

# Whose Video?: Surveying Implications for Participants' Engagement in Video Recording Practices in Ethnographic Research

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**Abstract:** This symposium builds on the argument for viewing *video recording as theory* (Hall, 2000) by focusing on instances when participants intentionally engage with ongoing recording, move/interact with recording equipment, and (re)purpose video records. All four papers use example interactions to highlight how participants reorient data collection and use, reorganizing control over how their stories are recorded, shared, and analyzed in the future; we argue that these moves are attempts to further relationship building, countering the surveillance technologies cameras have become (Vossoughi & Escude, 2016). We discuss the methodological implications for future research, asking video recording as *whose* theory?

## Symposium envelope

Twenty years ago, Hall (2000) outlined the need to think about “video recording as theory,” problematizing the selection of what is (not) recorded and describing how production values shape recording processes. Relatedly, Goldman’s (2007) *perspectivity framework* challenged learning scientists to attend carefully to the perspectives of participants, inspire “participants in the study to create their video representations” (p. 32), and overall, avoid the tendency to treat participants as “end-users of products rather than as creators of knowledge” (p. 34). These methodological contributions extend Ochs’ (1978) earlier argument that researchers should notice the theoretical work of transcription, including assumptions about sequentiality, power, and multimodality in social interaction. Perhaps now more than ever, these issues are central. Video recording is more ubiquitous in our lives than it was at the turn of the century. Most of us -- adults and children -- have complex video recording and sharing technology in our pockets and backpacks; recording video and sharing publicly is now an almost world-wide practice. The rapid change in video recording technologies, high quality image processing, and remote accessibility have drastically changed the possibilities of video recording as an everyday *and* research practice. Not only has this impacted the ways learning scientists use video recording, but also how participants engage with ethnographic practices of video recording in fieldwork.

Over the past 20 years, more methodological implications of video recording have surfaced, including suggested protocols and processes (Derry, et al., 2010), tensions between research and surveillance (Vossoughi & Escude, 2016; de Freitas, 2015), and radical possibilities for engaging with participants’ perspectives (Pink, 2015; Goldman-Segal, 1995). As video camera technologies have gotten smaller, some have even focused on the possibilities of using wearable cameras to generate new perspectives on social interaction, including first-person (Pink, 2015; Umphress & Sherin, 2015) and other body-mounted perspectives (where cameras don’t necessarily face the same direction as the participant) (Taylor, Silvis & Bell, 2018; Shapiro, Hall, & Owens, 2017). Collectively, these technological changes expand our understanding of what it means to involve participants in the video recording process, to represent interaction from video, and to honor research ethics.

Video recording is laden with researcher-researched power dynamics which are further intertwined with the power dynamics of the learning spaces we study. Vossoughi & Escude (2016) describe the use of video methods to analyze learning environments as an ongoing engagement with the tensions of surveillance and evaluation. For them, easing such tensions means continually building trust in the researched space and listening to the vulnerability of participants as subjects of the camera’s gaze. Taylor, Silvis, & Bell (2018) argue that participants who used video recording equipment perceived the camera as having “agency and a *powered* gaze on the activities and the participants themselves,” (p. 459).

How Learning Sciences researchers engage with video recordings and view the nature of their representations of lived experience matters for the types of analyses they can create (Nemirovsky, et al., 2018). Pink reframes first person perspective recordings from accounts ‘captured’ to traces of human movement through the world that help us “consider how the types of knowledge we might be able to produce change and shift in

relation to where we are positioned as researchers/viewers in the ethnographic place/world” (p.251). De Freitas (2015) argues that video recording is a new re-presentation of the human body (and its contexts).

Derry and colleagues (2010) encouraged researchers to select video for analysis where “video segments represent events,” (p.7). This implies a relationship between the researcher and participants where the researcher records, and then goes someplace else to select and analyze the recorded data. We see in this symposium that research participants are eager to disrupt this assumption of capture-and-leave, reinterpreting the aims of the researcher through their own engagement with the recording equipment to have some power in the stories later analyzed. Papers in this symposium explore moments where participants engage with the gaze of the camera to re-inscribe a new vision of themselves, their bodies, their perceptions, and their methodological implications. This not only challenges who has power over the story told, but also resists the assumption that the video recording is a neutral record to be analyzed in any other space. As media production has become more of an everyday phenomenon (using social media and other services with high speed internet), we need to continue to theorize about how participants engage with video recording.

The purpose of this methodology-focused symposium is to explore moments of research participants’ intentional engagement with (or takeover of) active recording equipment. Such forms of knowledge production are often unanticipated or outside of the research design and surface ethical, and epistemological, issues that are part of the video recording and analytic processes. Jordan and Henderson (1995) make the case for analyzing recorded interaction with multiple analysts, for multiple perspectives. To this end, this symposium also takes up the question of the analytic choices that occur *after* the recording is complete (Goldman, 2007; Hall, 2000).

Research in the Learning Sciences is inundated with video and audio recordings as data. As scholars who do that kind of work, the authors in this symposium believe video data are gifts from participants to be treated with care (Vossoughi, 2019). Further, the presence of a camera not only changes the social space being recorded, but also becomes part of the space itself. Scholars from five different research projects (See *Settings* below), which primarily rely on video-based methods, collaborate on the four papers. Paper 1, working with two different settings (1 & 2), analyzes how participants directly addressed the camera to speak to future viewers or analysts. Paper 2 uses episodes from two settings (3 & 1) to ask how the emergence of wearable cameras changes the relationships between participant and video recording. Paper 3 presents the design and implementation of a participatory video method that may expand analytical perspectives and challenge power asymmetries between the researcher and participants in ethnographic research. Paper 4 explores how participants in two different settings shared existing practices for recording performances and how they reappropriated researcher-recorded video data for new purposes. We acknowledge that the categories, as foci of the papers, are not distinct but deeply interrelated with specific instances of participant engagement possibly serving as examples of more than one category.

Across all four papers, this symposium foregrounds questions about who is and who should be involved in the recording process, as well as when we should or should not record. Writing about video recording as ethnographic practice, Vossoughi & Escude (2016) argue that “*changing the stance of inquiry from surveillance to relationship (Erickson 1996) is an ongoing and contingent practice that involves pedagogical, political, and ethical choices on the part of researchers and educators.*” Vossoughi and Hall, two prominent scholars in using video recording for research, join as co-discussants to reflect on the landscape that the papers in this symposium address and to describe future implications for the field. The symposium highlights the ways video research participants engage in methodological and analytic choices even when researchers neither design for it nor explicitly ask them to participate in such ways. In other words, we are asking: video recording as *whose* theory?

## Setting descriptions

*Setting 1: Turing Robotics (Colin Hennessy Elliott).* Data for this project comes from a three-year digital video ethnography (Goldman-Segall, 1998) with Turing robotics (TR) (1) focused on exploring how learning unfolded during team practice. TR is an after-school robotics team located in a midsized northeastern city. Video clips are drawn from video and audio data generated during team practice recorded in an emergent fashion, focusing on where activity was happening and learning unfolding across the large, ever-changing, material landscape of the team’s workshop. I (Colin) generated data using moveable recording equipment including GoPros, handheld cameras, and recording microphones.

*Setting 2: Debugging Failure (David DeLiema).* The data analyzed in this session come from a design-research partnership between educational researchers and computer-science instructors at non-profit, weekend/summer computer science workshops (8- and 10-day sessions, 9am-4pm) for late elementary through early high school students (DeLiema et al., 2019). Students learned to program in Javascript in a number of project-based settings (Lego Mindstorms, Minecraft, PixelBots, OpenProcessing). The research team recorded classroom interaction with laptop screen recordings and GoPro cameras. The goal of the research project is to understand how students learn to debug code within the context of social interaction with peers and instructors.

*Setting 3: Digital Studio (Sarah Radke).* Data comes from a larger study of mathematical learning pathways (Ma & Kelton, 2017) at an after-school program we call Digital Studio (DS), an interest-driven, elective afterschool program for high school students in a large urban city in the Northeast. Two different groups of 12-16 students, led by adult facilitators, met four days each week for three hours each afternoon for 14 weeks. In each group, students negotiated a social issue, tied to one or more personal stories of group members, about which they researched and produced a documentary film. DS was committed to supporting underserved youth via learning in the areas of documentary film production, critical literacy, and civic engagement. Analysis shared in paper 3 is drawn from video and audio data produced by DS participants both as part of and outside of the research design.

*Setting 4: Families and Media Engagement (Deborah Silvis)* Data for this study comes from an ethnographic study designed to examine how technology and digital media were reconfiguring family life and learning at home. Participating children were between the ages of nine and twelve years old and lived in two separate US cities. Because we were particularly interested in how mobile technologies like smartphones, tablets, and laptops were transforming everyday routines, we asked participants to wear GoPro cameras during their “daily media rounds” (Taylor, Tacheuchi & Stevens, 2017). Supplementing researcher-collected video, ten of eighteen participants collected approximately fifty hours of GoPro footage. Notably, not all children consented to use GoPros.

*Setting 5: Novel Tectonics (Lauren Vogelstein)* Data for this project comes from a two-year ethnographic study of professional dancers to better understand how dancers use coordinated ensemble, full body movements as a method of inquiry that enables them to explore their unknown expressive potential together. The artistic director and professional dancers in Novel Tectonics referred to their practice as “physical research,” and the space they created together as a laboratory. Cameras were placed around the rehearsal studios; after dances became more comfortable, the researcher would also hold a camera and position herself closer to the dancers as they worked. Additionally, dancers made their own recordings of rehearsals that they used for reference and sporadically.

## **Paper 1: Engaging with the future: Why and when participants animate the researcher through utterances directed at the recording equipment**

Colin Hennessy Elliott and David DeLiema

Characters in modern YouTube, social media, and even television/film landscapes directly address the camera on a regular basis. They break the fourth wall during ongoing activity (e.g., the tragicomedy *Fleabag*), engage in “confessionals” in a removed setting (e.g., reality TV programming), and look and speak directly to the camera/person-behind-the-camera as if in dialogue (e.g., a YouTuber, fictional mockumentaries like *The Office*). These talk moves, which are directed squarely at the audience, flesh out the experiences of the individuals/characters in the scene. In a similar way, youth participants in studies that involve video recordings engage directly with the camera. This paper explores the implications of instances in which participants interact with the camera in this way, incorporating it into their activity and commenting on the researcher’s future analysis, to reorganize meaning (Villegas, Larkin, Becker, Gutiérrez, 2018). We use two examples to illustrate this type of interaction: 1) Turing High Robotics Team practice (Setting 1), and 2) an informal computer science workshop (Setting 2).

The first example centers on two interactions for one youth participant across a week of TR practice. First, a GoPro headcam records activity as Lorenzo participates in fabricating a piece for the robot with two other more knowledgeable participating youth, Bob and Jav (team captain). Just after cutting holes in a bracket with a large milling machine, the camera focuses on Bob cleaning the cut edges of the finished piece. Lorenzo jokingly starts saying what seem like random arithmetic calculations, eventually getting to, “... which gives you one. One is the basis of everything. Or is it zero. As in it’s the origin to everything.” Bob, still working, giggles and scoffs with “what?” then looks directly at the GoPro on Lorenzo’s head and whispers loudly, “sorry Elliott [the researcher].” Lorenzo responds with “for what?” Bob starts to say something about him, but is cut off by Lorenzo “utter nonsense,” to which Bobs agrees (“Yes”) and moves on. A week later, Lorenzo joins the two team programmers as they work on learning a new programming language for the robot. A handheld camera was set up to see over the shoulder of the two programmers as they worked on one computer. Not too long after joining, Lorenzo makes a joke and all three laughed deeply. As the laughs subside one of the programmers looks up at the camera. Lorenzo does as well, apologizing to future researcher, “Sorry Elliott. I know this isn’t what you thought I would be doing in robotics.” The three of them laugh again. In both interactions, Bob and Lorenzo indicate that they know the camera is recording and playfully engage with the future stories it can tell. Also in both, the apology is a repair move. Playing with representations across space and time, they are laminating (Goodwin, 2017) their own assessment of their practice from their present-space into a future-space of research analysis, learning

evaluation, and their stories.

A second example, from the Debugging Failure project (Setting 2), documents how a table of students gradually challenged the presence of the camera, making it more visible and positioning it as power-laden. The focal sixth-grade student, Zoa, initially decorated the GoPro nearest her with a small hat made out of a sticky note. While looking toward a researcher in the back of the room taking field notes, she announced, “It’s a party hat!” The researcher laughed and went back to taking field notes. Zoa then created an origami bird at the request of her classmate, who used it to decorate the GoPro nearest him, and Zoa later joked about creating “a weird hat so this GoPro’s covered,” momentarily folding her entire coding journal over the camera. The move to block the camera’s visibility was extended later when she teased a peer that the camera would catch his off-task behavior (“that guy even saw it,” pointing to the camera, followed by a laugh and a “Hiiii!” to the camera). Zoa then asked her neighbor if the camera would survive if placed in water, deciding: “Oh right, we need the waterproof one.”

This backdrop gradually brought the camera into play in the setting, which provides important context for the following moment. Instead of covering the camera or challenging its purpose, Zoa shows the camera her code. After working to debug a broken sequence of commands between two function calls (the programmed PixelBot had doubled back on itself instead of turning right), the student decides, “I’m gonna have the GoPro watch this awesomeness,” lifting up her laptop and holding it directly in front of the camera. However, her proposed fix does not work. The PixelBot doubles back on itself in the same way as before. The act of showing the GoPro drew in a neighbor who noticed right away that something was wrong: “Oh whoa: what are you doo::in.” Zoa responded: “Noooo, what did I do::?” They each examine the code. The neighbor proposes a fix, Zoa steps through her code, and they make a pun about the correct fix, that two *right* turns were *right/correct* (“right right -- that’s right”). Overall, this analysis begins to show how the participants incorporated the camera into their activity (“It’s a party hat!”), framed it as an authoritative viewpoint (the camera “saw it”), joked about its safety, and then intentionally showed it what was intended to be a programming accomplishment (“watch this awesomeness”).

Showing the GoPro “awesomeness” and apologizing for capturing footage that is not “what [the researcher] is looking for,” both surface tensions in video recording practice between *what the participants believe the researcher would like to see*, *what the participants end up doing*, and how participants *account for what they consider deviations*. Overall, these examples document participants speaking directly to the camera and formulating judgments about the value of their actions. These moves perhaps reflect participants aiming to extend their impact on the researcher-participant relationship into locations and points in time where they will no longer be present. Further, these moves complicate the notion of video recording as surveillance, evidenced by participants in both examples framing their “successes” and “failures” (Example 2) and their recognition of “nonsense” (Example 1) with playful laughter or sarcasm. By publicly judging, and subverting, what the camera and researcher “want,” participants use a resource in the setting, the camera itself, to speak directly to the researcher. The camera’s complicated presence, especially as a viewpoint that can both *bear witness* to successful practice (coding or robotics work) and require *accountability* following deviations, suggests that further analytical attention should be given to data collection that is less a passive process than an active ingredient in social interaction.

## **Paper 2: When participants wear the camera: The trade-off between generating a different perspective and getting in the way**

Deborah Silvis and Colin Hennessy Elliott

Research on learning increasingly employs small, wearable action cameras for data capture. Devices like the widely used GoPro Hero camera have been used to study learning on-the-move (Taylor & Hall, 2013), to privilege a first-person perspective on learning (Umphress & Sherin, 2015), or to compliment the researcher’s view of learning within a dynamic setting (Marin & Bang, 2015). As the previous papers make clear, the people who wear these cameras are often young children and youth. This paper considers the different ways in which young people treat cameras as wearable devices for researching (with) them. We draw on ethnographic data collected in two settings (3 & 1), one a study of families learning together at home and the second a high school robotics team. We examine ethical and epistemological issues entailed by wearable cameras. Based on how children and youth treat GoPros in research, building bodies of video data on the bodies of participants, particularly young children and high school aged youth, is always theory laden and sometimes ethically fraught.

Two separate cases, drawn from Setting 3, a study of children in the home, illustrate very different ways of treating GoPros for video data capture; each case involves a pair of siblings. Of the four total children, only one chose to wear a GoPro on the body. Oliver wore a GoPro mounted on his head while he played Pokemon Go around his neighborhood. He complained that the camera was hard to wear and made it equally hard to catch

Pokemon. On the other hand, his younger brother Felix was eager to use the camera's smartphone app to control Oliver's head camera remotely. While for Felix, the camera offered a new sense of control over his brother's gaming, for Oliver, gaming was encumbered by the heavy, floppy camera on his head. A second set of siblings, twin brothers Oscar and Eddie, disagreed about whether wearing GoPros was a good idea. Eddie nonchalantly wore the GoPro on a chest mount while he played video games on his tablet computer, but Oscar was uneasy about wearing it. Instead, he chose to position it right behind him on the couch where it could capture his video game play just over his shoulder, still from a first-person-perspective, but further removed from the body. Both twins wanted their game play recorded, but for Oscar, the use of a camera on the body was uncomfortable and undesirable.

In Turing Robotics, one case indicates how the GoPro can even get in the way of typical practice. Jay, the captain of the team, agreed to wear a GoPro on his head as he worked on fabricating a steel piece for the robot using a large Mill Press machine made to mill out holes and cuts in metal. From the video data captured, it is clear that wearing the camera is uncomfortable for him. The screen keeps moving drastically as he shifts the camera's positioning. At one point he leans in and out of the plane of the Mill Press setting up the machine for the cut and securing the metal to be milled; leaning in and out, as he usually does, he keeps hitting the camera on the upper part of the machine, and then rearranging it; eventually he says out loud "Sorry Elliott for hitting your fancy schmancy camera." To which, his collaborator goes, "imagine if he doesn't even use this footage." This interaction, and his clear frustration with the recording process, indicate 1) he is still invested in capturing the data as I (the researcher) asked, 2) the camera did not account for his embodied motions required to do the work that the camera was attempting to record.

It is notable that none of the young people in the cases described here identified as white. Today wearable cameras are deployed for their original purpose, outdoor sports and scholarly purposes, like our research, but also for social and political purposes, such as increasing police accountability at a time when black and brown bodies are disproportionately subject to police surveillance, violence, and discrimination. Is it any wonder given this state of governmentality, that youth distrust GoPros, decline consent, or express discomfort when wearing them (Taylor, Silvis & Bell, 2018)? In addition, young people in many of our studies of learning are relating to their changing bodies in ways that devices like GoPros may expose and exacerbate. As we build theories of learning predicated on body-mounted video data, we ought to ask not only for children's consent but for their reasons for wanting to wear cameras or not and their good ideas for recording in other ways. Doing so can help mitigate the ethico-epistemological ramifications of collecting first person perspective video data, bringing attention to the tensions between the data corpus and the corporeal choices on which it rests.

### **Paper 3: Telling their stories: When participants *take on* and *take over* the work**

Sarah Radke

This paper explores the design and use of "video-voice projects" (VVP) as part of a multi-sited, person-centered ethnographic study in Digital Studio (DS; Setting 3). The hierarchical power structures of traditional recording methods often lead to an extraction of participant practices from the researcher point of view, devaluing and erasing participant knowledges. Sara Kindon (2008) describes the typical scenario where, "video technology remains firmly in the hands of the researchers and is used to capture, document, and record the 'reality' of a scene or interaction" (p.146). I align with Kindon by recognizing that in researcher-controlled recordings, reality is one constructed by the researcher, even if trying to center participants' meaning-making. There is a need to reconceptualize video recording as a *co-constructed partnership* between researchers and participants in which the latter has authority to challenge/change these traditions. Through an example case, the paper explores how the VVP method may expand analytical perspectives and challenge power asymmetries between the researcher and participants in ethnographic research by deliberately relinquishing control of both the video equipment and the focus of the recording. This move attempts to de-center the social, political, and cultural perspectives of the researcher (Rosaldo, 1993) and create opportunities for participants to produce video records based on their perspectives of and engagement in daily life.

Over the course of a year and a half, Cai and I spent time together at DS, his home, school, on his commute, and "just hanging out." In addition, he produced two VVPs. In explaining the activity, I proposed that he create a video or set of clips that show "a day in his life." Beyond this, the projects were unstructured - an effort to avoid "interviewer effect" (Wheeler, 2009, p. 14). This orientation to the cameras and the project as a whole was a deliberate attempt to position Cai as an agentive operator of the technology (Vossoughi & Escude, 2016). Late one April afternoon, having found an abandoned skateboard in the park, Cai leisurely glides down the street in the bike lane, as if he has been skating all his life instead of for only a few hours. As he maneuvers around

traffic, he records the pavement and occasionally himself, narrating throughout. At a stop light he turns the camera on to himself, his electric smile gleaming; laughing at me through the lens he yells, “Just Cai out here, livin’ his best life.” What is not clear in the retelling of the excerpt is that “Cai” is his pseudonym. In a conversation a week later, Cai shared that when he found the skateboard in the park “it just dawned on [him] to tell the story of Cai. [His] real life, but as Cai. What would Cai do?” (*Personal Communication, May 21<sup>st</sup>, 2018*).

As a participant, Cai *takes on* both the responsibility of completing the designed task, as he interprets it, and the physical burden of carrying the video tools. However, in the physical absence of the researcher, he transforms our telling of his narrative through the VVP. Relinquishing both the recording equipment and decision-making power to Cai created space (literally and figuratively) for him to record “being Cai” an experience to which researchers would otherwise have no access. Pink (2015) helps us make sense of this video as more than what the viewfinder captures, arguing that instead, “[they] record the trace of the route that was taken through the world, by the person/camera moving together,” (p.245). Cai also *takes over* the research, making it his own. He refocuses both the data collection and the telling of his narrative. His choices highlight the importance of paying attention to not only *what* the participants record, but *how* they decide to record. Goodwin’s (2017) conception of co-operative action, that new action is built by “decomposing and reusing with transformation resources provided by earlier actors” (p.429) provides theoretical insight into this excerpt as a conversation in which Cai speaks back to the study design. If the unfolding research project is co-operative action, then in producing VVPs, Cai took up the task (here a resource designed by the researcher) and transformed it in unanticipated ways. In doing so, he provided new places for the research to move from. In this way, we “[inhabit] each other’s actions.” (p.429). Cai’s choices about who, what, and how to record generate questions about representation of participants in video recording.

When we frame video-making as performance, the transformations participants make are embedded in the representations of who/what they record. These transformations are shaped by goals in negotiation, context(s), social practices, and audiences, and can, in a reflective practice, shape ongoing research design. The importance of VVP is more than its analytic power. The tension between making participants voices heard and rewriting/interpreting their stories in ways that are authentic is embedded in the work of all ethnography. Rather than dismissing this tension, VVPs offer a way to reframe it as a constitutive part of engaging in co-constructed research/participant partnerships.

## **Paper 4: Making use of video for other purposes: When participants use video data as part of their practice**

Lauren Vogelstein and Sarah Radke

This paper explores participants’ use of video recordings for purposes other than the research and analysis planned by the researchers. As stated in this symposium, the ubiquity of high quality, small, and portable recording devices as well as the advent of social media as a way to publicly curate recordings has made the recording and sharing of video easy and common in everyday practices. For this analysis we look across two projects to see how professional dancers (Setting 5) and youth in DS (Setting 3) used videos they recorded themselves as well as videos recorded by researchers for their own practices and in ways not for the intended research directly.

Video recording themselves and watching these recordings was a common part of dancers’ practices in Novel Tectonics. As a sort of summative marker, choreography at long-day and final rehearsals as well as performances were recorded to capture the latest state of a work. These video recordings were viewed by the choreographer as she continued to develop a performance piece and by dancers to remember their roles or to learn a new role they had not yet performed. On one day in particular, two dancers were tasked with reviewing a duet they had not performed in two months in order to prepare to perform it again the following week, a process they referred to as “resetting” the work. Playing a video recording on Caroline’s phone, from the last time they performed this duet, Caroline and Faith worked chronologically through the choreography. In resetting this duet, the dancers demonstrated their professional vision (Goodwin, 1994) by (1) intently watching what was viewable in the video, which was stabilized by naming parts of what was seen and felt which invited (2) remembering things that did not make sense. This eventually lead to (3) reenactments (Vogelstein, Brady, & Hall, 2019; Hall & Vogelstein, 2018) in which there was a physical production of “re,” “member,” and “ing” through which the dancers (4) repeatedly tried out and compared sequences of co-operative action, in which each became object and process for the ensemble. In short, the dancers “inhabit[ed] each other’s actions” (Goodwin, 2018).

DS youth, like the professional dancers, used cameras (their own and researcher equipment) to capture performances. However, unlike the Novel Tectonics dancers, these performances were almost always impromptu and without a set choreography, like when they started dancing on a subway car one afternoon. They were asked by Sarah to record their travels from DS to another location where they had a documentary shoot planned, and as

they started dancing on the subway, they made sure to capture their performance. In another important moment during a break in DS, one youth started dancing in front of the stationary camera. The viewfinder was flipped so that he could see himself as he danced, in this way it acted as a digital-mirror to which he responded while he created a record for Sarah's (the researcher's) future viewing ("I left you some of my moves" (*Fieldnotes*, 11/14/2017)). The instinct to record performances or to even start performing for the camera was present both in the professional practices of the dancers and the video practices of the teens in DS.

While we observed participants recording performances for professional and personal use outside of the intended aims of our research, we also experienced participants asking to use video recorded as data for use in their own work. This was evident in Novel Tectonics during one rehearsal when the artistic director asked a group of dancers to revisit the solo research they had last engaged in about a year prior. Through casual conversation, the researcher surfaced that she had recordings of the dancers sharing their solo material from the previous year. Additionally, engaging in a group viewing session provided dancers with feedback from their colleagues, a resource not commonly engaged with in such a manner. Requesting access to previously recorded video for participant's "non-research" use also occurred in DS when students asked the researcher for video recordings to use in their final portfolio projects in order to "show evidence of [their] learning" (*Fieldnotes*, 1/16/2018). Together Sarah and the youth viewed her data catalog and made choices about what days' recordings might hold the kinds of clips for which they were searching. In this way both the data catalog and the video footage were (re)produced as records that served new purposes.

From a research perspective it is helpful to begin to understand how participants engage in and remix pre-existing practices that involve video recording, as these moments nicely lay the groundwork for understanding how we can view participants reappropriation of data as both benefiting their aims outside of the research and opening up a window for the researcher to better understand their learning. We also see participants' requests and (re)use of video data as evidence of the surveillance to relationship shift in researcher-participant relationships (Erickson, 1996). Additionally, taking participants' (unintended by the researcher) reuse of video seriously, we begin to ask important ethical questions about whose data this is and what it means to engage in relationships with our participants, further theorizing the practices of recording video (Hall, 2000) and expanding different ways to further collaborate with participants as relational practices of trust and care (Vossoughi & Escude, 2016).

## Endnotes

(1) All names across all four papers are pseudonyms

## References

- De Freitas, E. (2016). The moving image in education research: Reassembling the body in classroom video data. *International Journal of Qualitative Studies in Education*, 29, 553-572.
- DeLiema, D., Dahn, M. Flood, V. J., Asuncion, A., Abrahamson, D., Enyedy, N., Steen, F. F. (2020). Debugging as a context for collaborative reflection on problem-solving processes. In E. Manolo (Ed.), *Deeper Learning, Communicative Competence, and Critical Thinking: Innovative, Research-Based Strategies for Development in 21st Century Classrooms* (pp. 209-228). New York: Routledge.
- Derry, S. J., Pea, R. D., Barron, B., Engle, R. A., Erickson, F., Goldman, R., ... & Sherin, B. L. (2010). Conducting video research in the learning sciences: Guidance on selection, analysis, technology, and ethics. *The Journal of the Learning Sciences*, 19, 3-53.
- Erickson, F. (1996). *Talk and social theory: Ecologies of speaking and listening in everyday life*. Cambridge; Malden, MA: Polity Press.
- Goodwin, C. (2017). *Co-operative action*. Cambridge: Cambridge University Press.
- Goldman, R. (1998). Points of viewing children's thinking: A digital ethnographer's journey. Mahwah, N.J: Lawrence Erlbaum.
- Goldman, R. (2007). Video representations and the perspectivity framework: Epistemology, ethnography, evaluation, and ethics. In R. Goldman, R. Pea, B. Barron, & S. J. Derry (Eds.), *Video research in the learning sciences* (pp. 3-38). Mahwah, NJ: Lawrence Erlbaum.
- Hall, R. (2000). Video recording as theory. In D. Lesh & A. Kelley (Eds.) *Handbook of Research Design in Mathematics and Science Education* (pp. 647-664). Mahwah, NJ: Lawrence Erlbaum.
- Hall, R., & Vogelstein L. (2018). Video data and the learning event: Four case studies: How did they do that? Using video-elicited re-enactments to invite ensemble learning in mathematical activity. *International Society of the Learning Sciences, Inc.[ISLS]*.
- Kindon, S. (2003). Participatory video in geographic research: A feminist practice of looking? *AREA – Institute of British Geographers*, 35, 142-153.
- Ma, J. Y., & Kelton, M. L (2017, June) Developing concepts in a study of mathematics learning pathways. Paper presented at the 9th International Conference of Mathematics Education and Society, (MES9). Volos,

Greece.

- Marin, A., & Bang, M. (2018). "Look it, this is how you know:" Family forest walks as a context for knowledge-building about the natural world. *Cognition and Instruction*, 36(2), 89–118.
- Milne, E. J., Mitchell, C., & De Lange, N. (2012). *Handbook of participatory video*. AltaMira Press.
- Nemirovsky, R. Video data and the learning event: Four case studies. In J. Kay & R. Luckin (Eds.), *Rethinking learning in the digital age: Making the learning sciences count*, 13th international conference of the learning sciences (ICLS) 2018, Volume 3 (pp. 1195 – 1202). London: International Society of the Learning Sciences.
- Ochs, E. (1979). Transcription as Theory. In E. Ochs & B. B. Schieffelin (Eds.), *Developmental pragmatics* (pp. 43–72). New York: Academic Press.
- Pink, S. (2015). Going forward through the world: Thinking theoretically about first person perspective digital ethnography. *Integrative Psychological and Behavioral Science*, 49, 239-252.
- Rosaldo, R. (1993). *Culture and truth: The remaking of social analysis*. Boston, MA: Beacon Press.
- Taylor, K. H., Silvis, D., & Bell, A. (2018). Dis-placing place-making: How African-American and immigrant youth realize their rights to the city. *Learning, Media and Technology*, 43(4), 451–468.
- Villegas, K., Larkin, B., Becker, C., & Gutiérrez, K. (2018). breaking the fourth wall of colonial knowledge production: how researched youth reorganize meaning. Presented at the American Education Research Association Annual Conference. April 14<sup>th</sup>, 2018.
- Vogelstein, L., Brady, C., & Hall, R. (2019). Reenacting mathematical concepts found in large-scale dance performance can provide both material and method for ensemble learning. *ZDM*, 51(2), 331-346.
- Vossoughi, S. (2019, May) *Interaction Analysis*. Talk at NSF Workshop: Multimodal Learning Analytics for Interaction Analysis. Evanston, Ill. May 5<sup>th</sup>, 2019.
- Vossoughi, S., & Escudé, M. (2016). What does the camera communicate? An inquiry into the politics and possibilities of video research on learning. *Anthropology & Education Quarterly*, 47(1), 42-58.
- Wheeler, J. (2009). 'The Life That We Don't Want': Using participatory video in researching violence. *IDS Bulletin*,