

Investigating changing work practices: An Activity theory approach

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Introduction

After the outbreak of the Covid-19 pandemic, organisations worldwide implemented changes to their existing work practices to ensure business continuity. A typical reconfiguration was the integration of digital technologies to facilitate remote work practices. A growing body of IS literature has investigated organisational adaptations in this time of unprecedented disruption to understand changes to the working landscape and what the ‘new normal’ will look like in terms of work. Various theoretical lenses have been utilised for exploring changing ways of work in the context of the pandemic, for example, Sociomateriality (Endrissat & Leclercq-Vandelannoite, 2021); Normalisation Process Theory (Carroll & Conboy, 2020); Liminality (Orlikowski & Scott, 2021) and Affordance theory (e.g., Hacker et al., 2020; Mitchell, 2021; Waizenegger et al., 2020).

Affordance approaches are particularly common and have found that web conferencing and collaborative technologies have enabled new ways of working through remote work which has brought about virtual togetherness (Hacker et al., 2020), flexibility and productivity (Mitchell, 2021), and enabled opportunities for managers and colleagues to check one another's well-being (Waizenegger et al., 2020). However, barriers were also identified such as adjusting to enforced remote work in shared home environments (Waizenegger et al., 2020), social isolation, and recreating spontaneous ‘water cooler’ moments that facilitate serendipitous knowledge sharing (Hacker et al., 2020). While these studies are important for understanding technological affordances and how these emerged during the pandemic, further research is needed to better understand the holistic environment that work practices are embedded in (Klein & Watson-Manheim, 2021; Richter, 2020). For example, capturing the wider organisational elements such as organisational culture, norms and policies, and the division of labour that play a role in shaping work practices, can aid our understanding of how work changes and the tensions that surround these.

In this research in progress, we introduce an alternative way of understanding changing work practices through the lens of Activity theory (Engeström, 1987). Activity theory offers a contextual view on human transformation where change is grounded in historical, sociocultural developments over time. From this perspective, professional work practices are seen as constantly evolving and activity theory brings together previous, current, and future practices into the analysis (Foot, 2014). Activity theory has been successfully applied in the IS field (see Karanasios, 2018) and offers the ability to systemically analyse complex

work practices using a conceptual framework which integrates multiple dimensions into one unit of analysis, i.e., *an activity system*. The activity system consists of six interrelated components which provides a concrete frame of analysing work as a whole: subject (e.g. an actor or a team), object (the purpose of the activity that the subject is aiming to achieve), tools (e.g., technology or other abstract entities that subjects employ to act on the object), community (people who share an interest in the object), rules and norms (formal or informal) and division of labour (how work is organised). Rather than focusing on individual elements in separation (e.g., individual actions or a piece of technology) activity theory makes it possible to capture a rich perspective of changing practices at work, where technology, rules and norms, power structure and collective communities inform understanding.

A fundamental concept in Activity theory is ‘contradictions’ which highlights tensions and imbalances within and between activity systems, as well as opportunities for innovation. Contradictions emerge because of systemic tensions between the interrelated components and are sources of development and change (Kuutti, 1996). It is important to acknowledge that from an activity theory perspective, tensions do not simply relate to oppositional elements or paradoxes, they can cause disruptions to the performance of an activity, but also generate creativity and innovation as contradictions are resolved. Contradictions are always present in organisational practices and processes; they give a sense of direction and indicate opportunities for change in shaping the future (Karanasios, 2018).

Through an empirical study, we demonstrate the usefulness of Activity theory in understanding the changing nature of work. The specific research question asked is: *What are the emerging contradictions in transitioning to new work practices as a result of the Covid-19 pandemic crisis in media and broadcasting?* To address the research question, we turn to the UK media and broadcasting industry, as an interesting context. This industry plays a significant role in the UK economy; however, it has been one of the hardest hit by the Covid-19 pandemic, which has forced media and broadcasting businesses to adopt new work practices and technologies in order to remain in business. For example, in some instances live TV talk shows moved from studios to being broadcast live over technologies such as Zoom from the presenter's home, in others, reduced capacity in studio galleries meant that remote cameras and automated galleries had to be utilised.

2 Methodology

The study applied Activity theory (Engeström, 1987) as a methodological and analytic framework. Due to the emerging nature of the research, a qualitative, explorative approach was deemed fruitful. Two complementary sources of data were collected: (1) Six qualitative interviews with senior managers within UK media and broadcasting (P1-6), (2) Digital video data from a two-day industry event by Broadcast Tech where the impact of Covid was a key theme (P7-18). Data was collected during a period of June – October 2020 (phase 1). Additional data will be collected in autumn 2022 (phase 2). A purposeful sampling strategy was applied as information-richness and credibility were important for the research

aim. Semi-structured interviews were conducted face-to-face using online video conferencing software. The interviews lasted for 60-90 minutes and were recorded with consent. All data were fully transcribed and analysed using the Activity theory framework as a starting point.

3 Emerging contradictions in changing work practices

This section presents some preliminary findings from the first phase of data analysis, including the identified contradictions in work practises. These are present in the areas of production and post-production within media and broadcasting. Production consists of filming and recording, for example a TV show, which can also be live, such as news broadcasting. Post-production traditionally occurs after filming and entails editing, visual effects and audio mixing to produce the finished media ready for distribution. Next, we will unpack the emerging contradictions within activity systems and draw on examples from both the production and post-production activities.

3.1 New tools and disrupted division of labour

The first contradiction arose in production as it transitioned from on-site to remote locations. Specifically, it emerged in the intersection between new mediating tools (e.g., technology and infrastructure) and the division of labour as the established way of structuring work was disrupted. Remote production had been available to broadcasters for several years; however, the pandemic provided an opportunity to implement this in practice. The transition happened at rapid pace to keep broadcasting on air and led to the adoption of new tools like automated cameras and digital data transfer. In filming, the recorded media became a digital artifact, removing the need for a physical tape. This in turn changed the need for “runners” to deliver the tape, disrupting the division of labour. *‘You’ve still got a physical camera and a physical microphone and a physical cable, but you don’t have a physical tape or the equipment to manage the physical tape in any form, you’ve taken out a chunk of the value chain.’ (P5)* This quote highlights that not only are peoples’ jobs at risk, but the material element of the work practice is changing. This may alter how the division of labour is collectively structured, how relationships are formed and how work is manifested in practice.

Another example from production is during live broadcasting where automated tools were introduced to facilitate remote working. This meant that fewer staff were needed as automated technologies such as remote cameras, replaced existing roles. Such disruption of the division of labour led to a greater reliance on both connectivity and communication in the new work practice: *‘We used an automated gallery so you’re instantly cutting down the amount of people you’ve got.’ (P9)* While remote production was enabled by new mediating tools, there were concerns over how to manage communication within production teams: *‘How do we maintain that line of communication in a fluid way without delays and god forbid if there’s a loss of connection, what’re the workarounds going to be.’*

(P8) To resolve such problems, it is necessary to develop new rules and norms that will guide communication practices including these remote workers and automated tools. This may require staff to obtain new skills as the nature of work shifts to incorporate automated elements and digital data transfer.

The above examples demonstrate how the division of labour is changing as people are potentially replaced by automated technology or required to work alongside them. It also highlights the need for new rules and norms that govern the new practices. From an activity theory perspective, automation is interesting as technology is often conceptualised as a mediating tool (Karanasios et al., 2021). Whilst this initially was the case in remote production, further developments like those uncovered may mean that automated technologies move beyond being tools to become hybrid forms, here integrated in the division of labour.

3.2. Digital collaboration and dissolved communities

Another contradiction was identified in post-production where new work practices evolved, such as allowing people to edit media from home, as they shifted from geographically co-located, to dispersed and remote. This contradiction was most visible between the community and object as people who shared an interest in the practice negotiated how to work in the new way. The change was highlighted by a participant who reflected on pre-pandemic work: *'In retrospect, a number of customers we talked to have looked at their businesses and said, 'what on earth were we thinking, we were so geographically specific.'* (P18) Whilst digital technologies partly facilitated the transition to remote working, they were viewed as not enough: *'It's just the infrastructure, it's just the wiring. The thing that really needs to change and adapt is how we organise people and how we work together.'* (P3) Collaboration is essential in post-production as media projects require input from a range of people who work closely together. Having a shared view of the object is therefore critical. Traditionally, teams would work in a co-located space, however, with the change to remote working, new issues emerged: *You'd sit in an edit suite before, and you'd collaborate really easily. Editor Producer would sit there and say, 'I'll just stop this bit, or let's watch this bit, let's work on this together.' You can't do that if an Edit Producer is in their house and the Editors in their houses, so, that's a bit of a struggle.* (P6). Consequently, workers had been trialling different combinations of tools to create new digital forms of collaboration: *'It's a really weird one, all these solutions are great but there's something intangible about being in that room with somebody and the creative ideas that flow.'* (P14). It was also recognised that remote online collaboration lacked coordination mechanisms as there was no consolidated practice yet. Rules and norms were emerging as people were trying to figure out how to work in this new way: *'The files were going in so many different places and people and they were not communicating with each other. They were just coming back with conflicting notes constantly as opposed to if they were in the room with me, we would have come to some sort of agreement, so I found myself*

taking much longer to do certain things jobs.' (P13) The quotes suggest that it may take time for remote work practices to become fully established, which require new mediating tools, as well as shared rules and norms for how to structure the labour.

The shift to dispersed teams also meant that the local community of workers risked becoming dissolved. The community was important for knowledge sharing and networking, but with the change to remote working, there was uncertainty in how it would continue operating. For example, editors were now largely based outside of London. This suggests how work in post-production is moving away from its bounded form, it also raises concerns for how to maintain relationships in the community where people are increasingly dispersed and the role of technology growing.

4 Concluding remarks

In this research in progress paper, we address calls for further research into changing work practices as a result of the Covid-19 pandemic. We propose Activity theory as a lens to capture how work practices change as part of wider cultural historical contexts. It offers a rich understanding of how interrelated organisational elements co-evolve and the underlying contradictions that emerge. The concept of contradiction highlights the potential for new organisational forms, while simultaneously bringing attention to the disruption and destabilisation inherent in the same practices. This will be further explored in the second stage of data collection to establish how the industry is developing as we move into a post-Covid landscape.

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