafication subsumed the possibilities for personal testimony and counter-stories from those experiencing oppression. This was the root of the critiques of the Jail Oversight Board's aggregation or paraphrasing of public comment, where the voices of incarcerated individuals and their loved ones were cut out of the public meeting deliberation space. Though scholarship on digital civics has contended with the use of data and its role in reinforcing power, there is a need to connect the critiques of solutionism and civic engagement to the effects of datafication on

contention and voice. Without such attention, as noted by Monno and Khakee [56], datafied civic engagement techniques threaten to reinforce co-optive measures or tokenize participation.

6.2 Prefigurative and Emergent Spaces

The work of mobilization and disruption has a prefigurative and emergent component in people-driven public meetings [3,11]. In Chicago, youth organizers found a successful workaround tactic of disruption to voice their concern on the issue of police presence in their schools. Likewise, the work of the people's spaces created the possibility for the "creation of counter-publics as safe spaces where alternative identities [could] be created," an important aspect to transformative democracy [46]. By bypassing the constraints of existing political forums (limited by time limited testimony and virtual format) they directly established a people's agenda for continued collective disruption via a coalition of activists working across different issues of structural injustice. This reflects Asad's call for design researchers to support activists in building prefigurative spaces to realize collective agenda toward radical change [45].

When engaging questions on designing for civic engagement, we call for designers and technologists to consider strategies of disruptive testimony and counter-storytelling. We apply a lens of Critical Race Theory to the realm of digital civics, acknowledging conditions of racial injustice within the legal and technical systems governing public process [62]. We further draw upon Bennett et al.'s use of counter-storytelling in disability justice to understand the role of coalition building and the recognition of shared struggles [7]. We call attention to public meetings as a space for disruptive testimony, highlighting lived experiences of racialized oppression and opening up new political agenda in spite of the status-quo. In the example of people's spaces described above, these emergent entanglements sprung from the same ritual and form of public meeting, but with a prefigurative agenda focused on social justice. On the one hand, counter-storytelling orients storytellers to the local governing bodies, making legible the lived experiences of institutional oppression. On the other, the collective act of counter-storytelling also orients tellers within a larger whole, making legible from below shared contentions, needs, and conditions of oppression. We argue that the role of computing in civic engagement should not be structured around strengthening representative-focused deliberative democratic processes, but rather in amplifying spaces of possibility for the political claims of those oppressed by current systems of power.

6.3 Disruptive Testimony in Collaborative Systems

In many ways, these computer-mediated public forums evoke Machin's statement that, "what is often implied by the deliberative model is that democracy occurs in a disembodied public realm, where individuals think and speak as ethereal ghosts" [46]. A statement on whether computer-mediated public meetings facilitate or hinder opportunities for social change becomes clearer when we ask, "Who are those served by the 'disembodied public realm' of deliberative democracy?" There is no denying that while virtual public spaces were being rolled out broadly, a wave of collective action in the form of mass protests flooded the streets during the summer of 2020. If disruption found footing on asphalt, does it matter that computer-mediated public meetings foreclosed participation? As we explored in our final vignettes, these reclaimed public spaces were formative to building collective agenda and voicing testimony. At the same time, the preservation of status quo public meeting space - free of disruption - calcified same power structures that worked against the claims of the marginalized. When the Jail Oversight Board, for example, chose to move its meetings to livestream and close public comment, the material conditions facing those under pretrial incarceration did not shift (rather, worsened under the pandemic), but the power of their voices were given short shrift in the form of written comment and aggregation.

Given a continued interest in datafication among government agencies and the acceleration digitization of civic engagement under COVID-19, we bring forth three sensitizing questions for public officials, designers, and technologists to consider as they seek to develop or deploy tech interventions for democratic engagement.

1) *What constitutes meaningful access, and for whom is access meaningful?* Decolonial critiques of deliberative democracy draw out the difficulty marginalized groups face in defending life and liberty in the setting of rational debate [5]. When institutions produce motivated ignorance and dismiss calls for accountability, one form of action for communities is to respond with counter-storytelling. However, when access is exclusionary or elusive, disruptive testimony in virtual public meetings becomes a challenge.
2) *Do platform conventions extend existing power dynamics?* Within virtual space, the embodied possibilities of physical spaces to challenge power structures are replaced with controlled channels of interaction, governed by official and unofficial measures of decorum and relevancy. Participation is filtered through the feature choices of government officials overseeing remote platforms. Removing video, taking count of comments, or administering surveys each limits the affective power of disruptive testimony, itself so bound up with the lived experience.
3) *Beyond just inclusion, how might public spaces be made malleable for disruption?* Status quo power structures rely on the acquiescence of those experiencing oppression. In cases of disruption, this script is shattered. For digital civics, DiSalvo and Asad call on designers to embrace agonism and contention, rather than simply inclusion in democratic process. Building on such calls, we argue for the need to build in room for collective agenda-setting and disruptive testimony that might impel others to act in the interest of creating more socially just worlds.

These questions serve as a starting point for reorienting the design of civic technologies, including existing digital platforms and portals, data collection, and algorithmic tools. They invite further interrogation of not only how computer-mediated platforms impact the ability of marginalized groups to disrupt in times of crisis, but also how they may obscure the needs of residents in the administration of government services more broadly — during the pandemic, and long after.

7 CONCLUSION

In this paper, we account for an accelerated uptake of remote platforms by city officials administering public meetings amid the COVID-19 pandemic. Our analysis considers how such systems were introduced, and affected existing modes of public consultation. Despite shifting platforms and reductive digital features, we learned of a range of strategies residents took up to have their voices heard and concerns met during a time of compounding crises (e.g., pandemic, economic recession, racial violence). Building on these observations, we outline the concept of disruptive testimony, forms of public witnessing that trouble established hierarchies of power, surface conflict, and open opportunities for social change.

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