Online Teaching during Pandemic: A Sensemaking Perspective on Technology, Work from Home and Well-being

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Online Teaching during Pandemic: A Sensemaking Perspective on Technology, Work from Home and Well-being

Completed Research Paper

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Abstract

In the paradigmatic shift to online teaching during the pandemic, school teachers were forced to take the lead and responsibility of making the online transition happen. In this study, we seek to understand how teachers experienced the digital transition. Specifically, we examine how technology mediated work practices and its implications for employee well-being. The study adopts sensemaking as a theoretical lens since it allows us to examine, and rationalize actions taken in uncertain times. The findings highlight that while technology played an important role in the digital transformation in schools, the impact of its intertwining with work practices on well-being of teachers was mixed. On one hand it enabled continuity of business, but on the other it led to blurring of work-life boundaries as teachers had to invest time and effort to change teaching pedagogy, develop their technical skills and competencies, and manage conflicting expectations and demands at home. Further, technology affordances enabled thru online teaching increased precariousness of work.

Keywords: School Teachers, Covid 19 Pandemic, Online Teaching, Technology Affordance, Work from Home, Well-being, Sensemaking

Introduction

On March 11, 2020, the World Health Organization classified COVID-19 as a global pandemic. The virus had spread to more than 100 countries including India. Considering the seriousness of the emerging situation, and taking cue from other parts of the world, the Government of India announced a sudden nation-wide lockdown on March 22, 2020. The lockdown was initially announced for 21 days but subsequently extended for almost forty more days. Except for essential services, there was a complete halt in all economic, social and cultural activities. And when restrictions were eased in, they were done gradually and phase-wise. Life is yet to return to normal.

Schools and institutions of higher education are among the most affected by the lockdown (Dwivedi et al., 2020). While there have been instances of temporary closure of schools due to extreme natural or political circumstances, but a complete nation-wide shutdown was never imagined before. But unlike many other sectors, schools were among the first to resume operations by making the transition to online teaching (Asbury et al., 2020). Schools embraced technology quite early during the lockdown to connect with teachers and students, communicate with parents and maintain continuity of work and learning amid lockdown (Hodges et al., 2020). Such large-scale adoption of technology for online teaching was novel but untested (Iivari et al., 2020). Further, in a country like India, there were additional challenges of low
technology adoption in schools, access to infrastructure, data and devices, apart from availability of requisite skills among teachers and institutional support.

In the paradigmatic shift to online teaching, the role played by school teachers has been intriguing (Kim and Asbury, 2020). They were suddenly forced to take the lead and responsibility of making the online transition happen. Pre-lockdown, schools have been developing their digital infrastructure (McFarlane, 2019) but mainly for contacting parents or for computerisation of administrative tasks. Realising the pertinent need to ensure learning continuity, teachers took the challenge to integrate available technologies for online teaching. In this study, we seek to comprehend how teachers experienced the transition to online teaching during the pandemic. Specifically, we examined how technology-mediated work from home and what implications it has for employee well-being.

For this study, we define technology as an ensemble of digital devices and artifacts, having certain features and functionalities that provides individuals and organizations with some affordances and constraints. Technology affordances refer to the action potential that individuals and organizations with particular purpose can accomplish by using technology; constraints refer to ways in which they can be held back from accomplishing particular goals when using technology (Majchrzak and Markus, 2019). Broadly, work is defined as the application of human, informational, physical, and other resources to produce products/services (Alter 2013). Specifically, in this study, we define work as physical or mental activities performed by an individual in order to accomplish or produce something as part of his responsibilities towards his employers or other people. Following Tuzovic & Kabadayi (2020) we consider well-being to consist of four different dimensions – (a) physical, (b) mental, (c) social and (d) financial. Physical well-being refers to overall functioning of one’s body and includes physical strength and fitness, physical activity, weight and sleep. Mental well-being is about psychological and emotional health, in which a person “realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to his or her community” (World Health Organization, 2004). The ability to communicate, develop meaningful relationships with others and maintain a support network (Strout and Howard, 2012) is considered as social well-being. Financial well-being consists of both – the ability to sustain one’s current and anticipated desired living standards and financial freedom and feeling safe about one’s current and future financial state (Netemeyer et al., 2017)

The motivation for the study came from our personal experience as co-participants in this transition. As parents of school going children, we witnessed the challenges teachers faced as they familiarized themselves with interactive platforms, adapted their curriculum and pedagogy, dealt with increased work-load, onboarded students and their parents, handled issues of online abuse and trolling, and faced increased precarity at work. With seemingly never-ending uncertainties in the external environment and the blurring of work-life boundaries bought about by both technology and work-from-home dictates, we observed well-being also emerging as a concern (Tuzovic & Kabadayi, 2020). Set against the backdrop of the Covid 19 pandemic, this study is an attempt to understand the link between technology, work and well-being.

The study seeks to contributes towards emerging empirical research that examines the role of technology in maintaining continuity of business during the pandemic. While, there are many studies in the context of institutions of higher education, our study focusses specifically on schools and teachers as employees. One specific contribution is positing that issues of employee well-being are due to intertwining of technology and work. Following the introduction, the paper is divided into six sections. The second section gives a brief overview of sensemaking as a theoretical lens and its application in information system research. Section three puts forth the research design. It is followed by the section four on data analysis and findings. The fifth section gives the discussion, followed by conclusions.

**Sensemaking**

Until March 2020, teaching typically meant both teachers and students physically attended schools. Students learned in pre-assigned physical classrooms according to pre-set timetables. Teachers generally delivered standard content through lectures, occasionally making use of tools like smart blackboards, videos and power point presentations. Students were assessed through various pen-and-paper based tests and examinations. Online teaching demanded restructuring of all these existing processes. For both, teachers and students, homes got converted into classrooms and interactions happened through digital
platforms on mobile phones and laptops. Apart from online teaching, teachers also had to manage their homes, and attend to the needs and expectations of family members. With technology mediating all forms of social connect, a teacher has to manage self as an individual, look after family as a critical caregiver and engage with school authorities as an employee. In order to understand how school teachers experienced online teaching during the pandemic and how their stories frame the relationship technology, work from home and well-being, we adopt sensemaking (Weick, 1995) as the theoretical lens.

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Meanings</th>
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<tbody>
<tr>
<td>Identity</td>
<td>Sensemaking is triggered when individual and/or organizational identities are imperiled due to internal or external flux (Weick, 1995; Weick et al., 2005). Both positive and negative perception of self-identity and/or organizational image affect how members interpreted the cues and took actions. The meanings that are created and sustained tend to be the ones that promote self enhancement, efficacy and consistency, and reflect favorably on the organization (Erez and Earley, 1993 cited from Weick 1995).</td>
</tr>
<tr>
<td>Bracketing</td>
<td>During sensemaking, people extract cues from the environment through noticing and framing. While the former refers to the activities of scanning, searching, filtering, classifying, and comparing cues, the latter refers to their interpretation. Context or local contingencies often determine what is extracted as a cue and how it will be interpreted. At individual level, people usually notice “things that are novel or sudden, people or behaviors that are extreme, unpleasant, deviant, unusual or unexpected” (Weick, 1995). At organizational level, cues are about unanticipated financial data, new taxes and regulations, market related predictions, disruptions of routine and emergencies among others (Ibid). Sensemaking recognizes the inadequacy of information available during any kind of ongoing organizational change and hence sanctions plausibility more than accuracy.</td>
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<tr>
<td>Enactments</td>
<td>The central premise in sensemaking is that people behave and take actions as response to some stimulus in the external or internal environment (Weick et al., 2005). And in doing so, often produce a part of environment, creating future opportunities or constraints. This reciprocal process is referred to as enactment.</td>
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<tr>
<td>Social</td>
<td>Enactments are considered to be social for multiple reasons (Colville et al., 2014; Maitlis, 2005). First, the enactments by an individual can be in the form of thoughts, feelings, behaviors or actions and are often contingent upon others (Weick, 1995). During decision making, the set of criteria has to be shared with others or be acceptable to them. Further, the decisions taken are usually implemented, or understood, or approved by others.</td>
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Table 1: Conceptual Elements in Sensemaking

Sensemaking is particularly apt as an approach since it allows us to examine, and rationalize actions taken in an uncertain and at times overwhelming environment as and when it’s happening. (Christianson and Barton, 2020; Code et al., 2020). As an approach it helps us to understand “the story” and contemplate “now what” (Stephens et al., 2020). Sensemaking puts forth that during a period of organizational change or crisis, regular organizational activities are often disrupted “people find themselves thrown into an ongoing situation and have to adjust with whatever they have” (Maitlis and Sonenshein, 2010, Winograd and Flores, 1986 cited from Weick 1995). In such situations of thrownness, people cannot avoid acting, even if its sometime against their will. More often than not, the actions are as response to situations that demand immediate attention and are not necessarily aligned with existing organizational strategy. While their actions affect the situation, people usually have no time to reflect on action taken or predict their outcome. Sensemaking calls for reflecting on past actions to understand how change happened. It therefore allows

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for rationalizing action after they have been taken (Weick, 1995). By directing attention backward from a specific ‘here and now’, meaning is created from what has already happened. However, the meanings discovered might be influenced by the present. Retrospective meaning-making thus helps to rationalize past decisions, actions and behavior (Jensen et al., 2009). As a theoretical lens, sensemaking provides us with six elements - identity, cues, noticing and framing, enactment, and social to understand how organizational change happens (See Table 1) (Weick, 1995; Christianson and Barton, 2020).

Within information system research, sensemaking can be broadly grouped into two overlapping sets. The first set consists of research related to organizational sensemaking (Mesgari and Okoli, 2019), where technology is considered as the trigger for organizational change (Heath and Porter, 2019). These studies have sought to examine how technology has been adapted in regular routines and work (Bansler and Havn, 2004; Henfridsson, 2000; Mishra and Agarwal, 2010), the reasons for their success (Tallon and Kraemer, 2007) or failure to fulfill user expectations (Baghizadeh et al., 2020; Zamani et al., 2019). A key insight is that sensemaking by users of new technologies or information systems shape how they use it, which in turn has implications. Focus has also been to examine how technology artifacts are created (Faraj et al., 2004), inscribed by beliefs of its developers and their features enacted by people. The key insight drawn using sensemaking perspective is that technology being an equivocal (Mesgari and Okoli, 2019), that can be interpreted differently by different stakeholders, and hence shape their design, adoption and use. The second set of research studies differ from the first in that they apply sensemaking prospectively. This is to discover the value and/or visualize possible applications of emerging technologies (Wang et al., 2019). Also included here are studies that look at change and learning within technology firms (Vlaar et al., 2008). A recent stream of IS research also seek to describe the development of information systems that facilitate sensemaking in organizations (Namvar et al., 2018; Seidel et al., 2018). This particular study contributes towards the first set of research studies. It examines how against the backdrop of much work-life disruption caused by an uncertain external environment, imposition of lockdown and restrictions on movement and meeting people, technology mediated work-from-home, blurring home-life boundaries and affecting overall well-being. (1080)

Data Collection and Analysis

Since narratives are considered central to the process of sensemaking (Brown et al., 2008), we adopted an interpretive research design to capture the lived experiences of school teachers during the pandemic. Data was collected using qualitative personal interviews and analyzed using a reflexive thematic approach (Braun & Clarke, 2006). The narratives recorded various aspects of the respondents’ work and home including familiarity with technology (Mason, 2002). At the time of data collection, social distancing guidelines constrained collection of data and triangulation by using additional techniques like observations and surveys. The thematic analysis of the narratives was both deductive and inductive in approach. As we familiarized ourselves with the data, Sensemaking provided the initial set of categories to organize the narratives into a story of the digital transition in schools as it unfolded during the pandemic. Simultaneously, we also sought to identify inductively the emerging patterns to understand the emerging relationship between technology, work and well-being. The respondents were initially approached through personal contacts and then snowballing technique was used to further reach out to larger group. The final sample for the study consists of twenty female participants working in schools that were not supported or managed by the government (See Appendix A).

The control on gender and type of school was due to two reasons. First, in India, women dominate private school education system as teachers and school administrators. Emerging commentaries indicate that as compared to men, working women faced greater work-life conflict and challenges of remote working (Milliken and Flynn, 2020). Due to lockdown, household support systems such as maids or house-helps were unavailable, forcing women to carry the primary responsibility of managing home chores, kids and their education, taking care of the elderly in addition to extra role demands of the school. The focus on women as respondents allow us to understand the issues related to work-life balance and well-being of employees in technology mediated work. Further, the sample was restricted to school teachers employed in private schools to avoid much variation in availability of technology infrastructure and competencies of
both teachers and students. While the schools catered to all socio-economic categories, majority of their students belonged to families who owned or could afford laptops, desktops or smartphones, which became necessary for attending or conducting online classes.

Findings
The thematic analysis of the narratives was guided by Weick (1995) sensemaking theory, that provided us with conceptual categories to comprehend the online teaching experiences of school teachers during the pandemic.

Bracketing
Bracketing tells us about the cues or key events that the teachers singled out during the transition (Stephens et al., 2020). While there is an overlap in the timeline, almost all teachers bracketed their experience of online teaching into four different phases, roughly corresponding to the announcements and extensions of the lockdown. Such announcements indicated the perceived level of uncertainty in the external environment. The first cue was the sudden announcement of 21-day lockdown on 22th of March 2020 by the Government of India. Although some schools were keeping a tab on the developing COVID-19 situation in the country and were expecting a lockdown, the suddenness of its imposition caught everyone off-guard.

“They were taking it lightly because at that time parents were also thinking that everything will be ok in few days. Everyone thought that once the schools reopen, we will start doing work. The children also had the attitude that once the school opens, we will do all the worksheet. But sudden it happened that this will take time.” (R9)

The initial response teachers and school administrators was that it was an unplanned holiday, and situation will return to normal in another 21 days. While there was complete halt in activities, school administration started figuring out ways to complete pending work related to examinations, assessments and preparation for the next academic year. In May 2020, the government of India again extended the lockdown by a month followed by partial opening of public places with social distancing norms in place. However, schools were not allowed to start and this was taken as second cue by school administrators and teachers. It meant that schools would possibly open only after the summer vacations and that they have to be prepared for any eventuality. As the number of cases kept on increasing, by end of July 2020 Indian became the third worst pandemic hit country in the world. The third cue bracketed by teachers was the realization around this time that online teaching will be the “new normal” for some more months, especially for children in primary and junior schools. By September 2020, teachers were fully prepared to handle any further disruption and other eventualities.

Enactments
Enactments by school teachers clearly followed the cues bracketed at different points in the timeline. As expected, majority of enactments were taken to address the need to maintain continuity of business and learning. The enactments overlapped and were often preceded or accompanied by intense emotions, indicating the possible link between work and well-being.

Reconnecting with students and parents
In some schools, for the first fifteen days, there was a complete halt in all activities and communication between school administrators, teachers and students. After the lockdown was extended for the first time, schools instructed teachers to start reconnecting with students and parents using Whatsapp. Class-wise, subject-wise contact lists and groups were formed and teachers started preparing and sending worksheets for revision, short videos and links. The intent was to keep students engaged and parents informed of their
plans. Schools with IT support and capability shifted and started teaching online at the first go itself. In either case, the sudden decision by schools to shift to online teaching generated much anxiety and stress.

“I would call myself a tech-savvy person. We have been using emails and different apps from last 2 years to communicate with parents. From the last few years, we have been using videos to generate interest in concepts but all this was happening when students were there with us. The realisation then, that we are expected to teach when the students are not physically there and screen is there between us, was actually difficult to absorb” R11 (An international school teacher)

“I had never heard about anything of this kind earlier. Chatting using mobile is different and the thought of bringing all the students together at a same time was quite stressful. I was worried whether I would be able to do it? I am not a computer person....” R7.

Learning to teach

The first challenge recalled by respondents was “how would classes be actually delivered – R1”. And to figure it out, teachers who were more tech-savvy were entrusted with the responsibilities to figure out the most appropriate platform by scouting the Internet for resources, attending webinars and seeking help from others who were already teaching. This set of teachers then trained others. Anxiety peaked during initial few weeks, as teachers also provided tech support to students and parents.

“I was confident until lockdown. Whenever I have talked to parents to access assignments and circulars through school’s app. However, for online classes there was hardly any time, no training. Lot of learning had to be done on our own to be able to start. Initially downloading the app itself was a challenge and then communicating it to the parents as if we are experts was crazy” R 11

Onboarding and Supporting Parents

In the process of administering and conducting online teaching effectively teachers also had to develop partnership with parents and elicit their support. Conduct of classes required parents to realise that Covid-19 situation won’t improve soon and there is uncertainty about reopening of schools. Most respondents mentioned that they had to really convince parents that online classes were the only mechanism available to maintain learning continuity.

“Parents were also aware how classes were happening in different parts of the world where online classes have started. Still we really had to put in lot of efforts to convince parents to seek their support” R3

Teachers also had to educate and convince parents to arrange digital devices for their kids. Parental apprehension that online teaching would increase the screen time for their kids was another big challenge. This required teachers to make themselves psychologically strong, and devote long hours to call parents and convince them to come onboard. They often had to bear ire and displeasure of parents.

“I actually became a tele-caller. Daily calls had to be made to parents that allow your child to join online classes. It’s planned for small duration, eyes won’t get affected and rather it would help their wards to maintain contact with teachers and start learning”. R8

“We have sent so many messages to parents using WhatsApp group. But still there were many parents who took time and few also decided it as a break year for their kids from school for a year. It was actually difficult” R5
Adapting to Parental Scrutiny

Stress got intensified when parents expected solutions for their tech problems from teachers, who themselves were struggling to learn the nitty-gritties. Respondent R6 teaches kindergarten, where all kids are accompanied by their parents. Teachers had to be on toes with updated knowledge as parents were looking up to them as experts, keeping their image at stake.

“First day, it actually took us more than 30 minutes to ensure that we have entered the right virtual class and all parents too are actually able to do so” R6

Arranging for data and devices

Personal investments had to be made by teachers to upgrade data connectivity and devices to have better control over classes. The teachers who already possessed laptops provided by the school were in more comfortable situation. Others had to buy one from their personal resources.

“I had to arrange Rs. 50000 in May, when we were facing pay cuts, to buy a new laptop for myself. Initially I tried taking classes using my mobile, it was actually difficult. Later when my son’s classes started, both of us shared it between us. I was conscious that I schedule my classes considering my son’s timetable too” R6

Almost all respondents shared that they spent money on improving the digital network infrastructure since all family members were at home and using data.

“There used to be at least 4 users of Internet at a time. Both my kids and I would have classes, my husband’s office meetings. Initially we faced network connectivity issues so we went for Wi-Fi upgradation. All these were initial preparations with some extra financial burden to enter a complete virtual world” R12

Creating work environment at home

The homes which once looked adequate for the whole family suddenly shrunk and became too small to accommodate everybody. The available space seemed inadequate for family-members to find their own quiet zone. School teachers too experienced similar problems in ensuring that along with content they also maintain a proper, well-organised and quiet atmosphere at home during their online classes.

“My two years old daughter has only now come to terms that when I am sitting with my laptop then I shouldn’t be disturbed. Initially to avoid her playing disturbing my classes, I had to shut the door of my room and she used to stand outside only and keeping crying. It was really difficult for me then” R12

They also had to ensure that everything looked neat and tidy where they were taking their classes such that parents didn’t sense them as casual.

“I had to be neatly dressed with a beautiful background while taking my classes as parents were always observing us” R7

Regaining Control of Classes

The fact that students of middle and senior classes are far more tech-savvy than their teachers also posed a big challenge for most teachers. Respondents shared the nuisance students created in the beginning to demonstrate their technological ‘prowess’, which disturbed their classes and caused mental and physical trauma. Teachers had to master technology in ways to combat unwarranted behaviour of students.

“Initially, students used to remove us from classes or used to put us on mute. I have faced this problem couple of times, it was really embarrassing. We had to take help from our
IT team to find solutions for all these problems. Eventually we could manage all these glitches but it gave us a real difficult time in initial days” R 13

Dilution in attentiveness of students during online classes dampened the enthusiasm of teachers, as they saw it as their efforts going in vain. The overall experience was that majority of students took online classes casually, without giving due attention and sometimes displaying unacceptable behaviours.

“My reading is that basically 15-20 percent students from most classes are really attentive and sincere, 40 to 50 percent are coming for attendance and learning with push from parents, and the remaining ones are enjoying their long holiday” R13

Managing Time and Becoming Flexible

Though working from home created challenges for teachers, the respondents also appreciated the flexibility that online teaching from home provided to them. They mentioned that it would have been difficult if they would have been asked to go to school and take online classes. Being at home gave them the flexibility to manage their time as per need.

“My day used to start very early in the morning. I used to finish all my household chores before 10 AM, so that after that all my classes and important meetings could be scheduled. This way classes also happened comfortably and home was also managed.” R 12

Conducting online classes also provided teachers with opportunities to continue working without risking the safety of their family to the pandemic.

“Though learning technology was difficult but I was okay with it since beginning as I knew that if I would have to go to school then there would be lot of risk not only for me but for my family too” R 6

Social

Despite the fact that the pandemic required everybody to maintain social distancing from each other and work from home, online teaching was an intensely social phenomenon. Respondents shared contrasting experience with family. At places, grown-up kids became technology trainers for their mothers.

“I am a middle aged person. Zoom, Microsoft Team were really difficult for me initially. Luckily my daughter was home due to lockdown. She helped me at every stage but I used to feel bad that I couldn’t spend quality time with her. There was just lot of work to be done daily.” R 13

Guilt for not being able to spend time with family at home, neglecting demands and unable to fulfil expectations was a common feeling.

“When most urban women in India had become masterchefs during lockdown, we hardly had time to give food on time to our family members. Classes, meetings took away lot of time. My husband after few days actually got irritated as I was hardly able to give any time to them especially when everybody was home.” R9

“My husband has actually raised eyebrows when I was found doing school work late in the evening and dinner for kids getting affected” R10.

Technology facilitated connect and also mediated all forms of interactions. The boundary between work and home blurred as teachers were required to be online and accessible 24 X 7 to students, parents and school. These changes have been really taxing for unmarried teachers.

“I am a computer teacher, so initially I have received calls from parents at as late as 11 PM too. My mother actually couldn’t believe that these were the calls from parents and actually asked several questions to me” R15
Online teaching demanded intense engagement, especially during the first few months resulting in stress and anxiety. It could not substitute as a place to share, engage, socialize or bond with others as enabled by the physical presence in schools. The support from colleagues and peers has been reported as a significant relaxing element by most respondents.

“Classroom discipline maintenance is one major area where the peer support has been really helpful. I have received lot many inputs from my colleagues whenever I have been in need for” R4

However, as the uncertainty over reopening of schools prevailed, Respondents also shared the vacuum and loneliness that they all are experiencing by working from home and missing talking and interacting with their peers while at work. R12 mentions

“Life has become routine and too boring. Every morning we get up, get ready and start taking classes. Hardly anyone to talk to and share.”

**Identity**

Identity appeared to be at the centre of teacher’s sensemaking about online teaching and it hints at why teachers made so much of effort for accepting and adapting to new technology and how they locate themselves in this process. In this line, the moral duty to teach, take up the challenge to learning new things and move on by supporting others appeared to be the key driver of continuing to be engaged with online teaching. It was the intrinsic motivation and commitment to support education that motivated teachers to continue learning over these months even if it was not close to a perfect physical class.

“Despite all difficulties, I wanted to continue at any cost. I was worried in March about my students. They would have lost the track totally if these classes wouldn’t have been started. So we had to think of some solution.” R3

As the lockdown progressed, teachers took on additional roles and found themselves juggling between work and home. (Rothausen et al., 2017) discussed how identity gets reshaped in the attempt to manage uncertainty prevailing around. Teachers while adapting to technology to manage disruption also sensed themselves emerging as learners, counsellors, technology support persons and content developer besides just the teacher with which they started this journey. Online classes have provided opportunity to teachers to learn new tools, operating digital gadgets, collating teaching material for sharing with students for effective learning and many more through online class experiences.

“I must admit that I have learnt a lot. I now know so many new things, making PPTs, making PDFs, uploading class assignments on Google Classroom, Google Forms for administering tests and evaluations, all these were not there in my knowledge earlier at all.” R12

Schools expected teachers to perform several new roles, such as calling parents for fees, informing parents about the attendance over phone calls, supporting parents and students by teaching technology to them. As a result, many teachers experienced embarrassment and emotional anxiety before calling parents. It was also physically draining since such tasks often gave sleepless nights in anticipation of verbal aggression from parents.

“Initial 3-4 months were really challenging. We had to be available for lots of meetings as curriculum was getting revised as per online needs, parents had to be convinced to allow their kids to attend online classes and then handling technology and over smart kids was really challenging”. R8

“Sometimes it felt really weird as when we used to call parents asking for fees, the way they used to argue felt as if they are doing a favour on us.” R12

In this transition process, teachers have felt their identity getting changed over these last few months. They see themselves as a multifaceted person. Respondents expressed that in the last few months they have taken on the role of a technologist besides just being a teacher.
"Initially we used to start our day with technology, reducing parents inhibitions about technology, ensuring we master our technology knowledge more than students so that we can conduct our classes without any major difficulties". R15

Some of them have evolved as a technology coordinator having spent time in coordinating technology between the students and the school’s IT staff. They have spent lot of time understanding and decoding the specifications of technology, arranging teaching activities, coordinating with colleagues, while managing home commitments.

“I would say that we actually became call-center executives for initial first month. Most of us were always on call. We were either coordinating with our team, talking to IT people about our problems while juggling with technology issues". R14

One prominent change shared by many respondents was that their salary suddenly became essential to support the family. Due to economic recession, businesses were not doing well and many lost their jobs. In such cases it was the teachers’ salary that supported families and helped in maintaining financial stability. Thus during the complete lockdown, many women teachers became the primary bread earner for their families. This experience provided a sense of confidence to most, coupled with the feeling of pride for their job.

“Whenever my family used to crib that I am not giving them time, my immediate response used to be that at least some income is happening because schools are working. It was really important for my family to understand that this is the way school job would be now” R6

Discussion

Set against the backdrop of the Covid 19 pandemic, this study is an attempt to understand the link between technology, work and well-being. We adopted sensemaking as a theoretical lens to understand how teachers experienced the transition to online teaching, as it unfolded. Figure 1 maps the emerging relationship between technology affordances and constraints, change in the work practices, and their impact on physical, emotional, social and financial well-being of teachers. Broadly, social distancing norms during the lockdown, and technology-mediated work practices together had bearing on the overall well-being of teachers. First, in order to take online sessions, teachers had to put in considerable about of time and effort to learn the technologies, adapt the curriculum for online deliver, prepare the teaching and learning materials, among other tasks. This increased their workload, and extended their working hours. Additionally, there was increase in household chores and related responsibilities. Together this led to blurring of work-life boundaries and thereby affected their overall well-being. Second, online teaching induced technology-mediated work practices that led to increase in job precarity. While technology facilitated continuity of business, and thereby enabled teachers to continue with their job. But technology also created affordances of remote monitoring by school administrators and scrutiny by parents. Except few, the salary of teachers in most schools was linked to the fees paid by the students. If the teachers don’t teach well, parents would hesitate to pay the fees. Thus, the onus of steering the transition to online teaching totally rested with teachers. Such challenging situations forced many teachers to readily align with the decision taken by the school authorities and adapt themselves quickly to new realities. Further, since most of the content were digitalized, and a resource database was created, there is a fear among teachers that if they do not keep performing well, they can be dispensed in the teaching and learning process.
Fig. 1: Emerging Relationships between Technology, Work and Well-Being
(See Appendix B for supporting evidence)
Conclusion

Technology played an important role in the digital transformation in schools. To reduce the level of uncertainty and disruption, schools adopted an ensemble of digital devices and technologies to connect with their students. While the full impact on learning and development is yet to be ascertained, the study reveals the efforts put in by the teachers to transform their teaching pedagogy, develop their technical skills and competencies, and manage conflicting expectations and demands of working from home, which eventually did leave a huge effect on their overall well-being. This study is an attempt to empirically explore in depth the link between technology and well-being by looking at how technology changed work practice. While, there are many studies in the context of institutions of higher education, our study focuses specifically on schools and teachers as employees. One key insight from the study is that the impact of its intertwining with work practices on well-being of teachers was mixed. On one hand it enabled continuity of business that allowed a lot of them to keep their jobs, but on the other it brought about lot of changes in the work practices that invoked insecurities and has implications on the nature of work in future and their well-being. Specific contribution of the study is to posit and examine empirically that issues of employee well-being are due to intertwining of technology and work. This research also contributes towards emerging research on sensemaking during pandemic (Christianson and Barton, 2020) specifically looking at the work-life experience of school teachers, who found themselves thrown amidst unprecedented change in their work. It demonstrates how the four key constructs of sensemaking – bracketing, enactment, identity and social enables us to understand the transitions the teachers and their school made during the pandemic. The pandemic not only compelled teachers to rapidly learn and adopt new technologies for teaching but also to re-think about their interactions and relationships with their students and employers. It provides evidence that during the pandemic, increased virtualization of work led to multiple role addition to teachers and they identify themselves in many different new ways (Ashforth, 2020).

A key implication for practice is that since online teaching gave the required impetus to teachers to upskill themselves and adopt technology at workplace, schools can leverage this experience of the teachers to make appropriate changes in instructional decisions and develop blended models for effective learning designs and delivery. However, schools also need to be aware of the ways in which the intertwining of technology and work increases the precarity in jobs and sense of insecurity among teachers, thereby impacting their overall wellbeing. Small changes in work policy like no communication after a certain time, periodic breaks, rationalizing the workload thru delegation, minimizing administrative workload, training teachers and scaffolding their learning thru institutional support will go a long way in maintaining the overall well-being and work-life balance of teachers.

References


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Appendix A: Details of Respondents

<table>
<thead>
<tr>
<th>Name</th>
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APPENDIX B: Evidence for emerging relationship between technology, work and well-being

**PHYSICAL WELL-BEING**

*Lack of Sleep:* “My phone used to ring at midnight, and my mother used to be very, very alarmed at who the hell is calling you at this very moment.” (R14)

*Physical Strains and Pains (Eyes, Hand, Shoulder and Back):* “Correcting in mobiles, it is really very painful. Actually, you have to correct each and every page like that… and then, we have to write the correct answer also. Sometimes if it is too long, then I have to type it.” (R11)

“I developed spondylitis within this lockdown and new normal” (R13)

“I am functioning as a robot. So, it’s like, I have to drag myself most of the time to pay attention to my health because we are so much occupied that we hardly have time. Earlier, when we used to go to school, we were so much encouraged by each other, we used to follow a certain diet, we used to keep ourselves physically fit, which is not happening now.” (R14)

**EMOTIONAL WELL-BEING**

*Technology Anxiety:* “… really it was a tough time. Actually, there was no time for us to understand the online teaching. We used to hear all these online classes, but we had never experienced. I being a middle aged, you know, I was not a computer savvy … And then, of course, there was a panic like, how to start with? How to go about it? How will we do it?” (R11)

“We did not have any formal training. I don’t know whether the students of this generation will ever understand that what a big challenge we faced. We were truly worried. But at that time, it was, how to start? We don’t have book. The students are not there.” (R13)”
“Most of us were comfortable with technology. It's like matter of day or two, some learnt it early, some took little more time. But yes we all were very apprehensive that how we are going to go about it and how these classes will go. How will our children react? Will they be able to maintain a connection with us?” (R6)

The necessity to be always online and respond immediately: “With the online classes, we had to be online throughout the day. We cannot be offline. Okay? WhatsApp coming in, you have to reply, you have to attend the sessions.” (R2)

Embarrassment of calling parents for paying fees: “As a teacher, the most difficult and uncomfortable part was calling up parents to pay the fees. Very uncomfortable. It feels good if we concentrate on teaching. The moment you call parents, you get personal. I am child's class teacher; I just can't put down the phone after just saying please pay the fees. If an admin from office calls, it’s a formal call and he can just hang up after passing the message. When we call, I will ask parents – how are things – how is business going. Whatever reason they have and when you get emotionally connected at that level.” (R1)

Apprehensions of parental scrutiny and its repercussion: “I will defiantly say all the teachers were very scared just because parents would be sitting next to the child and how are we going to teach the children when parents can be very judgmental. So, this was the main issue with the teachers that when you are in school you know how to handle this child in the classroom and children are also very different in front of their parents and in front of their teachers.” (R7)

“You can scold a child, you can tell a child to go out of the class, or if you’re not liking the behavior of a child, then still you can say something to that child. But here, because you know that you’re constantly monitored by a parent, you will not do so. So, parents are very happy with that situation that the teachers are really good. They're appreciating it.” (R28)

Remote monitoring by school administrators: “So I’m utilizing that free time in monitoring some of the classes.” (R18)

“In private sector, teachers do not tell the principal whether they are comfortable or not in teaching online. The principal in turn does not tell the management if things are comfortable or not. They have to be comfortable with given circumstances. There is no option there is no choice.” (R1)

Fear of Job Loss, increasing precarity of job: “There are apprehensions, We are told in every meeting to keep oneself safe, from harsh criticism by parents. Parents complain that teacher is not teaching properly, she is not writing on the board, she is not reading etc. etc. There is a check on each of us. Whenever a class is going on, anybody from administrator or principal can come. They record our teaching, click photographs, our performance is discussed in staff meetings. There is immense psychological pressure on us, if our class does not go well, then the whole school will come to know.” (R2)

Inability to control inappropriate online behavior of the children: “Whenever the question used to go to them, they used to mute me or what they – and they used to remove me from the class.” (R13)

“So initially, teachers actually faced a lot of problems, students joining in with other names, students playing music in the online classes, then, students scribbling on the screen which was shared. And most of the time it used to happen that the language students used to use was very, very, abrupt, very irrelevant. The teachers actually got humiliated most of the times.” (R14)

Inability to control or correct inappropriate offline behavior of children: “In school, a child behaves in a certain way, you cannot expect everyone to behave in the same way. We cannot correct them as we did in school. Children are bit formal in school; at home they no longer remain formal. Teachers in senior school are always pointing out that children are not properly dressed, not sitting properly, eating, talking among themselves. Yes, it is very difficult.” (R1)

Concern for safety and over-exposure of children to inappropriate content: “So, at times, it becomes very embarrassing for me also when there’s noises from the other side, because the children are listening, and their family members also must be listening, so I quickly mute that child and then, I tell them in the class, see, that why I tell you to mute your audio.” (R11)

Concern for not being able to connect with the students: “Yeah, that emotional connect is not existing now. Earlier in the traditional classroom, we used to get so much attached to the students, their activities. Like, being a young teacher, students usually, you know, come and open up in front of me. Like, ma’am, this is what is happening, like even the things which were disturbing them from the family end or from the classmates’ end, they used to discuss a lot many things. But now, it doesn’t happen.” (R14)

Guilt for not able to devote adequate time for home and family: “Initially, it was tiring because both my kids were also here, and my in-laws were also here. They are at home after very long time, and so their expectations is that mother will cook good food for them. And here I am always in class, so it was difficult at that time. And slowly and gradually, they also understood that I will first complete school related work and then give us food.” (R11)

Lack of Me Time: “But personally, somewhere I feel their privacy has been compromised. We have taken their personal me time. For example, day before yesterday, I was busy for the meeting for 6 o'clock in the evening and after that I had to take one workshop of the teachers on Saturday so I have to prepare for that workshop. While preparing glanced towards my balcony and could see my pet looking outside. I thought, he can afford to have me-time but I can’t afford. We have somewhere have compromised on our personal space and given to this cause.” (R6)

Increasing workload and Extension of Regular Working Hours: “So definitely the first challenge we had when Covid came was how to prepare all the recourses which can be used online. So, which means the whole lesson plan has to be modified, because we cannot do things the way we used to. For example, we do a lot of storytelling with our children, so we had to change the form and format of storytelling. For each and every storytelling created a ppts and pdfs.” (R6)

“So, we had to plan many such activities which were short, quick and very engaging for our children. So yes, there was lot of work for us as teachers. A lot was expected to be done in one day, and the regular working hours were never enough for us. So, we always had extended working hours for us.” (R6)

“And then, now, we have to prepare a day before for that, for the exercises that we have to give the next day and typing work has increased a lot.” (R11)
**SOCIAL WELL-BEING**

**Support from Parents:** I think this year parents have played an equal role. To us, they were like our partners. because when it comes to arranging resources and then when you are saying giving instructions to the teachers then giving instruction to the children so the parents are the very important part specially this year then always been but then this year being a special year different year so it’s like if the parent is not there it will be very difficult for us as teachers you know to communicate to our children because they are the mediators for the us right now. Right from the very beginning in arranging resources to taking out time for their children to sit with them as they are also working even after that taking out time make them do their work (R6)

**Lack of Support and indifference from Parents:** Initially Online teaching was actually received in a very bad way by the parents I would say. Yeah, if I talk about the numbers, out of 20, I would say hardly two parents would be there who will be appreciating the efforts and rest of them were like. And they hardly bothered whether the child is cheating. I would -- I have those answer sheets also where the children have taken screenshots from Google, and they have just pasted it over there, you know, attached those files and sent those PDFs to me. (R14)  (R14)

**Social Disconnect with colleagues:** Not only teachers, don’t you think all of us have become alienated. We have to manage all household related work, then we have to manage our jobs and school, so there is no time left to talk or gossip. (R3)

Ma’am, when I talk about the role of the colleagues, like we have actually started losing contact with each other because we hardly call up one or two people whom with – you know, with whom we have certain kind of work or anything. We do not actually call them at all, or most of them we just meet in school, then only we have a little bit of interaction. So the way we were working earlier as a complete team, now, it has turned to the individual levels. Like, we are not working in groups now, though, we will be maintaining a contact, but still, that would be only for the reason that, you know, achcha -- then we’ll have to something – we’ll have something to ask, then only we will be calling a particular person. We don’t talk to them, talking about, you know, as earlier it used to happen that we used to talk about the behavior of the students in the classes, if we were the common teachers going to the same classes, and we used to talk that how we can actually handle them. We used to discuss many things in school, but now, it is not happening, it has stopped happening. (R14)

**Emotional Connect and Bonding with Students:** What I’m feeling, in the classroom teaching the bonding between the students and the teacher is not in the online classes. That is lacking.

And that I felt with the children, like they are not that much attached to the teacher in the online teaching also (R11)

**FINANCIAL WELL-BEING**

**Investment for buying gadgets and upgrading internet connectivity:** Ans: Initially I used my father in laws phone because I knew my number is with the children and they will call me if there is any technical issue. I used to find teaching using mobile a bit difficult. In a laptop, one just needs to adjust the camera, in mobile, you need to keep adjusting all the device. If there is any vibration, it falls off. If there is a call during the class, its get disconnected. And its difficult to see all the children and control the settings. (R10)

**Salary cut:** Mam I would say initially it was all fine that they were paying it and after that between I think for 3 months it has been deducted a lot. Now they have started deducting it later on? Yes later on and then they have started giving again but then still it was not the full payment that we are getting. What is the argument made? No argument was made by any teacher senior teacher must have done that but in the primary wing no one. fees, the parents are not paying. (R7)