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COVID-19 pandemic: Videoconference Fatigue

COVID-19 pandemic booms videoconference

The Covid-19 pandemic has significantly affected the international education programmes worldwide. QS (Quacquarelli Symonds), the world's leading provider of services, analytics, and insight to the global higher education, made a survey in 2020 entitled "How COVID-19 Is Impacting Prospective International Students Across the Globe" to discover how prospective international students in China, Indian, the European Union and North America responded to the coronavirus crisis, showing that more than half of the respondents' study abroad plan were affected, and the percentage was 66% among Chinese prospective international students. Due to the border lockdown policies in many countries, a great number of international students who have enrolled in the foreign universities are restricted to enter the country. Accordingly, the foreign higher education institutes have to use various online platforms to provide lectures for international students. Therefore, videoconference platform such as ZOOM is widely used to carry out instructional delivery and academic exchanges between international students and faculties.

Wilcox, J.R. (2005) defined videoconferencing (VC) as a type of online meeting that allows two or more participants from different locations to engage in live multi-directional audio-visual communication and collaboration (e.g., via screen sharing). The COVID-19 pandemic has induced a boom in professional videoconferencing since 2020 that elicited controversial academic debates about its pros and cons. One main concern has been the phenomenon of videoconference fatigue among international students. Nicola Döring, et al. (2022) claimed videoconference fatigue is the experience of fatigue during and/or after a videoconference, regardless of the specific VC system used.

Videoconference fatigue during pandemic

As Nicola Döring, et al. (2022) noted several VC systems are available today that work with wired or wireless internet access on computers and mobile devices alike (e.g., BigBlueButton, BlueJeans Meetings, GoToMeeting, Microsoft Teams, Cisco Webex, Skype, and last, but not least the currently most popular system Zoom). VC is typically used to communicate and/or collaborate within and between organizations in work, business and educational contexts, but private uses with family and friends are also common (Nicola Döring, et al., 2022). During the COVID-19 pandemic, instructional delivery for international students who stay in their native country greatly relies on VC in different forms.

Despite obvious conveniences of videoconferencing, international students expressed frustration or exhaustion after constant online instruction or meetings, which coined the term "videoconference fatigue". At the same time, researchers have started to investigate VC, particularly with an eye on the pandemic situation and so-called VC fatigue. Researchers from different fields have already published papers on the relevance and implications of VC fatigue in academic journals. For instance, Bonanomi, A. (2021) examined VC from medical perspective; Kirk, C.P. et al. (2020) studied VC in consumer communication field; Riedl, R. (2021) analysed the psychological effects of VC; Toney, S. et al. (2021) analysed the neuroscientific factors of VC; while Wiederhold, B.K. (2020) investigated VC in technological aspect. Prompted by the research boom in VC, Professor Jeremy Bailenson (2021) studied the psychological consequences of spending hours per day on these platforms, and made the very first theoretical, methodological, and empirical study.

What factors cause videoconference fatigue?

The first theoretical paper by Bailenson (2021) elaborated five distinct non-verbal mechanisms as causal factors of Zoom fatigue: (1) mirror anxiety triggered by the self-view window on the screen, (2) sense of being physically trapped by the need to stay relatively immobile in the small field of view of the camera, (3) hypergaze as the experience of having all conference participants' eyes staring at oneself during the whole meeting, (4) cognitive load related to actively producing readable non-verbal cues in front of the camera, and (5) cognitive load related to interpreting non-verbal cues of other meeting participants in their respective windows.

In addition, Nicola Döring et al. (2022) conducted an eight-phase conceptual analysis to identify and structure the main components and subcomponents of video conference fatigue. Four key causal dimensions were explored to find out more relevant factors of VC fatigue: (1) personal factors, (2) organisational factors, (3) technological factors, and (4) environmental factors.

Counter measures to establish healthy videoconference use

In times of the COVID-19 pandemic, the broad and frequent use of VC system has triggered prevalent problem of stress and fatigue among international students. However, according to Nicola Döring et al. (2022), a few measures can be applied to alleviate the negative effects of videoconference use, which are demonstrated below.

In terms of personal factors, people with good mental and physical health and the necessary VC skills should experience less VC fatigue. Moreover, good videoconference session management, shared communication norms and positive interpersonal relations among participants of a VC session can be a buffer against exhaustion, because the positive social experience re-energises VC participants.

Scheduling VC sessions wisely, keeping them short and allowing for enough breaks in-between eliminates main causes of VC fatigue. Furthermore, to keep the energy level of participants up, it is important to involve everyone actively in the interaction, to try to trigger participants' intrinsic interest and avoid energy draining with multi-tasking. Being aware of the degrees of freedom in managing VC sessions and of the benefits of organising wisely is a prerequisite of fruitful VC use.

Technological factors are at the core of videoconference fatigue. In fact, the technological mediation of interpersonal communication brings about a lot of stresses and strains. Research by Bailenson (2021) has noted that participating in a VC session requires increased visual, auditory, and vocal efforts as well as cognitive load of which when compounded, create exhaustion. Some of these problems could be eliminated or at least diminished with better Internet connectivity, improved usability of VC systems, more appropriate technical equipment (e.g., wide-angle camera, high-end microphone and loudspeaker) and innovative technology such as spatial audio and augmented reality features.

Last but not least, environmental factors remind everyone that VC sessions do not take place in a vacuum but in the micro-environment of the participant's workplace or home. Particularly in a working-from-home situation, VC fatigue can be caused by conflicting roles and demands of the work and home contexts. One way to fight VC fatigue could be to enhance coping with work -home interferences. In times of the worldwide COVID-19 pandemic, it is almost impossible to disentangle the exhaustion caused by pandemic-related disruptions of private and professional lives which are caused by inconvenient VC sessions.

Conclusion

Despite several advantages of videoconference in higher education sector, videoconference fatigue turns out to be a negative health outcome that should be taken seriously. To avoid short-term fatigue and long-term exhaustion or burnout, it is important to identify the main factors that contribute to VC fatigue. Focusing on VC fatigue issues does not mean to idealise the face-to-face instruction or interaction. Video conferences play an increasingly important role in modern world, under the COVID-19 pandemic background in particular. In this sense, what we can do is to optimise videoconferencing by reducing human fatigue while utilising the technology.

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Prepared by:

Junying Feng & Ting Wang
IPPTN Postgraduate student