

Communicating with the masses from isolation: Lessons for the future of hybrid work from the activities of local television journalists during COVID[†]

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Abstract

Intro: In response to the COVID-19 crisis, many local television (TV) newsrooms decided to have employees work from home (WFH) or from the field rather than from the newsroom, creating a kind of hybrid work characterized by flexible work location.

Methods: From a review of research on telework and WFH, we identified possible impacts of WFH on work. Data are drawn from interviews with news directors and journalists and observations of remote work and analyzed through the lens of activity theory.

Results: We found that through creative application of technology, WFH news workers could successfully create a newscast, albeit with some concerns about story quality. However, WFH did not seem to satisfy workers' needs for socialization or learning individually or as a group.

Conclusions: Lifted restrictions on gatherings might mitigate some of the experienced problems, but we expect to see continued challenges to news workers' informal learning in hybrid work settings.

Keywords: Work from home, journalists / news workers, journalism / news work, activity theory

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Practitioner Points

1. In response to COVID-related restrictions, news workers needed to and were able to find ways to work from home or the field, often supported by creative uses of information technology.
2. While the news was successfully reported, news workers working from home suffered from social isolation, though relaxation of restrictions might ameliorate these issues.
3. News workers (particularly less experienced ones) also suffered from a lack of learning by observation or on-the-job training. If work from home becomes the new normal, these issues are likely to continue and need to be addressed.

1. Introduction

This paper reports on a qualitative field study of the implementation of work-from-home (WFH) for journalists. In response to the public health crisis caused by COVID, many (though not all) local television (TV) newsrooms required staff (i.e., reporters, photographers, producers and managers) to work from home or from the field rather than from the newsroom (Casero-Ripollés, 2021; García-Avilés et al., 2022; Santos & Mare, 2021), creating a kind of hybrid work characterized by flexible work location. News interviewees (or “sources”) implemented their own restrictions, for example, not allowing non-employees such as reporters into a workplace, creating further obstacles to reporting a news story.

Our study is based on interviews with ten TV news directors (i.e., the managers of a station’s news department) and observations of eight news workers in one station. We apply activity theory as an overall framework for our study to explore how WFH was managed, the technologies used to support it and how the technologies were applied. We seek to understand the effects that WFH had on work and workers and how workers adapted to this hybrid mode of working.

News work was chosen as a setting for our study because it has several characteristics that make it particularly challenging even in traditional circumstances and that were expected to pose particular challenges for WFH. Chief among these features is that journalists work on strict deadlines, having to finish a story in time for the nightly broadcast or print run. Web publishing can be more flexible, but it does not remove the time-sensitive nature of the work, which has famously shifted to a 24-hour rolling deadline (Molyneux, 2018) with pressure for constant availability (Lukan & Čehovin Zajc, 2022). A consequence of the constant deadline pressure is a lack of time to devote to learning new technologies and new ways of working. News work is stressful also because the news being covered can be personally harrowing (e.g., fires, crashes and shootings in normal times; COVID deaths and restrictions during the pandemic).

Economic factors are also important in understanding how news work is done. Dwindling staff in newsrooms of all types is not directly the effect of the substitution of labor. The majority of US journalists work for for-profit companies, leading to long-standing and ongoing tensions between journalistic values and business interests (Hardt, 1996). In recent years, ownership of US newspapers and TV stations has become increasingly concentrated, leading to a greater focus on the cost of operations. The impact is borne out in research that shows a drop in public-affairs stories in local TV news in favor of fires, crashes and shootings (Slattery et al., 2001) in opposition to journalists' professional desire to cover stories people need to know.

Finally, another important factor is that journalists typically learn a lot on the job from managers and co-workers, through explicit mentoring, informal interaction and legitimate peripheral participation (Cushion, 2007; Guo & Wang, 2022). A graduate from journalism school or other new hires may not be skilled in every task to be performed or tool to be used when they start their job, especially as new tasks emerge alongside technological innovations.

Our findings suggest that despite these challenges, news workers were able to be successful under the conditions of WFH and that information technology played an important role in their responses. Under pressure to adapt, we observed some news stations undergoing a hastened digital transformation of how they worked, developing creative uses of information technologies. However, we also observed impacts on worker well-being and effectiveness from social isolation and issues with enculturation and learning. Despite these challenges, interviewees suggested that WFH may be the “new normal” as at least some workers and many managers expect to retain some aspects of WFH even in the absence of COVID restrictions. Learnings from this study are thus informative for the future of journalistic hybrid work.

2. Literature Review

We start by reviewing three bodies of prior research that inform our study: studies of the impacts of COVID on journalism, studies of telework as an example of hybrid work and a description of activity theory, our chosen analytic framework.

2.1 The Impacts of COVID on News Work and News Workers

First, there has been recent research on the impacts of COVID-driven restrictions on work and workers, and on news work and journalists more specifically. Many studies have noted the stress put on journalists leading to feelings of exhaustion, fatigue and lack of motivation (Arcalas et al., 2022; Backholm & Idås, 2022). This stress was exacerbated by the specific characteristics of news work, such as personal risks from reporting from the front lines of COVID treatments (Casero-Ripollés, 2021), reduced access to sources leading to over-reliance on a few (Santos & Mare, 2021; Tandoc et al., 2022; Velloso, 2022), lost capacity to report already marginalized voices (Santos & Mare, 2021) and challenges to reporting when political actors asserted control of information, for example, by limiting data releases or opportunities to question officials (Casero-Ripollés, 2021;

Tandoc et al., 2022). Interestingly, the stress heightened journalists' awareness of the importance of their role in informing the public and countering the growing spread of misinformation (Casero-Ripollés, 2021; García-Avilés et al., 2022), which even increased job satisfaction (Libert et al., 2021).

Research has described adaptations of news work practices to address the need for social distancing. For instance, Okopnyi et al. (2023) noted that because fewer workers could be present in a newsroom or at an interview, tasks shifted to those remaining, for example, reporters or even interview subjects themselves learning to shoot video because photographers were not available. They suggest that as a result, journalists have to become less specialized. Journalists also reported an increased focus on data-based stories to compensate for the lack of access to sources (Velloso, 2022) or to explain the pandemic, for example, using infographics (García-Avilés et al., 2022; Santos & Mare, 2021).

Other work has documented the role of technology in the response to COVID restrictions. Subires-Mancera (2023) identified the critical importance of the improved technical capability to capture audio and video on consumer devices, such as smartphones or webcams, and of Internet-based video conferencing for interviews and to connect remote journalists to a broadcast. She also noted a growing willingness of journalists and the viewing public to accept lower-quality video as a tradeoff for access. Other researchers noted the increased use of communication technologies to connect and coordinate workers who could no longer be co-present and the need to develop protocols for using these connections (García-Avilés et al., 2022; Okopnyi et al., 2023). Use of such tools is one of the themes of "rapid response" information systems research on COVID (Karanasios, 2022). With these tools, there are even reports of increased contact and coordination with superiors (Tandoc et al., 2022). A limitation though is that there is little or no contact with

colleagues with whom there is no need for regular coordination (García-Avilés et al., 2022). Finally, one study reported increased use of automation to reduce the number of people who need to be present at work, though noting that reducing cost is also a strong driver for automation (Okopnyi et al., 2023).

While these studies provide a broad overview of journalists' adaptations to COVID in diverse settings, only a few focus explicitly on the impact of flexible work situations for the work and the workers. There is even less explicit attention to what those experiences mean for the future of flexible work—the focus of this paper—even from those authors who predict that remote work will remain common (e.g., García-Avilés et al., 2022).

2.2 Flexible Working by Telecommuting

We next review research on the impacts of working out of the office, drawing from research on the impacts of telework or telecommuting, as WFH mandated in the time of COVID is similar to the way teleworking has long been performed. By telework, we mean situations where an individual worker performs their regular duties from an alternative workplace, for example, home or perhaps a telework centre. For instance, many stations have reporters in remote bureaus or working independently. We also include more recent articles that examine WFH during COVID specifically.

Of particular interest is the role of information technology in supporting telework. A teleworker often works via technology, for example, to connect to the employer's network and systems, and to maintain contact with the community, that is, their manager or fellow workers, via electronic media such as email, chat or video conference (Belanger et al., 2001). We conceptualize technology as an assemblage, that is, a collection of different systems, each individually selected and appropriated to address some particular task (Sawyer et al., 2014). For instance, journalists

typically use different applications for word processing, email, calendaring, recording interviews, tracking sources and editing video. Some of these technologies are personally selected, while the employing organization dictates many others. As a result, different journalists may use slightly or radically different assemblages while doing more or less the same kind of work. And as technologies change, the assemblage will also change, steadily evolving—for example, email replacing fax, and cell phones replacing landlines (Reich, 2013)—or in rapid jumps, as with the rise of data journalism and the addition of big-data tools or the addition of teleconferencing apps during remote work.

To organize our review of the impacts of telework on worker effectiveness, we apply Hackman's (1987) team effectiveness model, which identifies three objectives to consider in assessing the effectiveness of a team: task output, team member growth and fulfillment and team viability.

- Task output: client satisfaction, or the degree to which the group's product or service meets the standards of quality, quantity, and timeliness of the people who receive its output
- Team member growth and fulfillment: satisfaction of an individual team member's personal needs, or the degree to which the team experience contributes to the growth and personal well-being of team members, which might include team member future employment opportunities, reputation and learning.
- Team viability: the continued ability to work together or the degree to which the process of carrying out the work enhances the capability of group members to work together in the future.

We note that while Hackman focused on the effectiveness of teams specifically, the first two dimensions of effectiveness apply equally to individual work.

2.2.1 Task output. We first consider task output (also called production), meaning the degree to which the teleworkers' product or service meets the standards of quality, quantity, and timeliness of the people who receive their output. Interestingly, our review of the literature on telework did not turn up many discussions of telework creating problems producing satisfactory task outputs, perhaps because problems with production are a reason to stop teleworking. Indeed, teleworking has even been found to be beneficial for production by limiting interruptions from coworkers and supervisors, letting the worker focus on actual work (Bloom et al., 2015), a finding echoed during journalists' WFH (García-Avilés et al., 2022). Not having to commute also potentially increases the time available for work. However, literature has noted limits on the kind of work that can be undertaken in this mode. For instance, reduced opportunities to interact face-to-face could hamper the development of an intra-organizational network and thus the ability to work on interdependent tasks (Allen et al., 2015). Companies may have a free-flowing culture with *ad-hoc* huddles to discuss the problem at hand, which would leave out a telecommuter (Kurland & Cooper, 2002).

Conversely, a major concern for the managers of teleworkers is the loss of control and the perceived inability to measure performance (Kurland & Cooper, 2002). The literature has identified different performance measurement tools, for example, to capture screen time, keystrokes or emails. However, the surveillance of these tools often reduces the motivation of the telecommuter and leads to more pressure, thus negatively affecting performance (Fairweather, 1999). An alternative form of measurement is a performance-based approach such as Management by Objectives (MBO), where performance is evaluated by the final task output. However, reliance on this form of performance measurement may lead to a feeling of loss of control for the manager (Kurland & Cooper, 2002). More general research on the impacts of COVID-related lockdowns has noted the difficulties that managers in particular perceived in remotely coordinating work or

providing leadership (Birkinshaw et al., 2021; Kirchner et al., 2021; Teodorovicz et al., 2022). A particular difficulty was bringing in new team members remotely (Birkinshaw et al., 2021).

2.2.2 Team member growth and fulfillment. Turning to contributions to the growth and personal well-being of workers, the most commonly discussed impact of telecommuting has been the isolation of working from home, either professional or social (Allen et al., 2015). Professional isolation means that teleworkers feel that they are “out of sight, out of mind” in terms of work (e.g., not being included in informal discussions). A common concern about professional isolation is being overlooked by the manager in terms of getting work opportunities and career progression (Kurland & Cooper, 2002; Yap & Tng, 1990). For instance, a manager might entrust a project to an employee because they met and discussed it informally (Kurland & Cooper, 2002), which might not happen to a teleworker. Social isolation means that workers feel personally disconnected from the community of their coworkers and their supervisor. A survey of Belgian journalists during COVID found many reported social isolation (Libert et al., 2021), a feeling repeated in many other settings (e.g., Gao & Sai, 2020). It has been found that the type of job can moderate feelings of isolation. Jobs that require face-to-face interaction (e.g., through video conferencing) make workers feel less isolated in comparison to jobs that require minimal or no face-to-face interaction (Golden et al., 2008).

A second impact of telework is on continued learning by the teleworker. Learning often flows in the network through connection and communication with coworkers and supervisors (Allen et al., 2015). In a scenario where the employee has limited opportunity to interact with others informally, there are negative impacts on professional development. Moreover, learning does not just happen through one medium: the lack of physical presence reduces one’s ability to learn through informal interaction with coworkers. The ability to reach out to the coworker on the next

desk is hampered when teleworking (Mathisen, 2019). Conversely, managers often feel that it is difficult to mentor remote employees (Kurland & Cooper, 2002).

Third, telework can create issues for work-life balance. Telework is often looked at positively by employees as it can provide autonomy to manage work life (Allen et al., 2015; Gajendran & Harrison, 2007) and so the ability to more flexibly balance family and work (Delanoeije et al., 2019). Specifically, it presents increased opportunities for women who traditionally have faced greater household responsibilities (Iskan & Naktiyok, 2005). The literature has found that telecommuting moderately improves family relationships and reduces family conflicts (Allen et al., 2015; Gajendran & Harrison, 2007). A possible outcome of the broad shift to WFH is an increased acceptance of the blurring of family into work times and spaces (Couch et al., 2021). However, the flexibility that comes with telework can also cause frustration because of the difficulties in dividing time between work and family (Couch et al., 2021; Libert et al., 2021; Mann & Holdsworth, 2003) and an inability to know when to stop working (Allen et al., 2015; Mann & Holdsworth, 2003). It seems like a paradox, where on one side teleworkers feel less stressed working from home in comparison to working from the office because of their ability to have more control. At the same time, they find it difficult to pull the plug on one task and focus on another (Duxbury et al., 1992). It is like saying: “I have control, but I can’t stop working.”

2.2.3 Team viability. A final impact of telework is on the capability of group members to continue working together on an ongoing basis. Information and resources often flow through relationships, so teleworkers who have minimal chance to interact informally with others reduce their chance to form strong relationships (Kurland & Cooper, 2002). Research has noted that face-to-face interaction is important in creating a sense of trust, which leads to stronger mutual understanding, leading to better coordination and flow of ideas (Kurland & Cooper, 2002). These developments

can be hampered when some team members are remote. A limited ability to contribute and interact with other members around projects can also lead to reduced knowledge sharing and spontaneous coordination (Waizenegger et al., 2020). Similarly, managers report feeling that telecommuting leads to a loss of team synergy and intra-organizational interpersonal networks (Kurland & Cooper, 2002). On the other hand, technology has affordances that can support team collaboration, for example, daily Zoom check-in meetings that help signal the start of the work day and provide some sense of connection to others (Waizenegger et al., 2020).

In summary, the literature on telework suggests that teleworking employees can be productive, at least for some kinds of work, but may suffer from difficulties with work-life balance, loss of informal learning and isolation, leading to reduced connections to co-workers and problems coordinating work. Better technology may help mitigate these issues.

2.2.4 Differences between telecommuting and WFH during COVID. While the telework literature is quite informative about the possible impacts of remote working, it is important to note several differences between traditional telework settings and the WFH situation facing journalists that affected how WFH was experienced (Waizenegger et al., 2020).

First, traditionally teleworkers are chosen as eligible for teleworking based on having the necessary individual personal attributes to do it successfully (Kurland & Cooper, 2002). For instance, discipline is often listed as an attribute that decides the success of a teleworker (Allen et al., 2015; Baruch, 2000; Fairweather, 1999). Being a self-starter and organized would also enable a teleworker to better manage their work and the work-life boundary (Fairweather, 1999; Yap & Tng, 1990). As well, satisfaction and the effectiveness of telecommuting depend on the appropriateness of the type of job for telework, which is another selection criterion. But with WFH, there was little or no selection: the situation demanded that nearly all workers work from home if

they could. Looking forward, the enforced nature of WFH is not expected to continue, but the broadened ability to WFH might mean that more people experience this kind of flexibility than would be included in a traditional telework program. Indeed, research suggests that many of those who were forced into WFH by the pandemic found that they benefited, suggesting that they will want to maintain it in the future (Bick et al., 2020)

Second, in a traditional telework setting, employees are trained in successful techniques of teleworking before they start (Allen et al., 2015; Kurland & Cooper, 2002) and are provided with the necessary resources. For instance, the literature mentions that individuals who have an in-home workspace for telework performed better than individuals who were less well equipped (Yap & Tng, 1990). However, the exigencies of COVID often meant that workers were forced into this mode of working with little preparation either personally or in terms of resources to support work or even a space to work in. For instance, Hoak (2021) found that nearly one quarter of WFH journalists reported “receiving no supplies, technology, or extra training at all”, leading to greater levels of stress. Stress from WFH was reported to be higher among those without prior experience (Escudero-Castillo et al., 2021; Oksanen et al., 2021). Looking forward, one might expect that several years’ experience with WFH will have substituted for formal training and those still lacking resources will cease WFH.

Finally, the literature suggests that telework results in improved performance if it is done in moderation (Baruch, 2000; Gajendran & Harrison, 2007; Golden, 2012). Research has distinguished between high-intensity and low-intensity telework. High-intensity telework means that work is often performed from home, similar to full-time, while low-intensity telework means that a part of the work is done from the office, and part from home. Moderate intensity of telework has positive implications on the performance, motivation, and family relations of the individuals

(Allen et al., 2015; Gajendran & Harrison, 2007), while high-intensity telework has been shown to negatively impact these outcomes. Unfortunately, with COVID-driven WFH, it was usually not possible to select the option of WFH only a few days a week. As well, WFH may have gone hand-in-hand with other restrictions on life, for example, a lockdown, exacerbating negative impacts such as social isolation. In contrast, a future hybrid work environment might look more like traditional telework than COVID-era WFH.

On the positive side, it is important to note that the technology to support telework has improved greatly since the time of many of the studies cited above. Personal computing and networking are much more capable and fully integrated into many kinds of work, which may offset some of the negatives (Kuruzovich et al., 2021).

2.3 Activity Theory

Finally, we present a brief synopsis of activity theory, which we selected as the framework for our analysis because of the prominent role it gives for technologies as mediators in work, as well as the way it embeds individual activities in their social context. Activity theory challenges the usual dualism of actor and action. Instead, the basic unit of analysis for activity theory is the activity: a subject working to achieve some object with the use of tools or mediating artifacts. The argument is that it is not useful to think of people as having skills or tasks having demands in the abstract: instead, what matters is how those skills and demands are exhibited when a person works to achieve a particular objective (Kaptelinin & Nardi, 2006, p. 31). For instance, Kaptelinin & Nardi (2006) note that saying that someone is “good at math” (or not) can be misleading since they may perform quite differently depending on how a problem is posed (2006, p. 31).

Objects can be understood as elements in a hierarchy. At the top level is the object, distinguished by being itself a motive for activity, that is, the object meets some need of the subject

that makes achieving it inherently desirable (Kaptelinin & Nardi, 2006, p. 60). The object can be decomposed into a series of actions that individually may only be indirectly connected to the object. These actions are directed at conscious goals that the subject seeks to attain on the way to the object (Kaptelinin & Nardi, 2006, p. 62). Actions in turn can be decomposed into operations, processes that can be performed automatically (Kaptelinin & Nardi, 2006, p. 62).

Activities are situated in and affected by their environment, both physical and social. Accordingly, an important element in understanding the relationship between subjects and objects is the role of mediating artifacts, that is, how tools (considered broadly) are used by the subject to accomplish the object. The resulting model is shown in Figure 1. Mediating artifacts are important because first, they shape how subjects interact with the world and second, because they embody past learnings about the activity from those who created the tools.

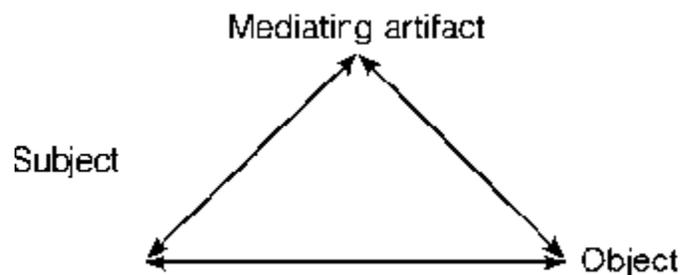


Figure 1: A mediated activity (from Engeström, 2001, p. 134).

Activity theory grew out of studies of learning, in which activities are viewed as the source of development for a subject. A key notion here is that learning is socially embedded. Activities start out as intersubjective, as a person learns how to perform particular actions with assistance, for example, learning to drive a car by steering while an instructor picks a route, monitors traffic, etc. (Kaptelinin & Nardi, 2012, p. 18). Similarly, the initial performance of an activity may be guided by external feedback from the environment (Kaptelinin & Nardi, 2006, p. 69). However, as

mastery is obtained, the activity may be internalized, meaning that it can be performed by subjects on their own, based on an internal mental model.

Other activities remain intersubjective even when mastered because they are collaborative and performed with others. In these cases, externalization of one individual’s work may be needed so that others can react in a coordinated way (Kaptelinin & Nardi, 2006, p. 69). Adding the social context results in a model of an activity system as shown in Figure 2. To the triad of subject, object and mediating artifacts is added the community with implications for the division of labor among collaborators and shared rules for how the activity is to be performed.

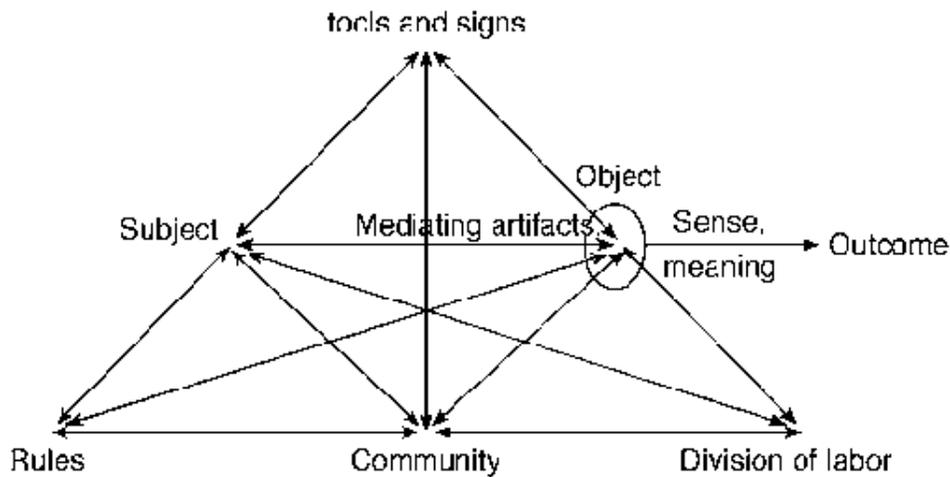


Figure 2. The structure of a human activity system (from Engeström, 1987, p. 78)

Finally, while the discussion above has considered a single activity, activity systems can be connected, for example, the outcome of one activity system can be an input to another. Figure 2 shows the outcome of the activity system, some result or product of the activity that can be used elsewhere. Activity theory posits a complex set of possible interactions, as shown in Figure 3, distinguishing between activity systems that create the elements of another system (e.g., training to develop subjects or tool development) and those that use the outcome of a system for some other purpose (labelled as “culturally more advanced” in the figure). A key notion in examining these

relationships is the possibility for contradictions, that is, “the clash between individual actions and the total activity system” (Engeström, 1987, p. 98). In other words, what makes sense for an activity system when considered individually may conflict with what is needed elsewhere. The figure differentiates different levels of conflict, within (levels 1 and 2) and between activity systems (3 and 4). Resolving contradictions is the driver for continued development of an activity system.

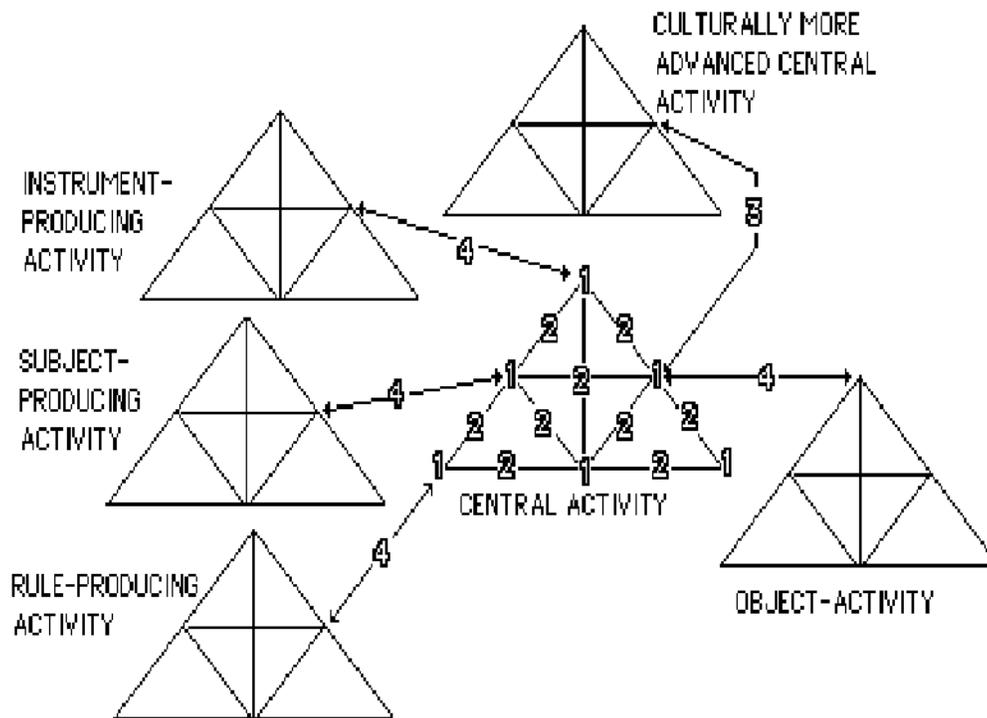


Figure 3. Four levels of contradictions within the human activity system (Figure 2.7 from Engeström, 1987).

2.4 Research Questions

From the review, we developed three broad research questions that guided our data collection and analysis. First, past research has noted that the type of work affects telework success. News workers have varied kinds of jobs with different demands for interaction, from in-field story collection to in-office reporting and production. We therefore first asked, what are the consequences of flexibility in work location during WFH for people in different roles with regard

to getting their work done (i.e., achieving the objectives and goals of an activity system, such as producing a news story or managing subordinates)? Second, given the activity-theory focus on mediating artifacts and the prior studies noting the importance of information technology for telework, we asked what technologies are being used to facilitate flexible working and how are they being applied? Finally, we wanted to understand the consequences for workers when flexibility regarding work location increases, such as impacts on productivity, isolation or work-life balance. Activity theory's focus on learning suggests considering impacts there in particular. We also consider effects on work relationships at the team level, as telework has been shown to decrease team cohesion.

3. Materials and Methods

3.1 Data Elicitation

Our study draws on two sources of data. The first source is semi-structured qualitative interviews with a purposive sample of ten news directors (i.e., newsroom managers) from local TV stations across the United States (US). Five of the news directors work in large-market stations and the other five in medium-market stations, defined as stations located in the Top 30 (large) and 31-90 (medium) 2021 Nielsen-ranked markets*. All interviews were conducted via Zoom and lasted between 25 and 42 minutes with an average length of 34.5 minutes. The investigator who led the data collection is a former local-television-news producer coming into this study with years of newsroom experience, shared professional language and workplace cultural understanding.

* The Nielsen Company divides the US into 210 Designated Market Areas (DMAs), regions in which viewers receive more-or-less the same TV content and that constitute a single market for advertising sales. DMAs are ranked by the size of the audience, from New York (1) to Glendive, Montana (210).

News directors were asked questions about their experience managing their newsroom during the COVID pandemic. They were asked: what they felt was lost or gained during this arrangement of remote work, what they learned from this experience, if they believed that remote work was to be the “new normal” for local TV newsrooms in the US, if they believe that their newsroom was still “doing” good journalism, their thoughts on journalism innovation, and what they believe was the biggest challenge facing their newsroom today. Interviews were recorded and initially transcribed using Zoom’s built-in, auto-generated transcription service. A research assistant and one of the co-authors then reviewed each Zoom transcript against its audio recording and corrected the transcripts for any names or industry terminology that Zoom misinterpreted.

Second, to add to the managers’ perceptions of WFH, we also observed remote work at a single station. Because of COVID, all data collection was completed remotely using Zoom. The case study included weekly attendance at morning and afternoon newsroom meetings along with observations and informal interviews. The morning meetings lasted between 30 and 60 minutes. The afternoon meetings, as is commonly the case, were much shorter, lasting between 10 and 30 minutes. Observations took place across five days in December 2020 and January 2021 for a total of 3 hours of meetings. Following each meeting, the researcher opened a Zoom room to observe a worker for an average of an hour per worker (8 hours total). Of the 8 journalists observed and interviewed, 4 were reporters, 3 producers and 1 manager who is also the station’s chief investigator. Reporters were asked questions about their WFH routine (e.g., What have you already done since the morning meeting?) as well as their coworker interactions (e.g., What’s different about working with a photojournalist from home?). Producers were asked about their WFH routine (e.g., Describe your workday for me). Meetings and news work were not recorded for two reasons: traditional newsroom case studies do not commonly involve recording observations with video

cameras and the investigator was not provided Zoom recording privileges. Instead, the investigator observed each meeting, typing notes in Word. Screen captures were made of attendance rosters and story assignments for the day.

The study was reviewed and approved by the university's Institutional Review Board. Subjects provided verbal informed consent for interviews and observation and could request that particular answers not be recorded. Quotations included in this paper have been anonymized.

3.2 Data Analysis

The interviews and observation datasets were subject to deductive coding. Transcripts and observation notes were uploaded into a qualitative research program. We developed codes for the theoretical concepts from the literature review. Those codes included subjects, objects and mediating technologies and the other components of the activity theory framework. Additional codes captured concepts that emerged from the review of the telework literature and that feature in our research questions, such as managerial control, professional and social isolation, mentorship and learning, productivity, work-life balance, and work relationships. Examining co-occurrences of these codes led to the findings presented, e.g., identifying relevant activity systems by the co-occurrence of particular subjects, objects and technologies, and the problems and concerns about performing them during WFH.

4. Results

We now present the findings of our study. We found a lot of commonality across interviews, which was expected. Work and activity systems are largely similar across stations, as stations in larger markets are typically in the financial position to experiment with innovative technology while stations in small markets copy those innovations (Henderson, 2021; Imre & Wenger, 2020).

In this section, we describe the impacts on work and workers prompted by WFH, with particular attention to the role of technology as a mediator in the activity systems.

4.1 Subjects, Objects and Activity systems

We start by providing a description of the subjects, objects and activity systems that comprise the regular work of news workers, focusing on the core group of reporters, photographers, producers and news directors. Anchors, the digital team (i.e., journalists who adapt or create content for the web or social media), editors and weather or sports reporters were not the focus of the interviews and so were mentioned only in passing.

4.1.1 Reporters and photographers. The reporter is responsible for developing a story to be part of a TV newscast (i.e., a reporter is the subject of an activity system and a news story, the object). While some stories may be developed over days or even weeks, many are completed in a single day. An initial action is to pitch a story idea to the news director during a daily meeting and get approval to develop it. The reporter identifies news sources for the story, arranges any interviews and asks questions during an interview.

The photographer records footage of the interview and what is called the B-roll, additional video to support the story, for example, footage of someone doing the activity that's being described. It is increasingly common in smaller markets to have one person, a reporter-photographer or multimedia journalist (MMJ), do both jobs, reporting and photographing.

Reporters write the script for what they will say during the story and what material to use from interviewees, working with the photographer to match the recorded video to what the reporter wants to say or adapting the script to fit the available video. The reporter might develop different versions of the story for different newscasts or the story may continue to develop and be updated.

The photographer and reporter and sometimes an editor edit the recorded video to match the script and add any needed voice-overs, using one of a number of editing programs, such as Adobe Premiere, Avid or Final Cut. For this purpose, a station will usually have a number of editing stations, computers with editing software, as well as recording booths for recording the voice-overs. Finished stories (in the form of large high-resolution video files) are stored on a server to be available for broadcast.

Reporters often appear live on camera during the broadcast to introduce their stories or record an introduction to be played instead (a “look live”). If the reporter is in the field, the live video can be transmitted to the station in several ways, for example, by satellite, a dedicated microwave transmitter or increasingly via multiple cell phone connections used simultaneously to increase bandwidth, for example, LiveU or Dejero.

4.1.2 Producers. Producers are responsible for the entire TV newscast. Producers decide which stories to include in their shows, in what order and with which presentation techniques. Producers write all of the scripts for the anchors to read during the broadcast. In many newsrooms, for stories not already covered by reporters and their photographer partners, producers are also the video editors and the graphic designers for the newscast content. The producer’s daily work culminates in the actual live broadcast, during which the producer coordinates directors, sound engineers, graphics editors, video feeds, camera operators, anchors, reporters, news wires and more in order to broadcast the day’s stories to the audience.

4.1.3 Managers. Traditionally, the role of the local TV newsroom manager (the news director) includes editorial decision-making, hiring and firing responsibilities and budgetary distribution in terms of both money and time. Today, that role has expanded to include multiplatform editorial decisions across TV, web, social media and streaming channels, related marketing responsibilities

and many new human-resource obligations (Dworznic, 2018). Of particular significance to this study, an important managerial responsibility in many newsrooms is overseeing the work of less experienced staff and providing feedback, mentoring and on-the-job training.

4.2 Adapting to Hybrid Work

During WFH, activity systems had to adapt to the need to work out of the newsroom using technology support. We first consider individual activity systems, that is, how subjects achieved their objectives and the role of technology in adapting to COVID restrictions.

4.1.1 Reporters and photographers. As noted above, reporters and photographers primarily worked in the field, so technology was already available to complete stories without coming into the newsroom. Stations possessed equipment such as cameras to record and upload video remotely, and these were just sent home with the reporters or photographers. Reporters are accustomed to having to scramble to get a story and there was a sense that learning to work under the constraints of COVID was just another challenge.

Video-conferencing was an important mediating artifact for performing remote work. Video conferencing replaced in-person attendance at press conferences and even interviews, since many interviewees also had experience with tools like Zoom. As one respondent commented: “Interview subjects have adapted to what we're doing right here, which is, you know, conducting interviews over Zoom as you would conduct them in person.” Indeed, remote interviews were found to have benefits, for example, some systems can automatically generate a transcript of the call or the recorded video can be uploaded to a transcription service. Respondents also noted that the shift to remote interviewing eliminated the time spent driving to interview in person, allowing that time to

be used more productively, and made it possible to interview people beyond those in the local area.

As one said:

You can get a Zoom with anybody, anytime, anywhere. Boom. There's your, you know, there's your interview and it's, you know, I don't hear 'no' anymore to anything. ... if I say, hey, I really want to get this great interview and they're like, Yeah, I got it. Zoom. Boom. Done. ... you can talk to anybody, anywhere, and it's just, it's so great.

When interviews were done via Zoom, reporters did not necessarily have to go into the field at all. They were provided with lighting and backdrops to equip a home studio from which they could introduce their stories using cameras with connectivity that could transmit live to the station for immediate broadcast. They could even just use a phone to record video. News anchors could similarly present from home rather than from the newsroom. The available technology also supported other objectives. Video editing for a story can be done on a laptop rather than at the station and the video uploaded to the station for broadcast, assuming the reporter has a sufficiently powerful laptop and sufficiently speedy internet service. Editing can even be done in the field and the video uploaded remotely, for example, using the Wifi network at a Starbucks.

While the stories were successfully created and the news program put on the air, respondents noted some concerns about the quality of the stories. For instance, restrictions on personal contact meant no face-to-face interviews in some cases; these were carried out instead while standing at a safe distance or by teleconferencing. While these interactions sufficed to get the story, respondents suggested that a remote interview might limit what the reporter can ask, and by diminishing the dynamics of the interview and development of rapport, limit what they can get from the interview.

As one noted:

Some of the stories don't turn out as interesting as they should. It's very easy nowadays to do a one-person interview story because that's all, you know, you spend all day trying to get somebody on Skype and you got that.

Similarly, not having a reporter at a news conference meant that there was no opportunity to ask questions formally or informally vs. watching the broadcast. A news director said: “Our city government is meeting virtually now ... it is not a very exciting way to do it. It’s kind of easier for us to watch it on YouTube, but to talk to people afterwards, it’s not.” There was also a sense among respondents that not being out in the community reduced creativity. As one respondent said:

We don’t stumble on stories like we used to. You know, you're at home, you're not driving back and forth to work, you're not out in the community where you get somebody’s idea or somebody approaches you to get a better story... Being isolated keeps us from communicating with our fellow citizens and, therefore, I think our stories are not as interesting.

When interviews were conducted via Zoom, the photographer’s role was greatly diminished, which also affected the quality of the storytelling. Photographers may be able to ask questions in an interview, but they cannot make that contribution if they are not included in a Zoom call. In a traditional setting, they also think about visuals they can add to the story based on what they can record (i.e., the B-roll). But if interviews are held at a distance, they might be able to get only building exteriors, which are not visually compelling.

4.1.2 Producers. While reporters and photographers always worked in the field to a large extent and so were prepared to continue to do so, stations unexpectedly found that producers with a laptop and Internet connection could also work from home, that is, achieving the objectives of writing the show or editing video or graphics. As one respondent noted:

What we were surprised to find out was that we could move producers to work remotely. I thought that was going to be the biggest challenge and in some days it was. However, it wasn’t insurmountable. It wasn’t even really that hard.

As the pandemic emerged, staff needed to quickly figure out new ways to do things. Creative uses of the technology were described. One station technical director created Zoom accounts for the different feeds that would be referred to in the control room, allowing the producer to connect to

them over Zoom. Another station used Discord for the same purpose. As a result, respondents found that it was even possible to produce a newscast remotely. Someone has to be in the station control room to implement directions about which source to put on the air (called “boothing the show”) but that person could be on a call with a producer rather than sitting next to them (indeed, the Democratic National Convention broadcast was directed from the director’s home, though with a lot more technology than a laptop). As one said:

They came up with this technology of boothing with this iPad. It’s a Zoom call they do for their newscast. They log into the Zoom to booth the show, so they're timing it there, they're talking to the talent, they're doing all that. And that’s really incredible technology.

Of course, there were still technology issues to work around. For instance, a producer might identify a network feed they wanted to use in the show, but rather than simply downloading it to the server to include, they might have to ask someone at the station to retrieve it or download and upload it from home.

4.3 Connections and Tensions in Evolving Linked Activity Systems

As noted earlier, activity systems do not exist in isolation but are linked. We next examine how linked activity systems were affected by the hybrid nature of WFH.

4.3.1. Connected outputs. As noted, the work of developing a TV newscast has mostly pooled dependencies, meaning that the activity systems that develop news stories are linked to the system of creating the show, but not necessarily to each other. Each pair of reporter and photographer usually develop their story separately from others, coordinating instead with the producer. Even so, WFH hindered group functioning on a day-to-day basis. The distributed nature of the work led to problems with communication, for example, not being able to easily coordinate who will do something or letting one group know what the others have done. Reporters could mostly work independently but still would benefit from knowing how the story they are covering relates to

others. One commented: “I think that the people who are in the field are really starting to struggle because of that, they don’t have a big picture of what’s going on.”

As well, keeping track of assignments with distributed workers took extra effort. One news director described the station’s approach:

I have one EP [executive producer] who basically spent a whole day on Slack with the people working from home to figure out who’s doing which assignments and so the people working from home, say, it’s great. You know, I really like this. And I’m thinking, Well, it’s because, you know, poor [Maria] over here in the corner, who’s an EP, isn’t really looking up from her computer because she’s constantly updating people at home.

The need for explicit interaction around work assignments particularly impacted the team’s adaptability, as could be seen when managing work on breaking news stories. When everyone was physically co-present, the news director could walk into the newsroom to ask who was covering what aspects of the story and to avoid, for instance, redundant coverage of the story on different news programs or duplication of effort, for example, multiple reporters going after the same sources. Making these decisions took more effort with remote workers. As one news director said:

... now I have to set something up or Slack them or email them or maybe email multiple people on a team just to get a simple answer. So I’m spending more time personally as a news director trying to touch base with all of my members of my team.

Technology only partly compensated for direct interaction in supporting coordination. Daily editorial meetings moved from in-person in the newsroom to via Zoom, but provided only a single point of contact. For on-going communication among co-workers or for asking quick questions, newsrooms had implemented systems like Slack or Teams even before COVID. The use of these systems was reported to increase during WFH. For instance, one news director reported an attempt to replicate the face-to-face experience: “The producers, on their own, what they did was they decided to have a Zoom meeting open all day and they talked as if they would naturally in the newsroom across desks via Zoom throughout the day.” These conversations would not always include reporters though, who are not able to stay on Zoom while doing their work with sources

or in the field. Managers also noted that different generations of workers have different comfort with technology and different preferences, some preferring Slack and others wanting to use email or text. There was an expectation that workers be adaptable and meet senior colleagues where they want to be. News directors could dictate the use of technology, but that depended on their realization that they needed to do it. With all of these different channels, a final problem was maintaining awareness without overloading people. For instance, different shows or shifts might have their own Slack channels for communication, but then find it necessary to read each other's channels to be aware of the stories an earlier show had covered and how.

While group cohesion is less of a concern than it might be in a team with strong reciprocal interdependencies, respondents also suggested that WFH has had an impact. For instance, to minimize the chances of spreading infection, one station had the same pairs of reporter and photographer work together long-term, but this structure greatly reduced (or even eliminated) interactions with other staff. Furthermore, the lockdowns imposed by COVID reduced opportunities for informal interaction (e.g., the bar after work) that were useful in maintaining group morale. These findings echo those of García-Avilés et al. (2022).

4.3.2. Subject learning. A key focus of activity theory is how subjects learn to be productive members of a community by performing activities. This learning can be viewed as the development of a particular activity system or as a linked activity system creating subjects for other activity systems (as in Figure 3). While the experience regarding the completion of the primary activity system was mostly positive, remote working was not perceived by study respondents as successful in developing workers. Losses include a lack of opportunities for informal one-on-one interaction to support learning new tasks (activity theory's interpersonal learning noted above). Because of shifts in responsibilities and working conditions even before COVID, news directors have less

time to do editorial work themselves. They could, however, do “drive-by editing,” that is, looking over a reporter’s shoulder as they edited a story and giving advice, or reviewing a story and giving feedback. As one commented, when people worked in the newsroom: “I may hear somebody, always keep my door open and I may hear someone talking about something and I want to chime in on how we should cover it.” Another noted:

I love newsrooms that have half of the newsroom, a lot of veterans that have been in the business in a while and then half of the newsroom young up and coming journalists and I think those are the best newsrooms because I think our veterans can learn from some of our younger employees and I know our younger employees can learn from some of our veteran journalists, so I feel like we're always constantly teaching each other.

However, when the work is performed at home, the opportunity for informal mentoring from the news director or each other does not exist, which news directors found problematic. To provide training, a reporter and news director would have to intentionally set up a time for a discussion, which is difficult to fit in given the time pressure, though some reported setting up periodic group critiques and feedback sessions and one person mentioned giving training over Zoom to a remote hire. But the new medium took some adaptation: as one person commented, “It’s hard to be critical in a nice way over the phone or over the Internet.”

5. Discussion

In summary, during COVID stations found that technology had improved to the point where it was in fact feasible for TV reporters and photographers to report on a story entirely remotely and for producers to create and produce a newscast from home, though the latter with some technological challenges. As they scrambled to adapt to COVID-induced restrictions, news workers were able to come up with creative ways to get the work done. We observed some interesting adaptations of technology, such as connection to the studio control room via Zoom (notably with in-person directors, audio technicians, and camera operators or robotic cameras). In

other words, the COVID pandemic acted in some cases as a prod towards the digital transformation of the work (Willcocks, 2021).

A key theoretical question is, what factors in local TV news work made WFH as successful as it was, that is, for what other kinds of work might WFH be equally successful? As noted, the work of TV journalism has primarily pooled dependencies, with the producer in a central role, coordinating the work of the reporters and interfacing with other members of the production team. It may be that the type of interdependencies was one of the reasons that the shift to WFH worked as well as it did. Work that is more tightly coupled would presumably be harder to carry out in a distributed or hybrid mode. It is also important that reporters were accustomed to working from the field and had the training and equipment to do so, though it was a shift to not come to the newsroom at all. This finding mirrors the observation that those with experience teleworking were less stressed by WFH (Escudero-Castillo et al., 2021; Oksanen et al., 2021). That familiarity might be uncommon in other professions.

In light of the apparent success of WFH, many of the news directors interviewed (similar to many other managers) were considering continuing this mode of hybrid work even when the public health needs abate. However, given the number of technicians who would need to remain in the studio, we suspect that producers will likely follow this procedure only during COVID waves. There are also unanswered questions about the impact of remote producers on the visual quality of the newscast and whether it will be acceptable to viewers in the long run. Respondents were notably more confident about continued WFH for reporters saying: “I don’t know if our reporters are going to come back.” “There may really be no reason for the MMJs to travel into the station, do whatever little thing they're doing there and travel back out.”

There are clear advantages to employees in this mode of work, for example, not having to commute. The organizations also benefit, for example, in the savings of a physically smaller and less expensive newsroom. However, there are costs that seem to not be visible to the managers. For instance, employees faced numerous technical challenges, such as the data speeds needed to transfer large files, as well as bearing the costs of acquiring technology (laptop, Internet, phone) shifted in some cases from the employer to the employee, leading to greater stress.

As well, providing opportunities for informal learning or hands-on mentoring is harder to address when people are working in a distributed fashion rather than in a shared workspace. Technology might provide a partial solution. For instance, a system like Twitch would enable a newcomer to watch someone else working as a kind of peripheral participation or for a manager to look over a worker's shoulder as they perform a task. We wonder though if workers will be willing to spend time on learning activities given the pressures of their regular jobs. It might be workable if such a broadcast could be running in the background, enabling someone to pay partial attention and then tune in or ask questions when they saw something interesting.

A further concern with continued WFH is that responsibility for different kinds of work may shift in unexpected ways (i.e., changes in the division of labour or degree of specialization, as noted by Okopnyi et al. (2023)). One respondent noted in particular the potential impact of changes on producers as the central node in the workflow, saying: "With every so-called efficiency that we come up with due to technology, what really happens is you put that job, whatever it's come down to, onto the producer." For instance, the effort noted above to keep up-to-date on what work reporters were doing became extra work for an executive producer. It is notable that all of the news directors interviewed commented on the difficulties in hiring and retaining producers. Longer-term, Willocks (2021) forecasted shifts from full-time to contract employees as it becomes easier

to bring someone in for a short period. The economics of the news industry push towards reducing costs and many stations already rely on part-time contract employees. WFH could accelerate this trend, since it is easier to employ part-time or temporary workers if they can participate remotely rather than having to come temporarily to a new work location.

Interestingly, activity theory seemingly does not address whether people enjoy their work. However, from our data it is clear that there is a cost of WFH to workers in the lack of individual support, leading to feelings of isolation, as well as lack of enculturation and impacts on team cohesion. As noted above, COVID restrictions greatly reduced non-work related interactions (e.g., a walk with a colleague between shows or time in a bar after work). The latter provided enculturation as well as emotional support in coping with the stresses of the job, which were of course exacerbated by the pandemic (Libert et al., 2021). News directors noted: “People felt very isolated and it was difficult to figure out how to help them through that.” Another commented: “These [the reporters] are kids in many cases that are just out of college who have no friends in this town and all their friends were here.” In other words, while professional isolation may be less of an issue when everyone is remote (Waizenegger et al., 2020), social isolation continues to be a pressing problem. Work-life balance also was impacted by WFH, exacerbated by the stresses of the pandemic.

If WFH is to be “the new normal,” it is important to identify ways to mitigate these negative outcomes. As the threat of COVID starts to recede, it seems likely that reporters will begin socializing in person again, which could address emotional support and possibly enculturation. Enculturation of remote workers might also be supported by establishing virtual “water cooler” sessions for informal interaction in the absence of face-to-face encounters. However, making time for such non-work interactions in a virtual setting requires sustained effort.

6. Conclusion

In summary, the contribution of this paper is to synthesize past research on the impacts of telework and to show how these shift in the case of WFH. The study shows that technology and creative adaptation were sufficient to allow TV news workers (reporters, photographers and producers) to successfully create a news broadcast from home. However, we also find that concerns raised about the impacts of telework on social isolation, opportunities for informal learning, and team coordination still apply to WFH, despite advances in technology. Continued use of WFH will require further adaptations to address these issues.

Like all studies, the work presented here has limitations that might be addressed in future work. The main limitation is the scope of the data collection. As the situation was emergent, we conducted a short-term study. This limitation could be addressed by broader data collection, for example, a survey that followed up on some of the themes of this paper, such as employee satisfaction with remote work. Future work could also address themes found in prior work that were not emphasized by our respondents, such as the role of teamwork and team synergy and how it was harmed or maintained, the role of personal characteristics or situations in successfully coping with WFH or the impacts on work-life balance. Finally, given our findings regarding the negative impacts of WFH on enculturation and training, it will be interesting to see how the circumstances of WFH affected workers who joined news organizations during COVID and how they are successful in the longer term.

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