Project managers' coping with the digital transformation of communication in projects

Christine Unterhitzenberger[1] and Martin Rost[2]

[1]Christine Unterhitzenberger (corresponding author)

University of Leeds, Woodhouse Lane, Leeds, LS2 9JT, UK

c.unterhitzenberger@leeds.ac.uk

[2]Martin Rost

University of Stuttgart, Keplerstr. 17, 70174 Stuttgart, Germany

martin.rost@bwi.uni-stuttgart.de

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Abstract

Project managers are experiencing a significant change in the way communication is taking place in projects. This is mainly due to the digital transformation where face-to-face communication is substituted or complemented with communication through information technology tools or computers. A particular challenge in the temporary multi organisational environment of large-scale projects is the integration of various different digital workspaces. With our study we propose to focus on how the project manager deals with the difficult situations arising from this transformation and which coping strategies they develop. We utilise the hyperpersonal model of computer mediated communication to better understand the changes. In order to obtain rich data which will give us unique insights we propose to conduct a multi-method qualitative study with diary method, interviews and observations.

Introduction

Research on communication in projects has mainly focused on areas such as cross-cultural communication (e.g. Ochieng and Price, 2010, Collyer, 2016), stakeholder communication (e.g. Butt et al., 2016) or the role communication plays in projects (e.g. Lee et al., 2015). Effective stakeholder communication has also been highlighted as the most critical success factor in project management (PMI, 2013). However, little work has been done on the tools and technologies used to communicate in projects (Giffin, 2002) and the impact of information and communication technologies in project environments (Chiocchio, 2007). The rapid technological development has been identified as a major challenge for professionals involved in projects (Wilson et al., 2019) and hence, a better understanding of how project managers deal with this challenge is required.

In a wide range of industries projects are characterised as temporary multi organisations (TMO) or "project organizations that consist of a multi-disciplinary composition of participants employed by independent firms" (Lehtiranta, 2014, p. 640). This is because the implementation of complex change frequently requires the integration of specialised resources and interconnection of multi-disciplinary work from various organisations (Cherns and Bryant, 1984). The multi-organisational nature of TMOs provides specific challenges for the interaction between the different organisations – especially against the background that the development of a digital workspace is on the agenda for many organisations. This includes a vast variety of new technologies which are generating capabilities for working together more easily through cloud, digital experience platforms, video or artificial intelligence to name just a few (Mann, 2019). However, in multi-organisational environments different digital workspaces and technologies come together and need to be integrated for a predetermined time period. This also applies for the digital technologies used for

interpersonal communication within the TMO, i.e. information and communication technologies (ICT). The use of ICT for interpersonal communication is often referred to as computer-mediated communication (CMC) and encompasses any type of communication between humans through the agency of a computer (Thurlow et al., 2004, Stich et al., 2015).

Prior research has shown that CMC can cause workplace stress (Stich et al., 2017) through burnout and psychological stress (Mano and Mesch, 2010, Barber and Santuzzi, 2015), increased workload (Barley et al., 2011) or work-life conflict (Stich et al., 2015). With this paper we would like to focus on how the integration of different digital workspaces and technologies impacts on the communication in projects and how project managers cope with it. Hence, we developed the following research question: *How do project managers cope with the digital transformation of communication in temporary multi organisations?* We plan to answer this research question using a qualitative study (diary method, interviews) with project managers.

Theoretical background

Over the last decades communication in projects has been transformed through digitalisation (Chiocchio, 2007). As in other areas of life, communication in projects is now defined by multimodality, which means that interpersonal relationships in projects are built through a variety of media reaching from face-to-face meetings to phone calls to online modes such as emails, messaging or social media (Walther, 2011). CMC in this context is no longer defined as research into the technology of communication, i.e. the computer, but as research which focuses on the process, role and efforts of mediation (Carr, 2020). This means, it is about how the channel of communication makes a difference to what we investigate. We are interested in developing a better understanding of how the change from mainly face-to-face

or paper-based communication to a multimodal way of communicating in projects affects project managers. Therefore we use the theoretical lens of coping strategies (Lazarus and Folkman, 1984) to investigate this potentially stressful phenomenon under the specific contextual complexity of temporary multi organisations (Cherns and Bryant, 1984).

"Stress is conceptualized as a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and as endangering wellbeing." (Folkman et al., 1986, p. 572). Stress occurs, when there are situations in the external environment which are interpreted by the individual as difficult or threatening during a first appraisal (Lazarus and Folkman, 1984, Folkman et al., 1986, McCarthy et al., 2019). In a second appraisal individuals search for resources that could help them to cope with these difficult situations (Lazarus and Folkman, 1984, Folkman, 2013). If the situations cannot be sufficiently dealt with by resources available, stress arises (Lazarus and Folkman, 1984, Lazarus, 2001, Folkman, 2013). Coping processes are initiated as a response to the appraised demands of a given situation (Folkman, 2008). These responses can be classified in emotion-focused coping and problem-focused coping. Emotion-focused coping strategies are cognitive and behavioural endeavours that are aimed at reducing the emotional distress associated with it. Using problem-focused coping strategies individuals try to modify the stressor, involving both cognitive problem solving strategies engaging in activities such as planning and behavioural strategies for managing the source of the problem (Folkman and Lazarus, 1980, Folkman, 2013).

Excessive or wrong use CMC can be a reason for stress. Research distinguishes between e-mail CMC use and non-email CMC use (Lewandowski et al., 2011, Stich et al., 2017). E-mails in particular expand work into private life, they increase the volume of communication

and thus the workload, and they interrupt the work process and thus the concentration (Barley et al., 2011). But other CMC communication like use of social networks, instant messages or video conferences can affect work and private life in this manner, too. The extent to which stressors and stress arises from this depends on the extent to which the desired CMC differs from the actual CMC (Stich et al., 2017) and the level of support within the organisation and from colleagues (Lewandowski et al., 2011, Stich et al., 2017). In the field of CMC stressors can be workload, work relationships, job conditions or resources and communication (Stich et al., 2017).

Utilizing the hyperpersonal model of CMC as our theoretical lens we will attempt to explain how and why project managers potentially perceive it more stressful to communicate via CMC compared to offline interactions (Walther, 1996, Walther, 2011, Carr, 2020). Hyperpersonal suggests that the communication taking place through CMC goes beyond the usual level of personal interaction and hence, the hyperpersonal model of CMC proposes that four elements define how and why we process communication (Walther, 2011): 1) effects due to receiver processes: due to the absence of physical information (e.g. facial expressions, body language) the receiver of a message might over-emphasise the awareness of the message sender and fill in the blanks more or less favourable; 2) effects among message senders: senders tend to compose messages which depict them in a preferred way and highlights desirable characteristics; 3) attributes of the channel: CMC enables senders to compose advantageous messages and to make use of the ability to edit, delete and rewrite messages; 4) feedback effects: CMC creates feedback effects as it reinforces the dynamics of the previous elements. The hyperpersonal model of CMC will allow us to evaluate the changing process of communication in projects due to the digital transformation and hence, identify the stressors and difficult situations created through CMC.

This is particularly important as know that high workload and time pressure is a big challenge for project managers. This group is particularly affected by stress and burnout (Leung et al., 2008, Pinto et al., 2014, Peticca-Harris et al., 2015). Projects are often the research context for studies on virtual and inter-organisational collaboration and the participants in these studies are project managers or project staff (Lee and Sukoco, 2011, Peticca-Harris et al., 2015). Therefore, we developed a conceptual model which integrates these aspects (Figure 1). The digitally transformed communication in the TMO will be evaluated through the hyperpersonal model of CMC regarding the impact on the project manager and the project managers' coping with the stressful situation will be investigated.
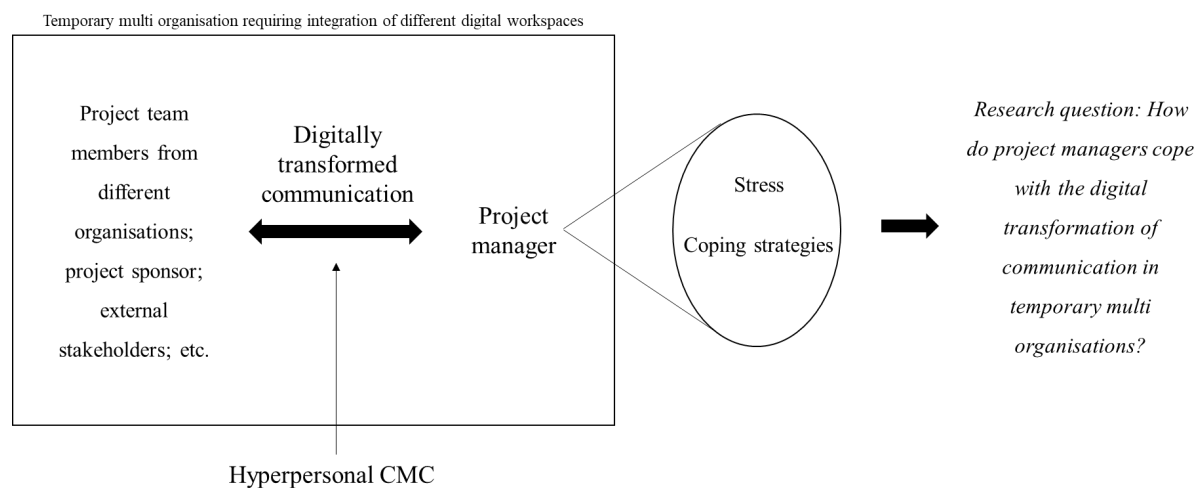

Figure 1: Conceptual model on project managers' coping with the digital transformation of communication in projects

Methodology

As mentioned above, our aim is to gain a deep understanding of how project managers cope with the digital transformation of communication in TMOs and hence, we will adopt a

longitudinal multi-method qualitative research design. Our main mode of enquiry will utilize a scarcely adopted qualitative method in management studies: the diary method, which will be supported by periodic interviews and non-participant observations. The diary method has the unprecedented potential to record time-sensitive and context-specific details of a phenomenon and to make use of the immediate personal witness (Hyers, 2018). This is different to case study or ethnographic research where data are collected by a third party and not directly and immediately reported by the individual who experiences a certain event. We will ask participants to write a solicited diary based on a research protocol which will allow them to record and self-report their feelings and behaviour in real-time over an extended period of time (in our case four weeks). It will enable us to capture the meaning and importance participants associate with certain events and to obtain their records, but also reflections on these events (Milligan et al., 2005). Our study will adopt the epistemological orientation of a phenomenological diary study which focuses on the lived experience of the participants and their interactions (Moustakas, 1994, Montgomery et al., 2009, Hyers, 2018).

The phenomenological approach will also guide our supporting modes of enquiry, i.e. the semi-structured interviews and non-participant observations (Creswell, 2013, Saunders et al., 2016). As mentioned above, the self-reporting period for the solicited diaries will be four weeks and we plan to conduct periodic interviews at the end of week 1 and week 3 to obtain a more structured and focused reflection on the phenomenon under investigation. As diaries as well as interviews are self-reporting methods we will also use periodic non-participant observations to minimise the bias inherent to self-reported data and to complement our data with researcher-reported data (Saunders et al., 2016). The observations will take place during week 2 and 4 and will comprise of shadowing the participants throughout a twelve-hour period (work and non-work environment) to record their behaviours and reactions.

Participants of our research will be individuals who identify as project managers in temporary multi organisations across different industries either through their job title or their responsibilities. They will be required to have at least two years' experience of managing inter-organisational projects in different industries and different cultural contexts. We aim to recruit 25 participants for this study and expect 20 to finish the full four weeks of data collection. We expect that this will be sufficient to achieve saturation, but if this is not the case we will recruit additional participants until saturation is reached. This will provide us with very rich data on the phenomenon and allow us to obtain a deep understanding of how project managers cope with the digitalisation of communication in TMOs.

Conclusion

With this study we intend to make a contribution to theory by undertaking one of the first studies on how managers cope with stressful situations caused by the digital transformation of communication in projects. This will provide us with an overview of the effects of the changing processes in communication and subsequently, help us to identify suitable strategies for project managers to deal with these effects. From a practical perspective, the findings of this study will enable organisations to put in place a suitable communication infrastructure for TMOs which supports project managers' coping with the effects of the digital transformation of communication.

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