



Digital labor of school teachers and their well-being: content analysis of English-language dailies in India

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Abstract The concept of online and hybrid classrooms has penetrated mainstream school education in India during the recent COVID-19 pandemic. It has popularized digital technologies mediated teaching in schools and ensuing digital labor has affected the everyday routine activities of teachers. The sudden shift to the unfamiliar domain of digital labor has an impact on the well-being of teachers. This paper studies well-being through the theory of stress and coping with coping viewed through the lens of social systems theory. For this purpose, articles related to online teaching in the top three Indian English language dailies, namely the Hindustan Times, The Hindu and The Indian Express were analyzed using the Factiva database and content analysis research tool. Eighty-six articles were analyzed from March 2020 to July 2021 when online teaching commenced and continued into hybrid teaching in India. Novel sources of stress factors and their coping using resources among school teachers were identified using selective coding in NVivo software. It was found that only limited resources were provided at different levels of social systems to address the identified sources of stress factors. Finally, sentiment analysis of school teachers revealed negative sentiment indicating low levels of job satisfaction. Hence, it was concluded

that digital labor had a deteriorating effect on the well-being of Indian school teachers.

Keywords Digital labor · Well-being · School teachers · Stress and coping theory · Social systems theory · India

Introduction

In classic economics, the term ‘labor’ refers to the measure of work done by human beings and is considered to be the main component in the factors of production. With continuous technological developments, at present, the world is at the threshold of the fourth industrial revolution wherein artificial intelligence, autonomous vehicles and the internet of things are merging with human physical life (Schulze 2019). In this context, human labor is continuously transforming through the use of digital technologies at work leading to digitalization of human labor. During such transformations, on the one hand, robots and machines are substituting human labor with automation, especially the labor of middle-level workers leading to job polarization (Goos et al. 2014) and on the other hand, creating novel job opportunities through online platform-based work (Adams 2018), wherein both cases, labor performed using digital technologies is termed as ‘digital labor’. The latter

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concept of digital labor through online platform-based work has created novel employment opportunities around the world.

Labor is embedded in any value creation and education is among the many sectors that integrated digital technologies into their traditional labor for value creation. Here, teachers play a critical role while committing to quality education as the dissemination of knowledge and skills are executed in the frontline by teachers. The primary work of teachers is to disseminate information to students and help them learn. Their secondary work includes control over students and maintaining class decorum, evaluating students on their understanding of subjects, building a conducive relationship with students, peers, organization where they work and parents of students in addition to administration activities. All these activities of teachers involving labor remain affected while integrating digital technologies in education. In India, the concept of smart classrooms became prominent during the digitization of physical classrooms. It used audio, video, multimedia and images and made teaching easier and more effective (Roberts 2000).

With the already advancing use of digital technologies in teaching, the onset of the COVID-19 pandemic further accelerated the transformation toward digital labor. Online education became the buzzword even in the poorest of nations to ensure continuous learning among students while educational institutions were closed to control the spread of the disease. During this period, it was compelling to note that for the first time, mainstream school education shifted online on a large scale. Laptops, tablets and smartphones with the internet along with relevant software made virtual classrooms possible. Amidst limited digital infrastructure and teacher capacity in India, this concept of online education was enforced in both public and private schools across the nation.

From the above discussions, we note that digital technologies have penetrated school teaching in two different ways. In the former concept of smart classrooms, ‘technologies facilitated teaching in physical classrooms,’ whereas in the latter concept of online education, ‘technologies mediated teaching in virtual classrooms.’ As already noted, it was only during the COVID-19 pandemic, online education and subsequent online teaching were first introduced into mainstream school education. Hence school teachers were insisted to perform digital labor through online

teaching and this transformation from traditional labor has implication for the well-being of teachers. While policy discourse in the education sector on online education during the COVID-19 pandemic revolved around the digital divide among school students and hence learning loss and their decelerating well-being, the novel demand for digital labor and related well-being of school teachers during the same period is subdued.

In general, well-being of school teachers is the key to teaching and learning as a survey by the OECD reported a link between student well-being and teacher’s well-being (Organisation for Economic Co-operation and Development 2020). In this context, addressing the well-being of teachers should be the first step in school-wide well-being programs to promote student well-being. Also, well-being of teachers influences the effectiveness of teaching, teacher’s behavior and positive relation to school, classroom climate and pupil achievement (Mehdinezhad 2012; Roffey 2012). Low levels of teacher well-being result in attrition leading to teacher shortages which is a prominent issue in policy debates.

In India, the COVID-19 pandemic has impacted 2.7 million school teachers working across private and public schools. Well-being of this large population cannot be ignored easily as it would have a significant impact on the Indian education system. The National Education Policy 2020, took cognizance of the pandemic and similar recurring disruptions to physical classroom education and hence the consequential need for online and digital education. It expounds those teachers should receive suitable training and development to be effective online educators by creating high-quality digital content by themselves using online teaching platforms and tools. Simultaneously, it recognizes the need for further research before the implementation of these processes (Indian Ministry of Human Resource and Development, 2020). Also, with discussions on the concept of hybrid education or blended education in schools that combine online education materials and interaction along with physical classroom methods during post-pandemic, the need to study the well-being of teachers while performing digital labor becomes critical. Hence, this paper tries to elucidate the effect of digital labor during digital technology-mediated teaching, that is, online teaching on the well-being of school teachers in India.

Literature review

The term digital labor was first popularized by Tiziana Terranova in her influential article ‘Free Labor: Producing Culture for the Digital Economy in 2000’. This terminology, ‘digital labor’ as unpaid work found its way into the popular concept of prosumer to denote simultaneous production and consumption of information in social media contexts (Ritzer and Jurgenson 2010). In this line, Fuchs considers all value chains and all production processes that make social media usage possible as digital labor (Fuchs and Sevignani 2013).

Followed by unpaid work, the unorganized waged work supported by online platforms discussed digital labor in terms of asymmetries of information and power, control of the online platform and resistance mechanisms of its workers (Calo and Rosenblat 2017; Korczynski 2003; Atzeni 2016; Tassinari and Macarrone 2019; Gandini 2019). To broaden the idea of this narrowly conceptualized digital labor, it is productive to find linkages with the digital economy in general. A digital economy is defined as ‘that part of economic output derived solely or primarily from digital technologies with a business model based on digital goods and services.’ It consists of the digital sector along with emerging digital and platform services (Bukht and Heeks 2017). In this line of thought, it is only recently, that the work of affluent tech workers in the highly paid organized sector is recognized with digital labor (Dorschel 2022).

In all the above cases of digital labor in unwaged, waged unorganized sectors and waged organized sectors, value is created by the work done by humans through their interaction, either with facilitation or mediation of digital technologies. In the waged organized sector of educational service delivery, it is only during the COVID-19 pandemic that online classes and related digital technologies have gained prominence in mainstream school education. The corresponding economic output and value creation by teachers in this sector wholly depended on the mediation of digital technologies. Hence, the labor of school teachers during online teaching can be referred to as digital labor.

In the Indian context, when smart classrooms became prominent, the affluent private schools were the first to afford digital technologies for facilitating teaching in physical classrooms. At the same time,

teachers in government, government-aided and most private schools were not familiar with using such digital technologies as school infrastructure was limited. However, virtual classrooms and ensuing digital labor are new to both sets of teacher population in mainstream school education. It has indeed transformed the major routine activities in teaching as well as their organization, communication and collaboration with other stakeholders at work. This transformation in the activities of school teachers through digital labor has a relative effect on their well-being that needs research and consideration.

Considering the literature on well-being of individuals at work, a plethora of empirical studies have been conducted across disciplines. They segregate well-being under four major dimensions: cognitive well-being, subjective well-being, psychological well-being and social well-being. Cognitive well-being refers to the set of skills and abilities that individuals need, to work effectively (Horn et al. 2010). It also represents individual’s beliefs in their ability to perform (Schleicher 2018). Subjective well-being is a person’s cognitive and affective evaluations of his or her life (Diener et al. 2002, p. 63). Psychological well-being is concerned with an individual’s judgment regarding his or her continual happiness, satisfaction with his or her physical and mental health and how it relates to some psychosocial factors such as life satisfaction or work satisfaction (Garg and Rastogi 2009). Social well-being can be considered as sharing, developing and sustaining meaningful relationships with others (Sinclair 2021).

Factors that influence all the above dimensions of well-being among teachers include self-efficacy of teachers (Zee and Koomen 2016), teacher’s relationship with students (Split et al. 2011; Cordovo et al. 2019), teacher’s perception of school culture (Zhu et al. 2011), teacher characteristics and interpersonal teacher behavior (Petegem et al. 2005), availability of resources according to job demand (Granziera et al. 2021), job stress (Travers and Cooper 1996) and level of job satisfaction (Hellman 2010) among others. Of these numerous factors, job stress and level of job satisfaction have significant influences on well-being of teachers. Also, job stress and satisfaction are closely interrelated as they simultaneously influence each other (Stamps and Piedmonte 1986; Fletcher and Payne 1980; Landsbergis 1988).

Job stress is the reaction people may have when presented with demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope. Some of the causes of stress among school teachers include lack of equipment and training (Borg and Riding 1991), work intensification (Woods 1999), lack of support and time while teaching students (Kyriacou 2010), feeling of incompetence at work (Al-Fudail and Mellar 2008), work-life imbalance, job insecurity (Manabete et al. 2016) and sexual harassment (Hutagalung and Ishak 2012) among others. All these stress factors have been identified in the context of physical classroom-based labor among teachers in mainstream school education.

While integrating digital technologies in physical classrooms, poor infrastructure, inadequate technology, lack of sufficient technological tools, low teacher efficiency and teacher's negative perception of technology use, are the sources of some of the already existing stress factors at work among school teachers like lack of equipment and training and feeling of incompetence at work (Harrell and Bynum 2018). The effects of these stress factors are associated with increased depression (Schonfeld 1992), psychological distress (Punch and Tuettemann 1991), burnout (Kyriacou 1987), absenteeism (Chambers and Belcher 1992) and put a large emotional cost on teacher well-being. An increase or decrease in levels of stress factors can either negatively or positively influence the well-being of school teachers (Travers and Cooper 1996).

Closely aligned with the study of stress, are the models for coping with stress. Coping is a cognitive and behavioral effort to deal with situations appraised as stressful. Generally coping processes to deal with stress are influenced by personality factors, characteristics of the situation, personal and social resources among others (Lazarus and Folkman 1984). From the famous 'theory of stress and coping' by Lazarus and Folkman, the external or internal demands at work create stress and can be coped with the availability of personal or social resource according to the demand. Considering the resource components of personal and social resources featured in the above theory, the conception and availability of these resources can be derived from the 'theory of social systems' developed by Bronfenbrenner and used by social scientists in the mid-twentieth century. This theory understands an

individual as a product of the social environment at the micro-, meso- and macro-levels of that environment.

Applying social systems theory to the availability of resources to meet job demands, both personal and social resources are influenced by the social systems of an individual. Hence the demands at work by an individual are coped with the resources provided at the micro-, meso- and macro-levels of the work environment of that individual. The micro-level is the location of intimate family relationships, meso-level is the location of institutions and organizations the individual work and the macro-level is the location of society-wide factors such as culture, laws, government policies and similar elements. The more the availability and effectiveness of personal and social resources, the lesser will be the stress caused by external or internal demands and in turn, appreciates the well-being of school teachers.

Considering job satisfaction, it is something internal that has to do with the way how an employee feels about the influence of external factors at work (Hoppock 1935). As already stated, job stress and satisfaction are simultaneously influenced by each other and both are significant influences on well-being among school teachers. Hence interpreting the level of job satisfaction along the lines of emotions would help in reinforcing the results of job stress and coping. Low (high) levels of job satisfaction reveal negative (positive) effects on the well-being of individuals.

With the newly emerging digital labor of teachers in mainstream school education in India, the demand for work-related activities alters and this creates new sources of stress at work. In this context, with the already well-established theory of job stress and coping along with coping determined by resource availability through the social systems theory framework and by analyzing the level of job satisfaction, the well-being of school teachers is analyzed in this paper.

Research questions

Primary Question: What is the overall well-being of Indian school teachers involved in digital labor?

Secondary Questions:

- (1) What are the sources of job-related stress factors in the digital labor of school teachers?

- (2) Which of these job-related stress factors were school teachers able to cope and how were they able to cope?
- (3) Are school teachers satisfied with their job while performing digital labor?

Methodology

This paper follows the qualitative research methodology of content analysis from newspapers. Newspapers contain information about past as well as current events and they reveal several problems for analysis. It provides multiple points of view about a single issue. Studying articles published in newspapers is a valuable method to assess community opinions, advocacy and change. Hence researchers can use newspapers as secondary data for tracing the development of subjects in desired time context. Even when newspapers are not scholarly sources of data, the top English language dailies in India are reputed for their thoroughness and for publishing articles with reliability. Hence this paper analyzes these top English dailies to understand the well-being of teachers while performing digital labor. As they contain discourses of teachers, school head person, students, parents and media writers, they provide us with holistic contents for consideration and interpretation.

Content analysis is the research tool used in this study to analyze newspaper articles. Content analysis is used to determine the presence of certain words, themes or concepts. It is a method where the content of the message forms the basis for drawing inferences and conclusions about the topic of analysis in the content (Nachmias and Nachmias 1976). In this study, content analysis of newspapers under the theme of stress and coping among school teachers while performing digital labor through online teaching provides us with information on novel sources of stress and how certain stress factors were coped with using resources at different levels of social systems.

Data (newspaper articles) were extracted using Factiva which is an online database for global news and analyzed using NVivo software. Articles were searched using the keywords ‘COVID-19, school, online teaching, teachers’ between the period March 2020 and July 2021 spanning over 17 months from the time of enforcement of online teaching and

continuation into hybrid teaching in the Indian region. Using the above keywords, period and region, a total of 138 newspaper articles were collected of which 28 articles were repetitive and 24 articles were irrelevant. Finally, 86 articles were analyzed.

With NVivo software, the selective coding technique was used to code text separately according to sources for stress and resources for coping. Later, sources for stress were segregated under the already existing categories of stress factors and resources for coping were provided at micro-, meso- and macro-levels of social systems. The level of job satisfaction could be understood by interpreting how an employee feels about their job. Hence views, experiences and quotes of school teachers on online teaching in newspapers were coded separately for sentiment analysis. Sentiment Analysis processes textual data and determines whether data are positive, negative or neutral. In this study of digital labor during online teaching, if the processed data reveal a highly positive sentiment, then teachers have a high level of job satisfaction and on the other hand, its binary sentiment reveals a low level of job satisfaction.

Analysis and interpretation

The first section in this segment reveals the sources of stress factors during digital labor of school teachers segregated according to the already existing stress factors like lack of equipment and training, work intensification, job insecurity and sexual harassment. The second section contains coping using resources provided by different levels of social systems.

Sources of stress factors according to already existing stress factors of school teachers

Lack of equipment and training

With the newly enforced online teaching, teachers did not have digital technologies like smartphones, laptops or tablets with internet connection. Even if they owned such technologies, they lacked the training to use them for teaching purposes.

Since a language teacher in Mumbai did not know how to use the mute option to silence all students in an online class, she was exasperated

and said, ‘Many parents could be heard talking in the background while the class is on. This is very distracting. An entire domestic quarrel could be heard from a child’s home.’

The altering ecosystem of school teaching centering around digital technologies demands school teachers to reskill themselves to these new-age technologies. Lack of support to access digital technologies and meager knowledge of its operability were stressful to teachers.

Work intensification

Teachers, especially women were pushed into tremendous degrees of multitasking at home. On the one hand, they have to take care of their children and their studies, cater to familial needs and do all household chores simultaneously and on the other hand, they have to deal with the requirements of an unfamiliar domain of online teaching from their homes. Besides, teachers who were engaged in COVID-related duties, even when they did not take online classes, had to prepare worksheets for students.

Apart from subjects like Science, Arts and Languages, extracurricular classes like physical training, theatre, yoga, music, art and craft were also taught through online mode. Unlike normal classroom sessions, these lessons had to be tailored for online teaching. New modules had to be prepared for multiple classes and they were in turn quite overwhelming. It took more hours to prepare for each session and teachers could not afford to go unprepared even for a single class. It was time-consuming not only for lesson preparation but also for planning online assignments, viva-voce, activities and novel assessment methodologies.

According to an Economics student in an online class, ‘Even while using the chat box to type questions, it takes a while for the teacher to be able to get to each one which can be a little more time-consuming than when in school’.

During synchronous online teaching, teachers took live sessions and for asynchronous online teaching, videos were pre-recorded and sent via WhatsApp or posted on YouTube. In both these types of teaching, teachers had to create online materials like PowerPoint presentations and videos, compile notes, file daily

reports on what was taught, send homework on messaging apps, get doubts of students cleared and mark them on online assignments and examinations. Rather than focusing on the understanding of the subject by the students, teachers tend to be engaged in execution-level activities.

Some teachers take the class in shifts since only one smartphone was available per household and parents usually take it for work. Concurrently, as not all students could afford online education, teachers had to be in constant touch with these non-tech category students and their parents. In States like Himachal Pradesh, hardcopy of notes were provided to students who were not able to join online classes. In all these circumstances, according to most school teachers, only bright students performed well during online education. Below-average students found it difficult to cope with the subject and hence required personalized attention from the teacher. Pressurized with multiple activities exuding from online teaching, teachers are stressed at the end of the day.

Job insecurity

Apart from an increase in workload, in certain cases, there prevails a threat to the employment of school teachers. Even before the temporary closure of schools during the COVID-19 pandemic, some private school teachers were not paid salaries on time. In states like Maharashtra where online teaching was banned for classes up to the second standard, teachers in private schools were laid down by the school management. Also, contract-based teachers were denied to continue their work because of financial constraints by the school as parents did not pay school fees for their children.

It was noted that as a single teacher was able to reach a large number of students at any given point of time with the use of digital technology, the role played by teachers was undermined by school administration and they found it useless to pay more teachers and asked them to rejoin only when offline classroom-based education resumed. Temporary job loss led to economic insecurity and unemployment stress and hence change in the lifestyle of school teachers.

A contract-based teacher was working for a school for seven years. As per her disclosure, ‘We have run out of savings. On one hand, I’ve

lost my job, while on the other, the school my child studies in, has been forcing us to pay bus fees, tuition fees. We have been forced to make changes in our lifestyle and food habits.’

There were instances when private schools were shut down as parents withdrew their wards from these schools because of their financial constraints and teachers working in these schools had to search for new jobs.

According to a pre-school teacher in Mumbai, ‘We were told that the school is not in a position to sustain itself and is now shutting down. With two grown-up kids and my husband already having borne losses in the catering business, dealing with this news has been devastating.’

Sexual harassment

Another concern for stress while performing digital labor is the sexual harassment faced by teachers, especially women. During online classes in a Noida and Ghaziabad school, there were instances when schoolboys passed objectionable comments about female teachers using a digital pen and shared it with their classmates. Even when schools have reported the matter to the police, no legal action could be taken, because the boys were underage. Also, in most cases, schools preferred to sort out the matter mutually since it affects the reputation of the school. Such events are highly stressful to teachers, especially during the pandemic.

From the above analysis, digital labor has created novel sources of stress among school teachers. However, this could be coped with the right set of related resources. Over some time, from the commencement of online teaching and continuation into hybrid teaching, it has been analyzed from newspapers that certain stress factors were mitigated by addressing the sources of stress factors.

Coping with the identified stress factors using resources provided at different levels of social systems

Lack of equipment and training

At a micro-level, teachers themselves bought new digital technologies for online teaching. Also, nudged

by circumstances, teachers learned to use digital applications by themselves through trial and error. Furthermore, immediate family members came to their rescue. Senior teachers who were not familiar even with the internet and smartphones learned from the younger generation in their homes.

A parent of a student in Mumbai said, ‘Most teachers find it difficult to cope with online teaching. Lack of familiarity with technology forced them to seek help from their children to set up apps and deal with technical glitches.’

Considering resource availability at meso-level, the schools trained teachers to use software for teaching. Various online training programs, webinars and instruction on standard operating procedures were conducted by schools and this helped teachers to equip themselves to face the challenges of online teaching. Teachers were encouraged to use digital technologies available in schools after the lockdown was relaxed to create e-content for online classes.

A mathematics teacher in New Delhi stated, ‘Initially, we were completely dependent on WhatsApp groups and not everyone was available there. Gradually, we shifted to other modes of online classes, including Zoom and Google classrooms.’

At a macro-level, teachers were trained to use digital technologies for teaching both by state and national government. The Maharashtra State Council of Education Training and Research trained teachers to conduct online classes at its Pune studios. The Central Board for Secondary Education partnered with Facebook and provided teacher training on new online teaching software and methods.

Work intensification

Teachers reused their content prepared for online classes during the onset of virtual classrooms in the consecutive academic years. Hence, the time spent on content creation was minimized with the already available resource at the micro-level. As type of expectation from the digital labor was known, teaching became easier as time progressed with online teaching.

Maintaining class decorum was time-consuming during class hours, especially for primary standards as

teachers cannot physically control students. At a meso-level, the parents of these students came to the rescue. Parents cooperated in assembling students for a class on time, preventing distractions in their home environment and checking on their assignments.

Similarly, at a macro-level, respective state governments prepared e-content for subjects so that teachers can use them for teaching purposes during virtual teaching.

According to a Mathematics teacher in New Delhi, ‘the State Education Department formed an academic team of teachers to create content for different subjects for all government schools on a daily basis’.

Job stress on the well-being of school teachers performing digital labor

From the above analysis, it was inferred that among the novel sources of job stress in categories of lack of equipment and training, work intensification, job insecurity and sexual harassment, only the former two categories were coped with limited relative resources provided at different levels of social systems. Even when initiatives were taken at the school level to relieve teachers of the stress caused by sexual harassment while performing digital labor through warning and disciplining students, they were not apt measures to control this stress on a sustainable basis. As job insecurity was created by schools themselves, expected government-level interventions to abort such practices were not realized. Hence, it could be inferred that job stress has a deteriorating effect on the well-being of school teachers while performing digital labor.

Level of job satisfaction on the well-being of school teachers performing digital labor

Sentence level sentiment analysis is the process of detecting positive or negative sentiment in the language used in sentences (Feldman, 2013). Sentences on views, experiences and quotes by school teachers were coded to perform sentiment analysis. It helps in capturing the emotions of teachers with more granularity. Sentence level sentiment analysis of school teachers from top English language dailies in India

using NVivo software for more than a year revealed that negative sentiment overpowered positive.

As stated by a private school teacher, ‘There are pros and cons in virtual classroom. However, as a teacher I feel we have lost the personal touch. At the end of the day, we do not enjoy job satisfaction, which we did earlier.’

Hence, from the above teacher statement and overall sentiment analysis across a period of 17 months, it could be inferred that school teachers experienced low levels of job satisfaction while performing digital labor. This complements the result obtained from the analysis of job stress and coping. Finally, it could be concluded that the novel digital labor accorded a negative effect on the well-being of school teachers.

Discussion

While the analysis revealed that stress caused by lack of equipment and training was mitigated through interventions at all levels of social systems, in reality, the number of teachers who were relieved of this stress is meager. Most of the remote areas in India remain untouched by digital technologies. Also, at present, digital technologies have only filled the communication gap between the teacher and learner with a lack of innovation in teaching while using those technologies. Hence, further skill training is required for teachers to use digital technologies effectively. Schools should only focus on this training and not teacher replacement with technology as its utility alone cannot confirm quality education development. Additionally, government-level interventions are required to meet the financial need of schools during unprecedented critical situations.

Even when work intensification could be mitigated through personal discipline, female teachers require the support of their family members to smoothly balance household labor and digital labor during online teaching. Schools, as well as the government, should exclusively allow teachers to instruct knowledge and concentrate on student’s advancement rather than indulging in execution-level activities that are not related to teaching.

While pursuing digital labor, care should be taken by schools to educate teachers on digital security to

prevent sexual harassment of specifically female teachers. Even when faced with such a threat, redressal mechanisms should be formulated by the government on a national scale. As teachers play a very important part in building the future generation of the nation, their well-being transfers into well-being of the future generations. If they are stressed, students cannot be positive thinking good learners. Hence, apt and effective resources should be provided to teachers at all levels of the system to prevent as well as mitigate job stress for the well-being of school teachers while they continue digital labor through online and hybrid teaching.

This research methodology has certain limitations which could be addressed in further research to understand the comprehensive well-being of school teachers performing digital labor. For this study, data are collected from newspapers that represent the print media. As newspapers report what they want to present to the public, data beyond their acumen might be ignored. Other media like television, radio, social media might reveal varying results. Furthermore, this study was done only with English language dailies leading to deterioration in the well-being of teachers during digital labor. However, local language dailies might reveal different stress factors and coping mechanisms dissonant with the present conclusion on well-being of teachers. As this study is performed with secondary data, research with primary data would yield varying interpretations. Additionally, period chosen for the study is the initial days of online and hybrid teaching. The present conclusion might differ if data were collected from a later period. Most importantly, the COVID-19 pandemic-related stress might have a significant impact on the retrieved data. Therefore, further research using different methodologies is required in this area of study.

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Ethics approval There is no challenge to ethics approval as the analyzed data are from newspaper articles freely available in public domain without any direct human contact with the author

and informed consent would have been obtained by the newspaper at the time of original data collection.

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