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Spring 5-29-2021

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Recommended Citation

Goldthorpe, Nadine and Choudrie, Jyoti, "Exploring and understanding innovative digital collaboration platforms in the workplace: a qualitative, comparative study." (2021). *UK Academy for Information Systems Conference Proceedings 2021*. 26.

<https://aisel.aisnet.org/ukais2021/26>

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Exploring and understanding innovative digital collaboration platforms in the workplace: a qualitative, comparative study.



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Abstract

COVID-19 brought home working for UK workplaces, necessitating rapid adoption of innovative online digital collaboration platforms such as Microsoft Teams©, thereby presenting challenges to workforces with little prior experience of such digital technologies. This research in progress considers the impact on diversely aged UK workforces and their working practices. A longitudinal study of two organisations uses qualitative data collection methods. Data collected between May-August 2020 indicates neither group of interviewed digital natives or digital immigrants are homogenous in their skills or attitudes, and despite a rich collaborative feature set, use was limited to video conferencing and 'chat' at the time. Long term flexible working may be offered; however, a lack of suitable IT equipment must not be the reason by which a digital divide is created in the workplace. The next phase of data collection will take place once enforced lockdowns have ceased, to identify changes that have subsequently occurred.

Keywords: Homeworking, teleworking, digital collaboration, digital divide, digital inclusion, digital natives, digital immigrants, pandemic

Introduction

COVID-19 is a global pandemic that has affected the daily lives of individuals in a personal and work manner. This global pandemic of unprecedented proportion has led to preventative measures such as enforced lockdowns or curfews, that subsequently led to a rapid adoption of online digital collaboration platforms such as Microsoft Teams© (MS-Teams) and Zoom©.

Due to the preventative measures, the concept of 'remote' or 'teleworking', has become a norm in the last year. Governments around the globe were and are still recommending that workforces operate their working lives in the household and with COVID-19 preventative measures and their impact being a rare occurrence, this research team was motivated to conduct research into the impact of exogenous shocks on the workplace. For example, whilst this period of disequilibrium may make it possible for deep, new organisational forms to occur (Corbo et al, 2018), it is yet unclear whether home working will be a temporary or a more permanent form for workforces.

Furthermore, the researcher of this study was employed in an organisation that was implementing the online collaborative digital platforms and needed to identify and understand the impact of these platforms. Therefore, this study was motivated to overcome, or reduce the

research gap by forming the aim: *To explore, understand and explain the adoption and use of innovative digital collaboration platforms within diversely aged UK workforces.*

To ensure a different aspect to the organisation that the researcher was employed with, safeguard research rigour and reduce or eliminate any subjective bias, a comparative case study was selected. The initial case study is a higher education institution that the researcher is employed at. The second case study is a private sector, media organisation.

To ensure that a deep and rich understanding rather than just an identification of factors would occur, a qualitative research approach is employed. This implies that the data will be words based and collected using interviews and observations (Saunders et. al, 2019) The aim is also to ensure that a longitudinal perspective will be employed by conducting the study in three phases. The initial study was a feasibility study in March 2020 where construct and content validity were completed. For this, questions drawn from the literature themes of trust, teleworking and technology adoption were utilised. The questions were all open ended to ensure that probing could occur. Snowball, convenience sampling was used. The researcher's manager assisted the research by identifying certain individuals to assist with this study. The criteria were those who had adopted or were considering adopting the digital collaboration platform. They were drawn from the higher education institution.

For the second phase, a pilot study was conducted between May and August 2020 with 30 individuals who were drawn from various organisational levels. This was to ensure a broad range of perspectives were elicited (Appendix A). By this time, both organisations had licenced their entire workforce with the digital collaboration platform MS-Teams to assist communication and collaboration during enforced home working.

Data Collection and Initial Findings

To collect the data 30 interviews were conducted in total: 15 participants from 'Case A', a public higher education institution and 15 participants from 'Case B', a private organisation (Appendix B shows interview constructs). Participants were drawn from a purposive sample of administrative staff occupying lower, middle and higher graded roles as defined by their respective Human Resources Department. To ensure that the required numbers of participants were used, theoretical saturation was employed, meaning that data collection only ceased when categories were well developed and understood. Further, Townsend and Saunders (2016) recommended that qualitative studies using interviews should contain between 12 and 40 participants. The analysis of this study involved thematic analysis and open coding drawn from grounded theory. This involved the disaggregation of transcribed interview data against construct codes created in NVivo, adding new codes as they emerged from the data.

Initial findings of this study revealed that neither organisation was pre-disposed to provide flexible working as an acknowledged benefit, this being offered by prior arrangement and on a privilege basis only. Both workforces have shown resilience and the ability to provide business continuity, using the technology to varying degrees to adapt their working practices, however, despite a rich feature set including the ability to collectively edit documents in real time, only video conferencing and, to a lesser degree, instant messaging ('chat'), had been adopted en masse by those interviewed between May-August 2020.

Those in higher graded roles expressed some surprise that working from home has been conducted as successfully as it has; both organisations have maintained their core business activities. Secondary data from workplace surveys and focus groups subsequently confirm that many employees wish to continue working from home even when a return to the office can take place. Trust is recognised by all as critical for home working (Handy, 1995) with varying opinions expressed regarding the measures that might need to be taken to ensure workforce productivity in the future. Overall, there was no desire or intention expressed to implement monitoring software.

The lack of chance encounters (van Dijk, 2005) or serendipitous ‘water cooler’ moments, were identified as a potential driver to bring one workforce back into the office with the other having since been offered a ‘flexible location’ option: a hybrid approach wherein the working week can be split between office and home, subject to management agreement of local business needs.

Lack of adequate IT equipment has hampered some individuals with others experiencing ‘space poverty’ in their homes. It will be important that organisations willing to continue offering flexible working in a post-pandemic world, genuinely offer equal opportunities to all and do not inadvertently create digital divides in workplaces between the ‘there's’ and the ‘there-nots.’ A qualitative study conducted in 2020 during home working illustrates a change to power imbalances between those who previously worked from home and those who were physically present in the workplace (Cooper and Kurland, 2002 cited in Waizenegger et. al., 2020), suggesting that such power imbalances no longer exist, thereby providing greater workplace inclusion, including career opportunities. That study was cross-sectional, however, this research in progress is longitudinal, with a second round of data collection planned post lockdown, when participants either return to their offices or adopt a ‘hybrid’ approach of enforced homeworking. It remains to be seen what the longer terms outcomes will be, however, one working parent research participant acknowledged feelings of stress in anticipation that individual’s views could be marginalised if there is no physical workplace presence.

Initial analysis of pilot study results by age indicates that neither younger (aged 18-40) or older (aged 41-60+) workers are homogenous in their technology usage or behaviours, including adoption of different features offered by the digital collaboration platform, thus contradicting some extant views regarding the concept of ‘digital natives’ and ‘digital immigrants’ (Prensky, 2001 ; Rainie and Lee, 2006 ; Vodanovich et.al, 2010) . This study adds further empirical evidence to the study of technology adoption in the context of generational differences in the workplace (Jarrahi and Eshraghi, 2019). It is sited in UK workplaces, thus offering a novel perspective to academia, since much of the previous research on digital native/digital immigrant and digital divide concepts has either not taken place in the UK or failed to consider a workplace setting, missing the rich opportunities that study of a diversely aged workforce might offer.

New methods to communicate with the whole workforce have been discovered by both organisations, with Case B hosting a virtual ‘all hands’ event that previously required the whole workforce to travel long distances at considerable organisational expense. One interesting and potentially important observation is that a participant in Case B who confirmed a disability that affected their daily work, suggested video conferencing features allowed them a greater level of comfort and flexibility when undertaking their working practices.

Benefits of this study

Benefits of this study are to offer a contribution to research regarding the impact on diversely aged workforces of the mandatory adoption of digital collaboration platforms, including digital skills and adaptation of working practices, that should lead to an increase of digital inclusion in the workplace. This research will also offer a contribution to practice for organisations considering implementation of such technology, especially if a mandatory approach is under consideration.

Limitations of this study

Limitations of this study are that results pertain to the mandatory adoption of digital collaboration tools and cannot be generalised to voluntary adoption, technologies other than digital collaboration platforms, or other contexts.

Future directions

Analysis of pilot study data continues and a second phase of data collection using semi structured interviews and focus groups is planned to commence in 2021, assuming a return to work has been sanctioned by the UK Government. Collecting data at more than one point in time will contribute to an understanding about the sustainability of the digital skills that the age diverse workforce might have acquired during the adoption of the digital collaboration platform, and whether further features have been adopted in the later stages of innovation diffusion. Themes identified from the pilot study will be explored again and sub themes identified from the data analysis will be further developed. For example, digital skills and workarounds as a sub theme of working practices and organisational learning, structure and trust as the relevant aspects of organisational culture.

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Appendix A –Participants in Pilot Study

CASE A CASE B	Job Grade Range	Digital Native (DN) Aged 18- 40 or Digital Immigrant (DI) Aged 40+
A1	Higher	DI
A2	Higher	DI
A3	Higher	DI
A4	Higher	DI
A15	Higher	DI
A5	Middle	DI
A6	Middle	DI
A7	Middle	DI
A8	Middle	DI
A9	Middle	DN
A10	Lower	DN
A11	Lower	DN
A12	Lower	DN
A13	Lower	DN
A14	Lower	DN
B1	Higher	DN
B5	Higher	DN
B7	Higher	DI
B13	Higher	DI
B12	Higher	DI
B3	Middle	DI
B2	Middle	DI
B4	Middle	DN
B6	Middle	DN
B9	Middle	DI
B11	Middle	DI
B8	Lower	DI
B10	Lower	DN
B14	Lower	DI
B15	Lower	DN

Appendix B: Pilot Study Interview Constructs

Have you started using MS-Teams?

If no, please explain your situation

How did you feel when you first started using Teams?

What advantages have you experienced using Teams?

What disadvantages have you experienced using Teams?

How well do you think your organisational culture fits with using Teams?

Communication using MS-Teams

Does everyone in your group use the collaborative technology?

Do you contact the same group of colleagues now as you did before?

Do the same people contact you?

How would you describe the communication experience when using Teams?

Features within Teams – do they suit you?

Feature	Using feature? Y/N	Meets your requirement or changes needed?	Workaround found?
Online Meetings			
Chat			
Channels – posting messages			
Channels – uploading files			
Praising Posts			
Apps			

Teams and Working Practices

How well does Teams support your current working practices?

Have you adapted teams to suit your way of working or adapted your way of working to suit teams?

Please describe how you have adapted

Do you foresee longer term changes to your working practices as a result of the technology?

Do you think changes as a result of adopting Teams are for the better or for the worse?

Please explain your views

Have you created any 'fun stuff' in your Teams?

Do you participate in any of the 'fun stuff'?

Trust

How important is trust for home-working?

Now? (i.e. in current circumstances)

Later? (i.e. when there is no need to work from home)

What measures need to be in place to make sure people are working?

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