The British Accounting Review

The Sociomateriality of Digitalisation in Nepalese NGOs

--Manuscript Draft--

Manuscript Number:	YBARE-D-21-00527R4
Article Type:	SI: NGO Digitilisation (closed to new submission)
Keywords:	Developing countries, Digitalisation, Nepal, Non-Governmental Organisations (NGOs), Sociomateriality

Corresponding Author:	Pawan Adhikari, PhD University of Essex Colchester, UNITED KINGDOM
First Author:	Pawan Adhikari, PhD
Order of Authors:	Pawan Adhikari, PhD
	Bedanand Upadhaya, PhD
	Chaminda Wijethilake, PhD
	Shovita Dhakal Adhikari, PhD

Abstract:	Drawing on the concept of sociomateriality, this paper investigates the digitalisation of Non-Governmental Organisations (NGOs) in developing countries during the COVID-19 pandemic. NGOs represent one sector in which the consequences of digitalisation have been particularly striking. Nationwide lockdowns, travel restrictions and strict government guidelines led to NGOs embarking on a transition towards digitalisation for their continuity and survival. Adhering to a qualitative approach, data for the study have been derived through semi-structured interviews with stakeholders, focus group discussions with beneficiaries and a review of documentary sources. Outlining both the benefits and consequences of digitalisation, the findings of the study illustrate the way how the NGOs' digitalisation has triggered changes in both their operations and modes of communication, altered their relationships with beneficiaries and other stakeholders, and transformed their identity. The key contribution made by the paper involves moving beyond the human-centred and techno-centric approaches to digitalisation, which dominate the existing accounting literature, and illustrating how the performance of technologies evolves in everyday life. In doing so, the paper delineates the role that the technology itself can play in shaping NGOs' day-to-day practices in developing countries.

The Sociomateriality of Digitalisation in Nepalese NGOs

Abstract

Drawing on the concept of sociomateriality, this paper investigates the digitalisation of Non-Governmental Organisations (NGOs) in developing countries during the COVID-19 pandemic. NGOs represent one sector in which the consequences of digitalisation have been particularly striking. Nationwide lockdowns, travel restrictions and strict government guidelines led to NGOs embarking on a transition towards digitalisation for their continuity and survival. Adhering to a qualitative approach, data for the study have been derived through semi-structured interviews with stakeholders, focus group discussions with beneficiaries and a review of documentary sources. Outlining both the benefits and consequences of digitalisation, the findings of the study illustrate the way how the NGOs' digitalisation has triggered changes in both their operations and modes of communication, altered their relationships with beneficiaries and other stakeholders, and transformed their identity. The key contribution made by the paper involves moving beyond the human-centred and techno-centric approaches to digitalisation, which dominate the existing accounting literature, and illustrating how the performance of technologies evolves in everyday life. In doing so, the paper delineates the role that the technology itself can play in shaping NGOs' day-to-day practices in developing countries.

Key words: Developing countries, Digitalisation, Nepal, Non-Governmental Organisations (NGOs), Sociomateriality

1. Introduction

This paper stems from our interest in understanding the digitalisation of non-governmental organisations' (NGOs') operations in developing countries after the COVID-19 pandemic. The digital transformation precipitated by COVID-19 has altered the way in which public and private organisations and NGOs operate and discharge their accountability relationships (see e.g., Mergel et al., 2019 for a detailed discussion on the terms 'digitisation', digitalisation' and 'digital transformation'). A wide range of benefits have resulted, many of which are outlined in accounting research (Agostino et al., 2022; Chua et al., 2021; de Aquino et al., 2022; Firoozi & Ku, 2022; Lino et al., 2021; Polzer & Goncharenko, 2021). For instance, digitalisation has enabled organisations to generate and mobilise real-time data which is crucial for rational decision-making, facilitate wider interactions with multiple actors and discharge plural and

new forms of dialogical accountability (Ahn & Wickramasinghe, 2021; She & Michelon, 2019; Belal et al., 2023). However, extant accounting studies examining the impact of digitalisation have almost exclusively been conducted in the context of developed countries (Polzer & Goncharenko, 2021; Kingston et al., 2023; Rana & Cordery, 2023), but the situation in many developing countries appears to be rather different, as only just over half of all households globally (54.8%), the majority of which are occupied by citizens of developed countries, have access to an Internet connection (see e.g., UNESCO, 2019).

Our research setting, NGOs, perhaps represent one sector where the consequences of digitalisation have been particularly striking. The outbreak of COVID-19 followed by the strict social distancing measures and travel restrictions imposed by governments forced many NGOs working in developing countries to alter their mode of operation as they could no longer deliver face-to-face services to their beneficiaries (Ahn & Wickramasinghe, 2021). The use of online social media platforms has offered certain advantages for NGOs; the ability to reach out to a broad range of stakeholders at a lower cost and improve stakeholder engagement, in particular, have been highlighted in prior work (Agostino et al., 2022; Bellucci & Manetti, 2017; Goncharenko, 2019; Hyndman & McConville, 2018; Kingston et al., 2023). However, these benefits have also been accompanied by unforeseen challenges, especially in developing countries where many people (almost half of the population) have poor Internet access and are digitally illiterate (UNESCO, 2019). Recent accounting studies also indicate that digitalisation may further marginalise certain user groups who are not in a position to reap the benefits of technology, mainly due to limited access and resources (Agostino et al., 2022). The sustainability of delivering services digitally and the quality of such services have also been questioned (Grossi & Argento, 2022).

Despite the burgeoning literature on NGOs' operations and accountability relationships in developing countries (see e.g., Awio et al., 2011; Dewi et al., 2019; Kuruppu & Lodhia, 2020; Uddin & Belal, 2019), little is known about the extent to which NGOs can use digital technologies in their daily operations, research gaps which this study intends to address. In particular, drawing on the concept of sociomateriality, we investigate how NGOs in Nepal have digitised their day-to-day operations and the everyday materiality of digitalisation by embedding the voices of beneficiaries. Nepal offers an interesting research setting, as it is often referred to as the home of NGOs; more than 50,000 NGOs have been registered with the Social

Welfare Council (SWC)[1], a government body responsible for facilitating social welfare activities and supervising the activities of social organisations and institutions. The essence of sociomateriality in delineating the everyday materiality of organisational practices and the way in which the social and the material are constitutively entangled in organisational life has been acknowledged in prior practice-based studies undertaken in multiple disciplines (Fenwick, 2010, 2014; Moura & Bispo, 2020; Orlikowski, 2007; Orlikowski & Scott, 2008). Applying the concept of sociomateriality therefore enables us to traverse beyond the human-centred (e.g., interaction with digital technologies) and techno-centric perspectives (technology effects) underlying the adoption and use of digital technologies by NGOs. In doing so, we contribute to the accounting literature on NGOs by delineating the role that the technology itself can play in shaping NGOs' day-to-day practices, altering their relationships with beneficiaries and other stakeholders and reconstructing their identify.

The remainder of the paper is structured as follows. Section 2 reviews the relevant existing literature on NGO operations and accountability with a particular focus on digitalisation and developing countries. This is followed by a detailed discussion of the concept of sociomateriality and its pertinence in understanding the application of digital technologies by NGOs in Section 3. In Section 4 we discuss the research method applied in this paper, while a contextual overview is provided in Section 5. Our empirical analysis is presented in Section 6, in which we discuss the adoption and uses of digital technologies both by Nepalese NGOs and their beneficiaries and the manner in which these digital technologies have shaped their day-to-day practices and reconfigured their identity and relationships with stakeholders. The final section offers a discussion and conclusions outlining the contributions of this study.

2. NGOs' operation and digitalisation: Reflections on current debates

NGOs have evolved into more trusted and cost-effective institutions than national governments in terms of delivering a range of services and welfare provision. Different categories of NGOs exist, including welfare providers, rights-based and advocacy focused organisations (see e.g., O'Leary, 2017; Unerman & O'Dwyer, 2006; Vakil, 1997), whose involvement is widely visible in the areas of healthcare, education, raising awareness, community empowerment,

[1] https://www.swc.org.np/

advocacy, human rights and responses to climate change, natural disasters and the COVID-19 pandemic (Cordery et al., 2019; Daff & Parker, 2021; Hall & O'Dwyer, 2017; Taylor et al., 2014). These organisations have fulfilled the function of addressing the needs of vulnerable and disadvantaged people that governments and businesses are unable to meet, and which are neglected within the wider social and political process. Despite some recent high-profile financial scandals and various other allegations (Agyemang et al., 2019), NGOs have generally enhanced their reputation on a global scale and gained access to local and international resources, enabling them to establish themselves as an important sector, positively affecting the lives of vulnerable and disadvantaged people in developing countries.

Working for disadvantaged communities, NGOs are required to engage with a broad range of stakeholders, such as funders, government agencies and beneficiaries, discharging multiple and varied forms of accountability relationships (Uddin & Belal, 2019). NGOs' operations and accountability relationships have therefore attracted significant interest from accounting researchers in the last few years (Agyemang et al., 2017; Cordery et al., 2019; Hall & O'Dwyer, 2017; O'Dwyer & Unerman, 2008; Uddin & Belal, 2019; Belal et al., 2023). A key issue discussed in the accounting literature concerns whether or not NGOs can balance the competing accountability demands imposed by 'powerful' donors and governments (also known as 'upward accountability') and 'powerless' vulnerable beneficiary groups (referred to as 'downward' accountability). More recent studies have also discussed the ways in which NGOs can improve their accountability to beneficiaries, as well as their attempts to promote adaptive forms of accountability (Cordery et al., 2019; Dewi et al., 2019; Goncharenko, 2019; O'Leary, 2017; Hall & O'Dwyer, 2017; Uddin & Belal, 2019; Belal et al., 2023). However, academic debate and discussions on NGOs' performance and accountability relationships have developed in a new direction during the pandemic, especially when the transformation brought about by digitalisation became inevitable for NGOs' continued survival. Not only have they had to shift to online service delivery, but they have also had to use multiple online platforms to maintain connections with their beneficiaries and continue their operations.

Digital technologies, such as the Internet and social media, have provided NGOs with a new type of platform through which to interact and engage more effectively, not only with their donors, but also with their other stakeholders (e.g., volunteers and beneficiaries) (Bellucci & Manetti, 2017; Goncharenko, 2019). Online resources and social media platforms such as Facebook, LinkedIn, YouTube, Twitter, Skype, Viber, WhatsApp, and Zoom, have become a

powerful mechanism which NGOs can use to share information, create dialogue and engage with their stakeholders (Agostino et al., 2022; Goncharenko, 2019). By using social media, NGOs can demonstrate their performance and publish accounting reports, as well as reaching a large number of people, including their beneficiaries, and interact with them at very low cost (Kingston et al., 2023). Stakeholder engagement is regarded as "… a powerful tool of dialogic communication, offering interactive mutual learning processes that are capable of promoting transformative action and social change" (Bellucci & Manetti, 2017, p. 875). More recently, accounting scholars have started discussing a new form of accountability, namely digital accountability (Agostino et al., 2022; Goncharenko, 2019; Polzer & Goncharenko, 2021), which could have a significant influence on the way that NGOs operate and interact with stakeholders. Implicit within digital accountability lies the potential to capture the voices of marginalised and disadvantaged groups by offering them a platform to express themselves and easy access to information and services.

What appears to be absent from the existing literature on accounting and accountability is any discussion about the materiality of adopting and using technology both by NGOs and stakeholders. Technologies are often designed and structured in a way that offers users the choice to decide when, why, where and how to use them for interaction (e.g., Orlikowski, 2000). This could have an influence on the types of services that NGOs offer and the ways in which they reach out to certain beneficiaries, while marginalising others. NGOs' services could also be understood and used differently by different stakeholders and thus may serve more varied purposes than intended. By addressing these issues, this paper aims to extend the scope of prior accounting work on NGOs, offering additional insights into the digitalisation of NGOs and its consequences in developing country contexts.

3. Theoretical framework: A sociomateriality perspective

Sociomateriality has evolved as a practice-based perspective configuring the notion of agency in everyday organisational life (Bispo, 2015; Law 2004; Le & Spee, 2014; Orlikowski, 2007; Orlikowski & Yates, 2006). The sociomateriality perspective has been adopted by scholars in the fields of sociology, organisational studies and science and technology as a post-humanist perspective decentring the human subject and exploring how the agency of non-human actors influences human actors' practices and organising (Latour, 2005; Orlikowski, 2007; Scott & Orlikowski, 2014). Sociomateriality has therefore offered scholars a new form of social and organisational an alysis that focuses on non-human elements which are central to what we

perceive as 'social' but have attracted relatively little attention (Moura & Bispo, 2020, p. 351). The usefulness of this perspective has particularly been emphasised in relation to understanding the changing organisational phenomena, for instance, adapting to new technology under precarious conditions (see e.g., Mortensen et al., 2019; Orlikowski, 2007; Orlikowski & Yates, 2006). In this regard, the application of sociomateriality has enabled us to shed light on different aspects of digitalisation in regard to Nepalese NGOs, their changing relationships with beneficiaries and other stakeholders, and their emerging identity.

The sociomaterial perspective is based on the idea that social and material phenomena are not two distinct aspects but are inseparably linked in practice (Orlikowski, 2007; 2010). For instance, using the metaphors of semiotics, strategy and patchwork, Law and Mol (1995) claim that materiality and sociality are in fact produced together. In a similar vein, Fuller's (2005) notion of media ecology has had a considerable impact on strengthening the core argument of sociomateriality. With reference to the materialist energies that are present in art and technoculture, Fuller (2005) introduced several critical perspectives such as the materiality and immateriality of media objects, the constituent binding of objects and relationships of materiality, and the affordance of the context. Meanwhile, Star (2010) proposes that the system of boundary objects and infrastructure should be studied in such a way that considers both standard and residual categories in order to comprehend their broader impact. As Leonardi (2012, p. 32) argues, "all materiality is social in that it was created through social processes and it is interpreted and used in social contexts", and "all social action is possible because of some materiality". More specifically, Orlikowski (2007, p. 1473) argues that "there is no social that is not also material, and no material that is not social". However, it has been claimed that much organisational work tends to overlook the way in which organising is bound up with material forms and, consequently, material aspects are often considered through human intentions, forms and direction. An underlying assumption of scholars who have adopted sociomaterality concerns that humans should not be given a privileged status as they are just one part of the social world. The 'social' is therefore an outcome of the interactions between humans and non-humans which shape and are shaped by each other and become fused inseparably in practice (Fenwick et al., 2011; Mora & Bispo, 2020). This has also resulted in some scholars perceiving sociomateriality as a post-humanist orientation (Fenwick et al., 2011).

The role of human and non-human interactions in the contemporary social world has been the subject of much discussion in prior literature through several interrelated theoretical perspectives that claim to explain the intensity of interactions (Bispo et al., 2018; Moura & Bispo, 2020; Orlikowski, 2007; 2010; Orlikowski & Scott, 2008). This has led to an understanding that sociomateriality does not merely rely on a single theoretical perspective, but that its core arguments are supported by multiple and interrelated theoretical approaches (Orlikowski, 2007). For instance, Moura and Bispo (2020) identify several theoretical perspectives reflecting the materialist-humanist continuum of sociomateriality, including new materialism, science and technology, actor-network theory (ANT), complexity theory, spatiality theory, cultural historical activity theory, and organisational aesthetics. Despite their differing orientations, the authors assert that these socialmateriality approaches are built on some common assumptions that acknowledge the dynamic interaction between human and non-human elements, the heterogenous union of technical, natural and cognitive elements, and the existence of a web of relationships.

For instance, the advocates of new materialism (or neomaterialism) argue that the construction of the daily life is impossible without the involvement of materiality (e.g., Coole & Frost, 2010). In contrast to the hegemonic view that agency is exclusive to human beings, the new materialism suggests that human is only a part of the network consisting of both human and non-human and organic and inorganic that together play a part in constituting the organisational life (Latour, 2005; Moura & Bispo, 2020).

Extending the conventional and structuralist perspectives underlying science and technology studies (STS), Orlikowski (2000, 2002, 2007, 2010) integrates sociomateriality into STS, highlighting the actions and interactions among people, technology and social in organisational practice. Focusing on the notion of constitutive entanglement, the STS driven by sociomateriality states that social and material aspects are inextricably linked and are inseparable in practice (e.g., Orlikowski, 2000, 2007). For instance, drawing on two empirical cases of using Google search engines and introducing BlackBerry phones, Orlikowski (2007) illustrates the constitutive nature of organisational practices that entangled within sociomaterialities. In responding to the questions of what, how, when and where to apply sociomateriality, Parmiggiani and Mikalsen (2013) identify three characteristics of sociomateriality: mutuality, performativity and multidimensionality. The concept of mutuality, which is also guided by the concepts of symmetry (Latour, 2005) and imbrication (Leonardi,

2011), is linked to the notion of constitutive entanglement between social and materials aspects. The performativity aspect of sociomateriality implies that the performance should be realised through the emergence of social practice instead of relying on predetermined conditions and elements (Orlikowski & Scott, 2008). The multidimensionality notion of sociomateriality echoes the conventional time and space dimensions that sociomateriality should be understood subject to instability and limits in the context (Parmiggiani & Mikalsen, 2013).

The underlying assumptions of sociomateriality are also central to actor-network theory. Influenced by structuralism, phenomenology and ethnomethodology, ANT explains how humans and non-humans jointly produce agency through heterogenous networks (Latour, 2005). Instead of following actors alone, Latour (2005) advocates that following actors' heterogeneous associations, connections and networks offers a means to understand the construction of the social. In turn, the emergence of society and social should therefore be understood as an ongoing process – as an act of performativity – rather than viewed as relying on predetermined conditions. Using the notion of symmetry, Latour (2005) also argues that both humans and non-humans have the same power of agency to shape and re-shape each other. As outlined by Moura and Bispo (2020), broader ideas about sociomateriality have also been reflected in and reinforced by complexity theory, spatiality theory, cultural historical activity theory, and organisational aesthetics, which are regarded as being on the humanist continuum of sociomateriality. Complexity theory proposes that both human and non-human actors play mutually dependent roles in complex systems and relationships but, according to Moura and Bispo (2020, p. 358), "the space is built and materialised by human action". Spatiality theory envisages space beyond the static environment for the actions of various actors but as a dynamic multiplicity organised continuously through simultaneous practices (see e.g., Fenwick et al., 2011). The fundamental logic underpinning cultural-historical activity theory suggests that social reality is a learning process in which material artefacts mediate human interactions. The sociomateriality aspects of organisational aesthetics have revealed that humans are likely to play a core role in social reality despite the presence of material artefacts. As reflected in these theoretical perspectives, the manner and the extent to which humans act and interact with material aspects of life is crucially important to exploring the connections between human and non-human agency in constructing social reality.

Orlikowski (2007) points out that materiality has mainly been studied in the organisational literature in specific cases of the adoption, diffusion and use of technology within and across

organisations. This stream of research has therefore examined the role of human behaviour, subjectivity and contextual influences in determining technology affordance - the problem-solving ability of a technology (Mora et al., 2021; Orlikowski, 2007; Suchman & Suchman, 2007). For instance, drawing on the human-centred approach, Poole and DeSanctis (1990, pp. 176-177) argue that, "no matter what features are designed into a system, users mediate technological effects, adapting systems to their needs, resisting them, or refusing to use them at all. The operative technology is determined by patterns of appropriation and use by human beings". Similarly, Mora et al. (2021, p. 1) argue that "the potential affordance and effects of a technology are mediated by the sociomaterial arrangements that users assemble to connect their goals to the materiality of technological artefacts and the socio-organisational context in which technology deployment takes place". Orlikowski (2007; 2010) states that different meanings are assigned to technology and people engage with it in different ways. Meanwhile, the techno-centric approach places particular emphasis on how technology leverages human actions in certain contexts (Orlikowski, 2007). The adoption of technology is therefore assumed to be exogenous, unproblematic and predictable, performing as intended and designed across time and space. However, Orlikowski (2007) argues that the notion of materiality has been either ignored or only loosely embedded in the discussion, as both human-centred and techno-centric perspectives have minimised the role of the technology itself. A key issue concerns the way in which technology has been constitutively entangled in everyday organisational life. It is therefore emphasised that neither the human nor the technology should be privileged, but rather they should be linked through a form of mutual reciprocation, given that the social and material are inextricably related (Orlikowski, 2007).

At outlined earlier, drawing on the sociomateriality perspective, in this paper we attempt to delineate how Nepalese NGOs and their beneficiaries have used digital technologies during the COVID-19 pandemic and the extent to which human and non-human agency has played a role in transforming conventional service delivery, stakeholder relationships and the NGOs' identity. The lockdown measures enforced by national and local governments imposed a number of restrictions on the delivery of in person services that were essential to cater for user needs. NGOs have attempted to continue delivering their services to beneficiaries via various digital online platforms such as WhatsApp, Zoom meetings, Skype, Facebook and mobile phones. It is therefore of paramount importance to explore the everyday materiality of organising technologies, which could bring forth in discussions additional approaches to understanding NGOs' activities and extending existing knowledge about the complexities

inherent in NGOs' operations, digitalisation and accountability relationships within developing country contexts.

4. Research methods

We adopted a qualitative research approach with a view to engendering an in-depth understanding of the digitalisation of NGOs' operations. Data for the study were primarily derived from two main sources – semi-structured interviews and focus group discussions (FGD). A range of participants were selected for the interviews including NGO owners, volunteers, executive directors and staff members, primarily programme officers, managers, and clinical and field workers, and government officials working at different levels. The main criteria for selecting the interviewees were their direct involvement in the NGOs' digitalisation programmes and other relevant operational activities carried out by the NGOs, including their response to the COVID-19 pandemic, and facilitating interactions with donors, beneficiaries and government departments. Our NGO representatives were selected from those NGOs dealing with the most vulnerable groups in society and the issues they faced during the COVID-19 pandemic, including gender-based violence and mental health problems, female entrepreneurship and empowerment, and sex and migrant workers (please see Appendix A for details of interviewees and their positions). The interview guide was prepared to cover all relevant questions based on a review of the existing literature on NGO operations, digitalisation and accountabilities.

Having obtained ethical approval, 20 in-depth interviews were conducted remotely via Zoom, Viber and Facebook Messenger, each of which lasted between 30 and 90 minutes. Prior to commencing each interview, the author(s) spent some time establishing a rapport with the interview participants, who were also informed that their participation would be entirely voluntary. During the interviews, the participants were asked a number of open-ended questions in a naturalistic manner, based on the interview guide, although the sequence of questions varied from one interview to another (Patton, 2002). In addition, in order to gain first-hand insights into the effectiveness of the digitalisation process, we also conducted two focus group discussions with beneficiaries of NGOs, each one involving five beneficiaries. FGDs are generally accepted as an appropriate means through which to "obtain valuable insights from the snowballing effects of the discussions" (Sekaran & Bougie, 2016, p. 122). The FGD participants were female entrepreneurs (beneficiaries of an NGO working group on women's entrepreneurship and empowerment) located in rural, semi-urban and urban regions

of Nepal (*Palpa, Rupandehi, Gulmi, Kaski, Morang, Itahari* and *Kathmandu*: please see Appendix B for further details). Each FGD lasted between 60 and 90 minutes and was conducted via Viber. Prior to commencing the interviews and FGDs, the participants were also assured that their anonymity would be maintained when their views were analysed.

All the interviews and FGDs were carried out during a one-year period (2020-2021). One of the co-authors who is of Nepalese origin was involved in selecting the 'information-rich' interview participants (Dewi et al., 2019) and facilitating the FGDs and interviews. Both the interviews and FGDs were conducted in the participants' local language (Nepali), as it was easier for them to express their views accurately in their native language, and recorded with their consent. Extensive notes were taken in cases in which the consent for recordings was not obtained. We also drew on some secondary data sources, namely newspaper articles (published in both English and the local language), publicly available information on NGOs and official government websites, press release documents and other media sources (e.g., local radio and television programmes). The collection of data from these multiple sources was mainly aimed at maximising the reliability and validity of the data, achieving some form of data triangulation and ensuring the accuracy of the findings (Silverman, 2005; Yin, 2009; Eisenhardt, 1989).

Using the a priori (provisional) coding approach, a manual thematic analysis was carried out to analyse the data collected (Strauss & Corbin, 1998; Miles et al., 2020). In the first stage, the co-author, who was involved in conducting the interviews, transcribed the interview and FGD recordings. Relevant quotes were then selected from the transcribed interview and FGD scripts and translated into English following a meeting with the other co-authors. This aided the development of a mutual understanding of the informants' responses and the subject matter, and facilitated the data analysis process. Next, the data were organised and structured reflecting on the recordings and close readings of the interview transcripts, hand-written notes and evidence obtained from the documentary sources. While the initial set of codes were derived from the review of relevant literature and the theoretical framework applied, some of the codes (especially overlapping and unrelated ones) were revised and the new codes were added as they emerged during the data analysis process. To ensure the reliability of the coding process, we discussed the coding rules and procedures, revisited the initial and revised codes and finalised the codes for further categorisation. Finally, following the iterative process (see e.g., Miles et al., 2020), we categorised the agreed codes and related key findings into the following broad themes: a shift in NGOs' conventional operational routines through digitalisation; transforming

stakeholder relationships through digitalisation; the impact of digitalisation on NGOs' performance; and their changing identities. Details of the key themes and main findings are provided in Section 6.

5. Overview of the research context

The rise of NGOs in Nepal appears to be linked to the changing stance of international organisations and donors during the 1990s (see e.g., Hopper et al., 2009), which saw them promoting the localisation of development resources through the use of communities working at grassroots level and NGOs. The significant rise in numbers of NGOs has led to the country developing advanced regulations designed to guide their operations and ensure that they discharge their accountability responsibilities. NGOs are required to review their registration annually, for which they need to demonstrate that an annual meeting has been held and that programmes, activities and budgets have been approved in the meeting. NGOs are also mandated to prepare details of their annual funding, including information about donors and other funding bodies, and submit them to the Social Welfare Council (SWC). In addition, all NGOs are subject to auditing, including social and performance auditing, as a condition of the renewal of their registration.

The SWC enacted a series of guidelines and recommendations to facilitate the operation of NGOs during the pandemic, thereby encouraging them to respond to COVID-19 more swiftly and effectively. All NGOs were asked to reallocate twenty per cent of their annual budget to COVID-related activities and responses (SWC, 2021). This enabled them to subscribe to the Internet and digital platforms such as Zoom. A fast-track procedure was enacted to approve NGOs' budgets and programmes relating to their COVID responses and preparedness. NGOs were also offered a grace period of six months in which to renew their affiliation with the SWC. However, some of the guidelines and requirements imposed on NGOs have been criticised and accused of stifling their efforts to respond to COVID-19. For instance, stricter reporting systems were imposed on NGOs, mandating them to maintain detailed records of their COVID intervention efforts and submit reports to the SWC on a weekly basis (SWC, 2021). According to a report by the NGO Federation of Nepal (2021), 87 per cent of Nepalese Civil Society Organisations (CSOs), the majority of which are NGOs, have reported a decline in their ability to deliver regular programmes, while the programmes of almost 140 CSOs have come to a complete halt. Many donors prioritised service-based rather than advocacy-based NGOs and

therefore the latter group of NGOs experienced even greater challenges in terms of continuing their operations. Nevertheless, the role played by many NGOs, especially in mitigating the impacts of COVID-19, has generally been appreciated (NGO Federation of Nepal, 2021). Given the lack of government support in many remote villages and at grassroots levels, NGOs appeared to be the sole providers and facilitators of several services such as setting up quarantining facilities, offering testing kits and running awareness campaigns and health facilities[2].

While the application of digital technologies by Nepalese NGOs, prior to the pandemic, was relatively limited, a report published by the NGO Federation of Nepal (2021) demonstrates a significant rise in the use of social media by Nepalese NGOs, particularly to disseminate and share preventive measures against COVID-19. It has also been claimed that almost one third of NGOs which were in operation during the pandemic switched to using digital technologies to continue their activities. Digital tools such as Zoom, WhatsApp, and mobile phones were widely used in facilitating a diverse range of activities, from providing psychological help and counselling to organising annual general meetings (AGMs) (NGO Federation of Nepal, 2021). However, digitalisation has also had negative consequences, as some NGOs were forced to change their areas of intervention and focus more on digitally literate beneficiary groups, thus further distancing them from vulnerable and disadvantaged beneficiaries and compromising their beneficiary accountability.

6. Empirical findings

While the pandemic forced NGOs to shift towards digitalisation in order to survive, they themselves were involved in identifying various technologies and online platforms that they could employ to continue their operations and deliver services to beneficiaries. Both the NGOs and beneficiaries therefore actively participated in determining the affordance of digital platforms and the technologies deployed. In turn, the move towards digital technologies during the pandemic has significantly transformed the ways in which NGOs have conventionally operated for a long period of time, altering the nature of their relationships with beneficiaries and funders and reconstructing their identity and future prospects.

6.1. A shift in NGOs' conventional operational routines through digitalisation

[2] https://www.swc.org.np/sites/default/files/suchana/FlashReport_infograph_July%2030.pdf

On 24th March 2020, Nepal imposed its first nationwide lockdown to slow the outbreak of the Coronavirus. This resulted in the closure of all non-essential services and manufacturing industries, while the accompanying travel restrictions prevented citizens from leaving and entering the country. Hundreds of migrant workers previously employed in various industrial sectors in India were stranded at various points along the border between Nepal and India without food and shelter (Aryal, 2020). The loss of jobs and income and the mental stress this caused, coupled with quarantine and travel restrictions, exacerbated the vulnerability of the local population. The evolving social and economic circumstances caused by the pandemic created a new space for many NGOs to expand their interventions through the use of digital platforms and devices (Brem et al., 2021; Guo et al., 2020). However, it did not prove easy to execute a sudden shift towards digitalisation, as the following statement by an NGO officer offering skills-based training to female entrepreneurs illustrates:

> *"As soon as the pandemic hit, we thought it will go away soon, so basically, we moved meetings with stakeholders online but waited to change the modalities of our programmes. However, in the second lockdown we were more experienced. Immediately, we started running our programmes, including local interactions, digitally."*

In the context of this emerging precarious environment, NGOs were also concerned about the digital technologies that were available to be deployed and that could help them meet their goals and objectives. Taking a proactive and precautionary approach towards digitalisation, several NGOs conducted surveys to identify the extent to which their beneficiaries were digitally equipped and had access to the Internet. Following analysis of the survey results, online programmes were developed, with alterations to some of the terminology used to reflect the introduction of digitalisation and online outreach sites. It was particularly important for NGOs to facilitate an uninterrupted dialogue and a two-way communication both with their beneficiaries and other stakeholders. The adoption of a more techno-centric perspective (Latour, 2005; Orlikowski, 2007; 2010) was evident from the outset, as the focus of the NGOs was on identifying an appropriate medium through which to leverage their programmes and activities. Commenting on the survey results, one NGO clinical worker involved in health-related interventions stated:

> *"We found out that more than 60% of our beneficiaries have smartphones and many have an Internet connection and computers. We also changed some of the terminology, e.g., from physical case management to virtual case management. Sometimes we used to facilitate a few of our programmes using local FMs, but phones and digital tools are*

found to be much more effective as we can immediately reply and respond to beneficiaries' queries, as well as our funders."

Various different material features of mobile phones and computers offered NGOs multiple possibilities in terms of delivering their services and expanding their outreach. For instance, NGOs were able to diversify their activities and promote inclusivity (Orlikowski, 2007; 2010). Along with live programmes, voicemail messages were also created and circulated through Viber and WhatsApp to address the increasing volume of calls to helplines and counselling services. Given that Zoom was a relatively new platform at that time, it proved to be more effective in attracting the attention of beneficiaries and users. Zoom enabled the NGOs to separate beneficiaries into groups based on their interests and the services they required by setting up different breakout rooms (e.g., Taipale, 2019). In that way, NGOs could also establish a more personal level of contact with their beneficiaries. In addition, changes were evident in the manner in which NGOs engaged with their other stakeholders, including the establishment of formal channels of communication with funders. The executive director of one NGO elaborated:

"*We found Zoom more effective in terms of achieving our objectives and we (staff members) are familiar with Zoom settings. Recently, we organised 12 webinars and workshops with the support of the WHO, targeting health and front-line workers. We use breakout rooms for different themes - service seeking behaviour, self-care, service provision in the community, etc. We can immediately set up a meeting with the donors if there are any accounting and reporting issues."*

However, differences could be observed in the ways in which NGOs used mobile phones and various digital online platforms such as Zoom to continue delivering their services. For instance, some NGOs prioritised reaching out to those beneficiaries who were served by them prior to the pandemic and helping them to become acquainted with the digital platforms. Providing appropriate training and improving the digital literacy of beneficiaries were therefore high on their agenda. Trust had to be restored in the newly emerging configuration as many beneficiaries were using mobile phones and Zoom for the first time and thus were hesitant about discussing sensitive matters via these channels. Another issue concerned whether it was financially viable for beneficiaries to afford these digital services. Many beneficiaries were therefore provided with financial support which enabled them to get Internet access. An NGO clinical worker involved in health-related interventions commented:

"We reallocated travel allowances and expenses to support the beneficiaries in using and getting connected to the Internet. We offered them training on using Zoom counselling sessions, including turning on their video, remaining muted when participating, etc. The idea was to familiarise them with these platforms and ensure that they were trustworthy and reliable."

For other NGOs, the focus was on engendering benefits from the changing social and organisational contexts in which the digital technologies and online platforms were being deployed. This led them to concentrate more on increasing their outreach work and service recipients and rationalising the deployment of resources. Additional activities and programmes that had not previously been possible were launched and collaboration was sought with other NGOs working in similar areas (Brem et al., 2021; Guo et al., 2020). In particular, many community members, who had previously been reluctant to participate in face-to-face meetings and physical counselling, found it convenient to connect with NGOs digitally. Sharing the experience of dealing with new types of beneficiaries, an NGO programme officer working in the area of gender-based violence stated:

"We had to deal with diverse beneficiaries – high-risk groups, migrants and community members. We now have 300 beneficiaries. We put them into different groups based on their service requirements. For instance, those who are subjected to domestic violence were placed in a separate Viber group and they were offered counselling and training on emotional well-being."

Another NGO field-level staff member working on mental health issues commented on the wider outreach achieved through the deployment of multiple digital technologies and platforms:

"*Deploying Facebook live, we covered many more service recipients. We also organised Zoom sessions for health workers dealing with returning migrants on stress management and self-care for a few hours for three days a week. This was done jointly with other NGOs and INGOs. These sessions proved to be very effective and there were several requests to continue running such sessions.*"

NGOs' utilised digital technologies and online platforms in such a way as to address specific objectives and the requirements of the changing social and organisational contexts in which they were operating (Mora et al., 2021; Taipale, 2019). For instance, the manner in which the

NGOs established a relationship with technology contributed to improving the digital literacy of their existing beneficiaries. In other instances, digital technologies and online platforms were used to increase the number of service recipients and expand the outreach of their activities. The adoption of digital technologies was therefore a matter of significant interest in the emerging configuration brought about by the pandemic, and the focus was mainly on the use and effects of these technologies and online platforms (Orlikowski, 2000; 2007).

6.2. Transforming stakeholder relationships through digitalisation

6.2.1. Evolving NGOs and beneficiary relationships

The digital literacy of beneficiaries promoted by NGOs had a significant influence on the reconfiguration of the communicative practices, resulting in a change in the way that they conducted their day-to-day lives (Orlikowski, 2007; Watermeyer et al., 2021). Apart from engaging with NGOs and obtaining services, they could deploy the digital skills they had acquired to use online payment methods (e.g., *e-sewa* and *Khalti*), participate in e-commerce to buy and sell products, set up virtual appointments and pay utility bills, school and college fees and access other online services (Guo et al., 2020; Mora et al., 2021). Thus, community members and beneficiaries achieved significant time savings and multiple affordances through the deployment of their digital skills (Taipale, 2019), as the following statement from a small business (chocolate) owner illustrates:

> *"I have been engaged with NGO A for many years. I found the online training facilitated the use of Zoom and Facebook more effectively than physical meetings. I was trained in how to set up our social media page to advertise our products. Without such training my business would have stopped during the lockdown. These days I sell my products to supermarkets and some of my products are also sold online."*

Using social media and digital online platforms for training and business purposes would have been beyond the imagining of many beneficiaries prior to the pandemic (Mora et al., 2021; Zammuto et al., 2007). Beneficiaries could also establish connections with other groups of beneficiaries who were forced to stay at or work from home during the pandemic. For instance, they could monitor their availability using the different features available on WhatsApp and Viber. This enabled them to set up support networks and establish a new digital community (Orlikowski, 2002; 2007). Commenting on the digital literacy that she had acquired, a beneficiary involved in the beauty parlour business stated:

"We were taught how to set up and use emails, Viber, web pages, etc. We could show this to our friends who could not read and write. We can even discuss and attend training together using one device, as we can easily check our availability through Messenger and WhatsApp and adjust our timings accordingly. We are acquiring digital skills and promoting digital literacy among us."

In some cases, such collective sociomaterial enactments proved to be more effective than those offered by NGOs, in that the beneficiaries could express their views and discuss their circumstances more openly. Everyday engagement and frequent communication restored trust between beneficiaries, enabling them to challenge the existing social and material limitations (Orlikowski, 2007) that they were facing without engaging directly with NGOs. For instance, there were references to how the collective voices of beneficiaries who had been victims of human rights abuses had changed communities' perceptions of them, as well as helping to gather strong evidence against the perpetrators to bring them to justice. As one beneficiary remarked:

"Due to frequent communication, we started trusting each other and this enabled us to discuss all the social and family issues that we were facing with each other. We found that many of us were having similar issues, for instance violation of our rights. We could then address these issues collectively and more strongly without going through NGOs and other organisations."

In particular, confidence building was an important performativity of digital technologies and online platforms, especially among female beneficiaries. They became aware of different types of counselling and training opportunities available to them via NGOs, many of which were directly related to female empowerment. More importantly, the material features of mobile phones and digital platforms could be utilised to improve their communication skills, social engagement and financial situation, having achieved technology affordance through attending the NGOs' training and counselling sessions. Their usage could be adjusted to suit the social contexts and arrangements. One beneficiary who undertook online training sessions provided by an NGO explained that:

"These training sessions offered by the NGOs have helped me understand the power of social media and digital platforms and boost my confidence. I could improve my communication skills by talking about and discussing things with a variety of different people, including NGO officers and other beneficiaries. I knew I was creative but never

had any space or confidence to use my skills and help the family finances. I have now established my own little fashion business."

Another beneficiary who was involved in a cosmetics business stated during the FGD:

"Before the start of online training I had limited knowledge about the importance of marketing, packaging, and keeping accounting records. These training sessions provided me with the opportunity to learn new skills. I attend the training even when I am doing other work or commuting. I switched off the video and listened to the conversation using my headphones. I do not want to miss out on anything."

The manner in which these digital technologies have led to the translation of accounting ideas into the everyday materiality of beneficiaries' lives is evident from the above statements. However, for many NGOs, the changes in communication resulting from digitisation also brought about new challenges for their everyday practices in terms of ensuring confidentiality, especially when they were dealing with issues such as mental health and sex work, which still carry a stigma. In some instances, beneficiaries did not feel comfortable disclosing personal information and discussing sensitive issues in front of their friends and family members. They were asked to find a private space so that they could communicate more openly, but often poor Internet connections prevented them from expressing themselves freely. Finding an appropriate time for meetings and counselling could also be problematic because beneficiaries' phones and other electronic devices were often needed by their children for home-schooling. One beneficiary, who received counselling service from NGOs, explained:

"I could not always express my issues digitally, as I am surrounded by family members and other community members. NGOs' services and counselling are not available in the evening when it is best for me. I find it more comfortable communicating with the WhatsApp group members and getting their suggestions about how to solve my problems, confront the community and return to normal life."

A number of services being offered by NGOs turned out to be inappropriate for digital delivery. For instance, several counselling and health-related services were viewed as digitally unfriendly, given the need for close surveillance and monitoring. One NGO volunteer commented:

"*We used to offer therapeutic interventions in our office and in community centres. We stopped it during the pandemic. We could not provide therapeutic interventions*

digitally mainly because, if something happens to the beneficiary during the session, we cannot take control of the situation."

In some instances, felt accountability (Hall & O'Dwyer, 2017; O'Dwyer & Unerman, 2008; O'Leary, 2017; Uddin & Belal, 2019) had to be compromised, as the NGOs were left with no alternatives but to withdraw the services they offered to vulnerable groups. An NGO programme officer elaborated:

"My work is concerned with offering counselling and empowering street-based sex workers. These people are completely left out, as we used to meet them on the street and offer counselling services. We have had to stop all our programmes and services and I feel very dissatisfied."

The unintended consequences of sociomaterial enactments through digitalisation also influenced the effectiveness of service delivery (Orlikowski, 2007; 2010). Given that a large proportion of people are still living below the poverty line in Nepal, Internet and digital services remain unaffordable to certain groups of beneficiaries residing in rural areas and deprived communities. Such beneficiaries could only be reached physically and by facilitating programmes and services in their localities, as an NGO programme manager explained:

"With the UN Women we have prepared a podcast targeting counselling of the marginalised population. I do not think the marginalised population have really listened to the podcast, although they have phones. They simply could not afford any additional Internet costs in exchange for digitalised services. They are only beneficial for those who have access to digital platforms and the resources to use them."

Mobile phones and other digital online platforms which had previously been used mainly for browsing social media such as Facebook were successfully operationalised for increasing digital literacy, promoting employment through the translation of accounting ideas and empowerment, and building trust (Mora et al., 2021; Orlikowski, 2007). However, as stated in prior accounting work (Agostino et al., 2022; Grossi & Argento, 2022), the further marginalisation of certain users, mainly poor and vulnerable groups with limited digital access, and the compromising of felt accountability were clearly evident. To some extent, the human side of the relationship between NGOs and beneficiaries could still be realised given that the beneficiaries engaged with NGOs in different ways, using the services they offered for multiple purposes and more dynamically. However, the digital technologies and online platforms

adopted and used also played an important part in the everyday materiality, given that the social and the material are constitutively entangled in practice (Orlikowski, 2007).

6.2.2. Continuity of the conventional relationships between NGOs and funders/donors

The shift towards digitalisation affected several aspects of the relationship between NGOs and donors. In many instances, digitisation and the adoption of technology by NGOs appeared to be a matter of interest only for certain funders. One problem faced by NGOs concerned ensuring that there were additional resources available for Zoom subscriptions, facilitating training and acquiring high-speed Internet connections and mobile data. The minimal support available to NGOs was also highlighted by government officials during our interviews. Previously allocated budgets therefore had to be revised, which proved challenging as it required approval from both the SWC and donors. The fact that the allocated budget for some activities and services remained unspent due to travel restrictions and the online delivery of services and counselling led to many NGOs engaging in budgetary negotiations with their funders. These negotiations often proved difficult, as a few NGOs were even asked to refund a proportion of their allocated budget, having failed to convince donors of the benefits of using digital platforms such as Zoom. The dialectical tension emerging between the NGOs and donors appeared to be more centred on convincing each other of the advantages that technology offered in leveraging NGOs' activities and reaching their beneficiaries (e.g., Orlikowski, 2007; Mortensen et al., 2019). As one NGO programme manager explained:

> *"Getting approval for budget reallocation was in many instances more demanding than instigating a digital transition. If it were only a switch to digitalisation, we would have done it easily and more professionally, but we had to do it in such a way that the funders would be convinced and continue their support."*

The conventional relationship with donors, that was built on upward accountability, therefore remained in practice and largely overshadowed the materiality of digitalisation. Prior to digitalisation, NGOs were more concerned about the numerical aspects of accounting, emphasising the recording and reporting of the total number of beneficiaries served and the number of training sessions facilitated in different regions and with different groups. However, these figures became immaterial as the process of digitalisation progressed. The compulsory nature of new obligations created by the materiality of digitalisation forced NGOs to reconfigure the nature of the evidence they had to provide as part of discharging their upward accountability (Orlikowski, 2000; 2007). For some NGOs, the focus therefore shifted onto the

qualitative and calculative aspects of reporting, for instance creating visibility, measuring the frequency of services used, and evaluating the performance of services being offered to beneficiaries (Miller, 2001; Miller & Rose, 1990; Robson & Bottausci, 2018). An executive director of one NGO commented:

> *"We cannot say our programmes have been effective at counting the number of Zoom participants. Our focus was on identifying behavioural changes among our beneficiaries attending the training and counselling services that we offered to them. For instance, after conducting training on e-sewa we counted the number of users and reported that figure. Now we try to find out how useful they find e-sewa, whether they are adapting to the online method of payment, how often they use such services etc."*

It was mentioned that NGOs were even asked to still run some of their programmes rather than reallocating their budgets for digitisation of services, which threatened their continued existence. In some instances, funders were accused of acting out of self-interest by refusing to provide institutional and IT support which could empower NGOs and strengthen the capacity of volunteers, as the following statement from an NGO owner exemplifies:

> *"Donors are self-centred, their mindset did not change during the pandemic. The funding they offered was related only to executing their programmes rather than promoting institutional support and capacity development through the adoption of technology. I know they also have accountabilities, but they also want us to be dependent on them forever so that we continue to patronise them."*

However, differences in the attitude of funders were notable as a few of them adopted a more flexible and human-centred approach towards the digitalisation of NGOs. For instance, certain programmes and activities were allowed to be digitalised, funding was extended to NGOs for another year and additional resources allocated for subscriptions to various digital online platforms such as Zoom and Microsoft Teams. An executive director of one NGO explained:

> *"We digitalised our paperwork and created a virtual database for our monitoring staff to report to our donors. Our accounting, reporting and auditing formats changed to support the database. Donors were happy as we were able to perform most of our approved activities on time. They also allowed us to extend some programmes and activities as long as we did not claim additional budget. Extra budgets were approved for subscribing to digital platforms."*

To sum up, the adoption of technologies by NGOs had previously been a phenomenon that was largely taken for granted by most funders. Although some donors adopted a flexible approach that tended towards human-centred and techno-centric perspectives, the manner in which digitalisation was bound up with NGOs' activities had rarely been a matter of interest. As a result, a narrow accounting-based form of control and numerical presentation remained central to the accountability relationships with donors, privileging upward accountability.

6.3. The impact of digitalisation on NGOs' performance and their changing identities

As sociomaterial practices, digital communication through mobile phones and other digital online platforms also changed the way in which beneficiaries interacted with NGOs and responded to the services and counselling offered by them. For instance, Facebook and other digital platforms are designed in such a way as to make social communication more attractive and frequent by offering multiple features, including live broadcasts. Whenever the events go live, users are alerted that they are about to take place. Beneficiaries could therefore potentially find such events more entertaining and useful than engaging with NGOs. Constant checking of the social media through the mobile phones became an addiction. A beneficiary shared the experience stating:

> *"My relatives/friends deliver live broadcasts when they travel to other places and temples, and I want to follow them. It is important for me to show my devotion to God to avoid a bad omen. I worshipped online (dhog). I only engage with NGOs when no other events are happening online."*

Setting priorities became crucial for beneficiaries due to the continual monitoring and extended electronic communication that they were subject to, as the following statement by a beneficiary serves to illustrate:

> *"I sometimes block my Facebook and WhatsApp for alerting me to events, so that I can concentrate more on NGOs. If I do not block them, I am inclined to follow them as soon as I get a message about them going live. They can monitor that I am online."*

Mentions were made that a few beneficiaries had become overly demanding in terms of expecting their regular needs to be catered for and internalising the perception that NGOs would be available at any time. They therefore wanted to communicate with NGOs in their spare time, after having used digital media for social and entertainment purposes, and at times

when their use of mobile phones was likely to be limited. For instance, one beneficiary elucidated:

> *"NGOs are online most of the time, so I want to contact them after I have communicated with my friends and family members on WhatsApp and followed their activities on Facebook/Instagram. Talking with NGOs usually takes longer, so I do not want to use my phone talking to them when other social events are happening."*

Another beneficiary added:

> *"It is important for me not to engage with NGOs in the morning, as I will be expecting a call from my son who is working abroad. I prefer to talk to NGOs when I've finished all my housework, rather than at the times that they propose."*

As outlined in the literature (Orlikowski, 2007), the dynamic, relational and contingent nature of the performance of digital technologies and platforms was evident in the views expressed by the informants. For instance, mentions were made how the services delivered and counselling offered by NGOs produced varying effects for beneficiaries at different times. While some beneficiaries perceived the consultancy and advocacy offered in quite general terms, as being applicable to everyone, others envisaged that these were tailored to the requirements of other beneficiaries and therefore less relevant to them. For instance, one beneficiary involved in running a small business (grocery) stated during the FGD:

> *"I participated in many online sessions, but these were not meant to provide us with specific skills. For instance, I understood how online businesses work, but there are practical hurdles involved in doing business - I do not have modern technologies, I do not have the skills to use machines and advanced technologies. I did not receive any other support."*

Another beneficiary shared the following concerns:

> *"Initially the counselling and training offered by NGOs were good but now I feel these are not helping me much. I can see that other beneficiaries/people are getting more benefits from talking and listening to NGOs."*

A shift in the interests of beneficiaries was therefore noted as a result of the overload of information. Although large numbers of people participated in many of the programmes and services facilitated by NGOs, holding participants' attention proved challenging. Because

digital online platforms were a new concept, beneficiaries were both motivated and excited about learning how to use these technologies during the initial stages of the pandemic (Orlikowski, 2002; Yeshua-Katz et al., 2023). However, this enthusiasm waned rapidly as the lockdown continued and the digitisation of services was conceived of as an aspect of the 'new normal'. Beneficiaries started to miss the immediacy of meeting someone in person and engaging in face-to-face communication with one another. Within the space of a few months, online training and counselling sessions became an additional burden, as the beneficiaries struggled to balance them with the demands of housework, childcare and other chores. Commenting on the declining interest on digital technologies and online platforms, one NGO owner stated:

> *"Initially there was a sort of euphoria about Zoom meetings both for us and our beneficiaries. However, now we are more cautious about using these. The feedback we have received from teachers was that although many attended the joint Zoom sessions, they were not really engaging. Video cameras were turned off and no one responded to the questions raised. They were probably suffering from Zoom fatigue."*

This view was further reinforced by the following statement from a beneficiary:

> *"There was an overload of information, meetings and counselling services by different NGOs. Not just me, but my WhatsApp group members also noticed that some information offered to us was either irrelevant or misleading. Instead of disengaging, sometimes we just turned on our iPads but remained muted."*

The adverse consequences of the performativity of mobile phones and digital platforms are undeniable given the way these are entangled with beneficiaries' everyday lives. A rise in the flow of false information or misinformation affected the delivery of essential services to needy beneficiaries (Apuke & Omar, 2021; Islam et al., 2020). For instance, a volunteer summarised the effects as follows: *"The digital context is sometimes beyond our control"*. Commenting on the darker side of technology use (e.g., Mortensen et al., 2019) one beneficiary stated:

> *"I sometimes do not feel comfortable browsing my social media and platforms for the online counselling services and other NGO programmes. There are always some abusive comments on my social media when people know about the counselling and there are always some people who are eager to stigmatise us and benefit from our vulnerabilities."*

In terms of NGOs' performance, digitalisation led many of them to reconstruct their identity as a service provider because they could now diversify their outreach and service delivery mechanisms. As outlined in prior work (see e.g., Orlikowski, 2007), they were forced to accept beneficiaries' altered expectations that NGOs were available all the time and could be contacted at any time, and to redefine the boundaries of their working hours, due to the blurring of the lines between work and non-work time. In particular, NGOs also reconfigured areas of their remit that they had overlooked previously due to the constraints that prevented them reaching certain groups of beneficiaries. An executive of one NGO further explained:

> *"It was challenging to move into digital space, but if we didn't change our modalities, donors would have left us. We could now reach multiple beneficiaries, even the migrant groups, and deliver our services. We have transformed ourselves into more of an entrepreneur than an NGO."*

Mentions were also made that many conventional NGOs had identified themselves as proactive and innovative institutions who had successfully embedded technologies in their operations as part of their response to precarious situations. However, NGOs' interactions with funders continued to be influenced to a large extent by the number of beneficiaries they served rather than the quality of services offered. During our interviews, many NGOs therefore expressed an interest in pursuing the dual approach of conducting their activities and delivering services both digitally and in person in the post-COVID era. Several NGOs were in the process of formulating strategies to continue operating the digital online platforms to provide services such as quality assurance and training, while planning for counselling services in the community to be delivered in person. Hybrid operations that utilised elements of digitalisation as well as a physical presence appeared to offer a means through which to address the collective expectations of both donors and beneficiaries, as the following statement from an NGO owner illustrates:

> *"We will continue using digital space, but we will not work fully virtually as we did during the lockdown. Our aim is to leave no one behind regarding HIV interventions - so we will be continuing to run virtual as well as physical outreach programmes for those who do not want to meet face-to-face."*

Our findings show that the performativity of mobile phones and digital platforms have determined how and when beneficiaries will use counselling and other services offered by NGOs. It could therefore be argued that the transformation of NGOs' everyday practices can

largely be attributed to the material features of digital technologies. As discussed in prior work (Latour, 2005; Orlikowski, 2000; 2007; Glaser, 2017), this could be envisaged not merely as a matter of technology interacting with the social, but as an example of the constitutive entanglement of both human and non-human agencies.

7. Discussion and conclusions

Drawing on the concept of sociomateriality (Fenwick et al., 2011; Mortensen et al., 2019; Orlikowski, 2007, 2010; Orlikowski & Yates, 2006), in this paper, we have illustrated the digitalisation of NGOs in Nepal. Discussions about NGOs' operations and accountabilities, the scope of which was largely focused on the challenging contexts in which they operate and the multiplicities of incompatible and heterogeneous accountabilities they encounter (see e.g., Agyemang et al., 2017; Cordery et al., 2019; Dewi et al., 2019; Uddin & Belal, 2019; Belal et al., 2023) have been widened after the pandemic to cover NGOs' digitalisation and the discharging of digital accountability (Ahn & Wickramasinghe, 2021; Goncharenko, 2019; Polzer & Goncharenko, 2021; Kingston et al., 2023; Rana & Cordery, 2023). Nationwide lockdowns, travel restrictions and strict government guidelines led NGOs to embark on a transition towards digitalisation in order to ensure their continuity and survival. The challenges associated with digitalisation more generally, and the benefits and limitations of digital transformation, have been outlined in the accounting literature both from the human-centred and techno-centric perspectives (Orlikowski, 2007), which to a large extent are applicable to NGOs (Agostino et al., 2022; Goncharenko, 2019; Grossi & Argento, 2022; Polzer & Goncharenko, 2021).

Empirically, we have added to these emerging studies on NGOs' digitalisation by demonstrating the challenges that Nepalese NGOs have encountered in their digitisation, their evolving relationships with beneficiaries and other stakeholders and the reconstruction of their identity. Studies delineating such wider implications of NGOs' digitalisation in the context of developing countries are lacking. As our findings demonstrate, the shift towards digitalisation was not without challenges for Nepalese NGOs. As discussed in extant accounting work (Chu & Luke, 2020; Goddard, 2020; Kuruppu & Lodhia, 2019, 2020; Uddin & Belal, 2019), several NGOs were obliged to continue to comply with upward accountability, as the materiality of technologies was apparently a matter of little concerns to some funders (Hall & O'Dwyer, 2017; O'Dwyer & Unerman, 2008). Institutional support and incentives for strengthening the digital capacity of NGOs was also limited. In addition, new compliance requirements imposed

on NGOs (e.g., shorter reporting time frames) by the SWC have, in many instances, further complicated the delivery of NGOs' services to their beneficiaries. The conventional accounting-based relationships between NGOs and their funders therefore remained largely unchanged, although in some cases, the focus shifted from numerical to qualitative aspects of reporting, for instance reporting the impact of training and counselling services offered to the beneficiaries rather than just the number of beneficiaries served.

However, rarely have accounting studies investigated how the changing practices of entities, including NGOs, resulting from digitalisation, are bounded by materiality. For instance, the adoption of digital technologies by NGOs has been contextualised with reference to the pandemic and the importance of digitalisation has been asserted in relation to coping with the resultant precarious situation and the 'new normal' constructed by the pandemic. The human-centred and techno-centric perspectives underlying digitalisation have led to the adoption and use of technologies by NGOs being envisaged as an 'incidental' or 'intermittent' aspect of their operation (Orlikowski, 2007, p. 1436), thereby undermining the importance of understanding digital materiality. Our attempt to draw on the concept of sociomateriality has enabled us to illustrate how the adoption and use of technology has been intrinsically bound up with and integral to the constitution and reconstitution of NGOs' operations, shedding light on the role and implications of technologies in everyday materiality (Fenwick, 2010, 2014; Moura & Bispo, 2019; Orlikowski, 2000, 2007; Orlikowski & Scott, 2008).

Given the constitutive entanglement of the social and the material in everyday life (Moura & Bispo, 2020; Orlikowski, 2007), it is therefore expected that the performativity of digital technologies adopted and used by NGOs could have different implications for different beneficiaries based on their contexts, affordances and interests. For instance, the same counselling and services offered by Nepalese NGOs have been perceived differently by beneficiaries at different times and the benefits engendered through engaging with the emerging digital community have proved to be more empowering than those offered by NGOs. In some instances, NGOs' services have been perceived as relatively unimportant - as something beneficiaries might engage in during their spare time - and of causing more harm than good by enabling flows of misinformation and digital abuse. The configuration of mobile phones and digital platforms incorporating multiple features has led to beneficiaries setting their own priorities and, in some instances the social events happening around them have outweighed the importance of counselling and services being offered by NGOs. The use and performance of such social material assemblages are therefore both emergent and contingent,

producing intended and untended consequences across time and space (Orlikowski, 2001). Our findings have demonstrated how these technologies have influenced the operations, relationships with beneficiaries and other stakeholders and identity of Nepalese NGOs. The underlying concept of sociomateriality has enabled us to argue that the performance of technology cannot be a priori, but rather is constantly evolving in everyday life through social practices.

Having said this, our study has contributed to the burgeoning literature on NGOs' accountability and digitalisation in a number of ways. Firstly, by illustrating how Nepalese NGOs have used digital technologies and online platforms during the pandemic, the study has extended our understanding of the digitisation of NGOs' day-to-day operations in developing country contexts and the manner in which digitalisation has enabled NGOs to reconstruct their identity (i.e., becoming more innovative and proactive) in terms of reaching out to beneficiaries, alter their modes of operation and service delivery, and reshape their relationships with other stakeholders.

Next, while prior studies discuss several benefits of digitalisation, mainly extending NGOs' outreach, cost reduction and promoting dialogue and engagement with stakeholders (Agostino et al., 2021; Bellucci & Manetti, 2017; Goncharenko, 2019; Hyndman & McConville, 2018; Kingston et al., 2023), our study provides examples of how beneficiaries have been empowered, particularly female and other marginalised groups, via the creation of opportunities to engage in social networking. Through digitalisation, Nepalese NGOs have been able to create a new online digital community of beneficiaries, providing them with a conduit through which to express their collective voices in favour of social justice. In addition, the economic empowerment of certain groups of beneficiaries is evident, as they have been able to translate their internally embedded accounting ideas into unanticipated spaces resulting from their newly acquired digital literacy, by setting up businesses and creating employment opportunities.

More importantly, by shedding light on several unintended consequences of digitalisation, both for the NGOs themselves and their beneficiaries, the study has furthered our understanding of the extent to which NGOs can digitalise their activities for poor and marginalised communities in developing countries with limited access to the Internet and high rates of digital illiteracy. For instance, certain groups of beneficiaries, especially those with limited digital access and

resources and those dealing with sensitive issues (for instance, gender-based violence) have been further marginalised, and their felt accountability compromised, as certain services which require close surveillance, monitoring and confidentiality (e.g., mental health counselling) have been withdrawn, and the constant and often excessive flow of information has led to digital fatigue. Altering their communication mechanisms and mode of operations has encouraged many NGOs to adopt a hybrid form, incorporating both physical and online service delivery as part of reconstructing their post-pandemic identity. By delineating the evolving post-pandemic direction of NGOs' operations in developing countries, the study has thereby added to the ongoing debate within the literature on both NGO accountability and digitalisation (Agyemang et al., 2017; Hall & O'Dwyer, 2017; O'Dwyer & Unerman, 2008; Uddin & Belal, 2019; Bellucci & Manetti, 2017; Goncharenko, 2019; Agostino et al., 2021; Chua et al., 2021).

Lastly, the paper illustrates how the preoccupation of the accounting literature with the social and accountability aspects of NGOs has caused the role played by the technology itself to be overlooked. As outlined by Landri (2015), the agency of NGOs, stakeholders and technology is empirically distributed within the process of digitalisation and this could have a significant impact on the way in which digital accountability, as discussed in the accounting literature, has been understood (Agostino et al., 2022; Ahn & Wickramasinghe, 2021; Goncharenko, 2019; Grossi & Argento, 2022; Polzer & Goncharenko, 2021). We therefore call for further research focusing on the materiality of the adoption and use of technology in discussions about NGOs' accountability more generally, and digital accountability in particular. This may enable accounting researchers to explain the intended and unintended consequences of the adoption and use of technology in organisational life across time and space. We emphasise that access to and the affordance of technologies is not sufficient to guarantee the fulfilment of their intended applications and results as the performance of technologies is sociomaterial; users can make choices about the use of digital technologies. In a similar vein, as Moura and Bispo (2020) have pointed out, the concept of sociomateriality is rooted in several theories, but only a few of these appear to have attracted the attention of accounting scholars, for instance, actor-network theory (see e.g., Robson & Bottausci, 2018). We therefore urge accounting scholars to expand their theoretical scope when examining the materiality of NGOs' digitalisation in different contexts, for instance, by applying the concept of 'new materialities' (see e.g., Moura & Bispo, 2020).

References

Agostino, D., Saliterer, I., & Steccolini, I. (2022). Digitalization, accounting and accountability: A literature review and reflections on future research in public services. *Financial Accountability & Management*, *38*(2), 152-157.

Agyemang, G., O'Dwyer, B., & Unerman, J. (2019). NGO accountability: Retrospective and prospective academic contributions. *Accounting, Auditing & Accountability Journal*, *32*(8), 2353-2366.

Agyemang, G., O'Dwyer, B., Unerman, J., & Awumbila, M. (2017). Seeking "conversations for accountability": Mediating the impact of non-governmental organization (NGO) upward accountability processes. *Accounting, Auditing & Accountability Journal*. *30*(5), 982-1007.

Ahn, P. & Wickramasinghe, D. (2021). Pushing the limits of accountability: big-data analytics containing and controlling COVID-19 in South Korea. *Accounting, Auditing and Accountability Journal*, *34*(6),1320-1331.

Apuke, O. D., & Omar, B. (2021). Social media affordances and information abundance: Enabling fake news sharing during the COVID-19 health crisis. *Health Informatics Journal*, *27*(3), 14604582211021470.

Aryal, A. (2020). Thousands of Nepalis without food or shelter await entrance at the Karnali border. The Kathmandu Post, May 26, Retrieved from https://kathmandupost.com/national/2020/05/26/thousands-of-nepalis-without-food-or-shelter-await-entrance-at-the-karnali-border.

Awio, G., Northcott, D., & Lawrence, S. (2011). Social capital and accountability in grass-roots NGOs: The case of the Ugandan community-led HIV/AIDS initiative. *Accounting, Auditing & Accountability Journal*, *24*(1), 63-92.

Belal, A., Thomson, I., & Cordery, C. (2023). Editorial: Critical perspectives on NGO governance and accountability. *Critial Perspectives on Accounting*, In press, https://doi.org/10.1016/j.cpa.2023.102583.

Bellucci, M., & Manetti, G. (2017). Facebook as a tool for supporting dialogic accounting? Evidence from large philanthropic foundations in the United States. *Accounting, Auditing & Accountability Journal. 30*(4), 874-905.

Bispo, M. D. S. (2015). Methodological reflections on practice-based research in organization studies. *BAR-Brazilian Administration Review*, *12*(3), 309-323.

Bispo D.S.M., Soares, L. C., & Cavalcante, E. D. C. (2018). Cooking as practice: An aesthetic approach for tourism and hospitality. In L. James, C. Ren, & H. Halkier (Eds.), *Theories of practice in tourism* (pp. 77-93). Oxon: Routledge.

Brem, A., Viardot, E., & Nylund, P. A. (2021). Implications of the coronavirus (COVID-19) outbreak for innovation: Which technologies will improve our lives? *Technological Forecasting and Social Change, 163*, 120451.

Chu, V., & Luke, B. (2021). "Felt responsibility": a mediator for balancing NGOs' upward and downward accountability. *Journal of Accounting & Organizational Change*, *18*(2), 260-285.

Chua, W. F., Graaf, J., & Kraus, K. (2021). Mapping and contesting peer selection in digitalized public sector benchmarking, *Financial Accountability & Management*, *38*(2), 223-251.

Cordery, C., Belal, A. R., & Thomson, I. (2019). NGO accounting and accountability: Past, present and future. *Accounting Forum*, *43*(1), 1-15.

Coole, D., & Frost, S. (2010). Introducing the new materialisms. In D. Coole, & S. Frost (Eds.), *New materialisms: Ontology, agency, and politics* (pp. 1-43). Durham, NC: Duke University press.

Daff, L., & Parker, L. D. (2021). A conceptual model of accountants' communication inside not-for-profit organisations. *The British Accounting Review*, *53*(3), 100959.

de Aquino, A., Lino, A., de Azevedo, R. & da Silva, P. (2022). Digital affordances and remote public audit practice. *Financial Accountability & Management*, *38(3)*, 447-467.

Dewi, M. K., Manochin, M., & Belal, A. (2019). Marching with the volunteers: Their role and impact on beneficiary accountability in an Indonesian NGO. *Accounting, Auditing & Accountability Journal*, *32*(4), 1117-1145.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, *14*(4), 532–550.

Fenwick, T. (2010). Re- thinking the "thing": Sociomaterial approaches to understanding and researching learning in work. *Journal of Workplace Learning*, *22*(1/2), 104-116.

Fenwick, T. (2014). Sociomateriality in medical practice and learning: attuning to what matters. *Medical Education*, *48*(1), 44-52.

Fenwick, T., Edwards, R., & Sawchuk, P. (2011). *Emerging approaches to educational research: Tracing the socio-material*. Oxon: Routledge.

Firoozi, M. & Ku, C. (2022). Corporate accountability during crisis in the digitized era. *Accounting, Auditing & Accountability Journal*, ahead-of-print, doi.org/10.1108/AAAJ-04-2020-4509.

Fuller, M. (2005). *Media ecologies: Materialist energies in art and technoculture*. Cambridge: MIT Press.

Grossi, G., & Argento, D. (2022). The fate of accounting for public governance development, *Accounting, Auditing & Accountability Journal*, *35*(9), 272-303.

Glaser, V. L. (2017). Design performances: how organizations inscribe artifacts to change routines. *Academy of Management Journal*, *60*(6), 2126-2154.

Goddard, A. (2021). Accountability and accounting in the NGO field comprising the UK and Africa – A Bordieusian analysis. *Critical Perspectives on Accounting*, *78*, 102200.

Goncharenko, G. (2019). The accountability of advocacy NGOs: insights from the online community of practice. *Accounting Forum*, *43*(1), 135-160.

Guo, L., Ren, L., Yang, S., Xiao, M., Chang, D., Yang, F., & Wang, J. (2020). Profiling early humoral response to diagnose novel coronavirus disease (COVID-19). *Clinical Infectious Diseases*, *71*(15), 778-785.

Hall, M., & O'Dwyer, B. (2017). Accounting, non-governmental organizations and civil society: The importance of non-profit organizations to understanding accounting, organizations and society. *Accounting, Organizations and Society*, *63*, 1-5.

Hopper, T., Tsamenyi, M., Uddin, S., & Wickramasinghe, D. (2009). Management accounting in less developed countries: what is known and needs knowing. *Accounting, Auditing & Accountability Journal*, *22*(3), 469-514.

Hyndman, N., & McConville, D. (2018). Making charity effectiveness transparent: Building a stakeholder- focussed framework of reporting. *Financial Accountability & Management*, *34*(2), 133-147.

Islam, A. N., Laato, S., Talukder, S., & Sutinen, E. (2020). Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective. *Technological Forecasting and Social Change*, *159*, 120201.

Kingston, K., Luke, B., Furneaus, C., & Alderman, L. (2023). Examining the re-territorialisation of beneficiary accountability: digitising nonprofit services in response to COVID-19. *The British Accounting Review*, In press, 101199, https://doi.org/10.1016/j.bar.2023.101199.

Kuruppu, S., & Lodhia, S. (2020). Shaping accountability at an NGO: a Bourdieusian perspective. *Accounting, Auditing & Accountability Journal*, *33*(1), 178-203.

Kuruppu. S., & Lodhia, S. (2019). Disruption and transformation: the organisational evolution of an NGO. *The British Accounting Review*, *51*(6), 1-15.

Landri, P. (2015). The sociomateriality of education policy. *Studies in the Cultural Politics of Education*, *36*(4), 596-609.

Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford: Oxford University Press.

Law, J. (2004). *After method: Mess in social science research*. Oxon: Routledge.

Law, J., & Mol, A. (1995). Notes on materiality and sociality. *The Sociological Review*, *43*(2), 274-294.

Le, J. K., & Spee, A. P. (2014). The material turn in organization studies and strategy-as-practice. *Academy of Management Proceedings*, *1*, 11122-11122.

Leonardi, P. M. (2011). When flexible routines meet flexible technologies: Affordance, constraint, and the imbrication of human and material agencies. *MIS Quarterly*, *35*(1*)*, 147–167.

Leonardi, P. (2012). Materiality, sociomateriality, and socio-technical systems: What do these terms mean? How are they related? Do we need them? In P.M.Leonardi, B.A. Nardi, & J. Kallinikos (Eds.), *Materiality and organizing: Social interaction in a technological world* (pp. 25-48). Oxford: Oxford University Press.

Lino, A., de Aquino, A. & Neves, F. (2021). Accountants' postures under compulsory digital transformation imposed by government oversight authorities. *Financial Accountability & Management*, *38(2)*, 202-222.

Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: results from expert interviews. *Government Information Quarterly*, *36*(4), 101385.

Miles, M. B., Huberman, A. M., & Saldana, J. (2020). *Qualitative data analysis: a methods sourcebook (4th ed.).* Thousand Oaks: Sage.

Miller, P. (2001). Governing by numbers: Why calculative practices matter. *Social Research*, *68*(2), 379-396.

Miller, P., & Rose, N. (1990). Governing economic life. *Economy and Society*, *19*(1), 1-31.

Mora, L., Kummitha, R. K. R., & Esposito, G. (2021). Not everything is as it seems: Digital technology affordance, pandemic control, and the mediating role of sociomaterial arrangements. *Government Information Quarterly*, *38*(4), 101599.

Mortensen, M., Neumayer, C., & Poell, T. (2018). S*ocial media materialities and protest.* Oxon: Routledge.

Moura, E. O. D., & Bispo, M. D. S. (2020). Sociomateriality: Theories, methodology, and practice. *Canadian Journal of Administrative Sciences*, *37*(3), 350-365.

NGO Federation. (2021). *COVID-19 and Nepalese civil society organizations: Impact, responses, and opportunities*. Kathmandu, Nepal: USAID, NGO Federation & FHI 360.

O'Dwyer, B., & Unerman, J. (2008). The paradox of greater NGO accountability: A case study of Amnesty Ireland. *Accounting, Organizations and Society*, *33*(7-8), 801-824.

O'Leary, S. (2017). Grassroots accountability promises in rights-based approaches to development: The role of transformative monitoring and evaluation in NGOs. *Accounting, Organizations and Society*, *63*, 21-41.

Orlikowski, W. J. (1992). The duality of technology: Rethinking the concept of technology in organizations. *Organization Science*, *3*(3), 398-427.

Orlikowski, W. J. (2000). Using technology and constituting structures: A practice lens for studying technology in organizations. *Organization Science*, *11*(4), 404-428.

Orlikowski, W. J. (2002). Knowing in practice: Enacting a collective capability in distributed organizing. *Organization Science*, *13*(3), 249-273.

Orlikowski, W. J. (2007). Sociomaterial practices: Exploring technology at work. *Organization Studies*, *28*(9), 1435-1448.

Orlikowski, W. J. (2010). The sociomateriality of organisational life: considering technology in management research. *Cambridge Journal of Economics*, *34*(1), 125-141.

Orlikowski, W. J., & Scott, S. V. (2008). 10 sociomateriality: challenging the separation of technology, work and organization. *Academy of Management Annals*, *2*(1), 433-474.

Orlikowski, W. J., & Yates, J. (2006). ICT and organizational change: a commentary. The *Journal of Applied Behavioral Science*, *42*(1), 127-134.

Parmiggiani, E., & Mikalsen, M. (2013). The facets of sociomateriality: A systematic mapping of emerging concepts and definitions. In M. Anaestad, & T. Bratteteig (Eds.), *Nordic contributions in IS research, SCIS 2013, Lecture notes in business information processing*, 156 (pp. 87-103). Berlin, Heidelberg: Springer, Berlin.

Patton, M.Q. (2002). *Qualitative evaluation and research methods*. Thousand Oaks, CA: Sage Publications.

Polzer, T., & Goncharenko, G. (2021). The UK COVID- 19 app: The failed co- production of a digital public service. *Financial Accountability & Management, 38*(2), 281-298.

Poole, M. S., & DeSanctis, G. (1990). Understanding the use of group decision support systems: The theory of adaptive structuration. In J. Fulk, & C. Steinfield (Eds.), *Organizations and Communication Technology* (pp. 173–193). Thousand Oaks, CA: Sage Publications.

Rana, T., & Cordery, C. (2023). Digitalization as a form of marketization: the performativity of calculative practices in framing and overflowing NGO performance and accountability. *The British Accounting Review*, In press, 101176, https://doi.org/10.1016/j.bar.2023.101176.

Robson, K., & Bottausci, C. (2018). The sociology of translation and accounting inscriptions: Reflections on Latour and accounting research. *Critical Perspectives on Accounting*, 54, 60-75.

Scott, S., & Orlikowski, W. (2014). Entanglements in practice: Performing anonymity through social media. *MIS Quarterly*, *38*(3), 873-893.

Sekaran, U., & Bougie, R. (2016). *Research method for business: A skill building approach* (7th edition). West Sussex, UK: John Wiley & Sons Ltd.

She, C., & Michelon, G., (2019). Managing stakeholder perceptions: Organized hypocrisy in CSR disclosures on Facebook. *Critical Perspectives on Accounting, 61,* 54-76

Silverman, D. (2005), *Doing qualitative research (* 2nd edition). London: Sage Publications.

Social Welfare Council (SWC). (2021). *Highlights: COVID response by NGOs.* Retrieved from https://www.swc.org.np.

Star, S. L. (2010). This is not a boundary object: Reflections on the origin of a concept. *Science, Technology, & Human Values*, *35*(5), 601-617.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd edition). Thousand Oaks: Sage.

Suchman, L., & Suchman, L. A. (2007). *Human-machine reconfigurations: plans and situated actions*. Cambridge: Cambridge University Press.

Taipale, J. (2019). Predefined criteria and interpretative flexibility in legal courts' evaluation of expertise. *Public Understanding of Science*, *28*(8), 883-896.

Taylor, D., Tharapos, M., & Sidaway, S. (2014). Downward accountability for a natural disaster recovery effort: Evidence and issues from Australia's Black Saturday. *Critical Perspectives on Accounting*, *25*(7), 633-651.

Uddin, M. M., & Belal, A. R. (2019). Donors' influence strategies and beneficiary accountability: an NGO case study. *Accounting Forum*, *43*(1), 113-134.

UNESCO. (2019). *New report on global broadband access underscores urgent need to reach the half of the world still unconnected*. Retrieved from https://en.unesco.org/news/new-report-global-broadband-access-underscores-urgent-need-reach-half-world-still-unconnected.

Unerman, J., & O'Dwyer, B. (2006). On James Bond and the importance of NGO accountability. *Accounting, Auditing & Accountability Journal*, *19*(3), 305-318.

Vakil, A. C. (1997). Confronting the classification problem: Toward a taxonomy of NGOs. *World Development*, *25*(12), 2057-2070.

Watermeyer, R., Crick, T., Knight, C., & Goodall, J. (2021). COVID-19 and digital disruption in UK universities: Afflictions and affordances of emergency online migration. *Higher Education, 81*, 623-641.

Yeshua-Katz, D., Shapira, S., Aharonson-Daniel, L., Clarfield, A. M., & Sarid, O. (2023). Matching digital intervention affordances with tasks: The case of a Zoom and WhatsApp mental health intervention for seniors during the COVID-19 pandemic. *Health Communication*, *38*(3), 499-511.

Yin, R.K. (2009). *Case study research: design and methods* (4th edition). Thousand Oaks, CA: Sage.

Zammuto, R. F., Griffith, T. L., Majchrzak, A., Dougherty, D. J., & Faraj, S. (2007). Information technology and the changing fabric of organization. *Organization Science, 18*(5), 749-762.

Webpages:

https://www.swc.org.np/

https://www.swc.org.np/sites/default/files/suchana/FlashReport_infograph_July%2030.pdf

Appendix A: Distribution of our Interviewees

Interviewees	Number of interviews
Government officials	2
NGO owners	3
NGO volunteers	2
NGO executive directors	2
NGO programme managers	2
NGO programme officers	5
NGO clinical workers	2
NGO field-level staff members	2
Total	20

Appendix B: Details of Focus Group Discussion (FGD) Participants

Interviewees (All female)	Age	Location in Nepal	Number of participants
Owner of a grocery store	31	Rupandehi	1
Owner of a cosmetic shop	27	Palpa	1
Owner of a beauty parlour	28	Kaski	1
Owner of a grocery store	45	Morang	1
Owner of chocolate products	56	Kathmandu	1
Owner of a fashion boutique	30	Kathmandu	1
Owner of a fashion boutique	29	Palpa	1
Owner of a cosmetic shop	45	Parbat	1
Owner of a grocery store	48	Gulmi	1
Owner of a grocery store	32	Parbat	1
Total			10

Title Page with Author information

The Sociomateriality of Digitalisation in Nepalese NGOs

Pawan Adhikari, Bedanand Upadhaya & Chaminda Wijethilake
University of Essex
&
Shovita Dhakal Adhikari,
London Metropolitan University

Corresponding author: Pawan Adhikari (padhik@essex.ac.uk)

Response to SI Guest Editors' Comments

Thank you very much for suggesting us some final changes in the paper. As suggested, we have revised (shortened) the title of the paper, arranged the key words in an alphabetical order and addressed Comment 3 referring to the work by Mergel et al. (2019). Please find below our responses to all three comments you have provided to us.

Comment 1: Please shorten the title to something like: The sociomateriality of digitalisation in Nepalese NGOs, and

Our response: Thank you. We have now shortened title. As suggested, our new title is:
The Sociomateriality of Digitalisation in Nepalese NGOs

***Comment: 2**. Arrange the key words alphabetically*

Our response: Thank you. The key words are now arranged alphabetically (i.e., Developing countries, Digitalisation, Nepal, Non-Governmental Organisations (NGOs), Sociomateriality)

Comment: 3. We are asking authors to ensure consistent use of the terms' digitisation, digitalisation and digital transformation. In our Guest Editorial are using Mergel et al. (2019) for this. Specifically, Mergel et al. (2019, p. 12) define digitisation as 'the transition from analogue to digital services with a 1:1 change in the delivery mode and the addition of a technological channel of delivery', digitalisation as focused 'on potential changes in the processes beyond mere digitizing of existing processes and forms', with digital transformation representing a deeper set of changes. While this is a public sector paper (ref below) we believe it can be applied to the NGO sector, with digital transformation being a holistic effort to revise an NGO's core processes and services beyond digitisation and digitalisation efforts, taking in a 'full stack review of organisational policies, current processes and user needs and results in a complete revision of the existing and the creation of new digital services. The outcome of digital transformation efforts focuses among others on the satisfaction of user needs, new forms of service delivery, and the expansion of the user base. (Mergel et al., 2019, p. 12)

Our response: Thank you very much for highlighting this point and suggesting us this very useful paper to ensure consistency in the use of the terms' 'digitisation', 'digitalisation', and 'digital transformation'. Having read this paper, as well the recent paper by Kingston et al. (2023), we have now selected the appropriate term throughout the paper to ensure consistency in our discussion. For instance, we have deleted the use of the term 'digital transformation' and most of our discussions now concern the digitisation of services and digitalisation. In our first paragraph (introduction) we have directed the readers to Mergel's work for a detailed discussion on these terms. In addition, we have included few recent papers on NGOs (e.g., Belal et al., 2023; Kingston et al., 2023 and Rana & Cordery, 2023) to strengthen our case further. All the changes made are highlighted red.

Again, we very much appreciate all your valuable comments and support we received in the process of developing this paper and bringing the paper to this level. Thank you very much to you all.

Cover Letter

Dear SI Editors,

Thank you very much for suggesting us some final changes in the paper. As suggested, we have revised (shortened) the title of the paper, arranged the key words in an alphabetical order and addressed Comment 3 referring to the work by Mergel et al. (2019). Please find below our responses to all three comments you have provided to us.

Comment 1: Please shorten the title to something like: The sociomateriality of digitalisation in Nepalese NGOs, and
Our response: Thank you. We have now shortened title. As suggested, our new title is:
The Sociomateriality of Digitalisation in Nepalese NGOs

***Comment: 2**. Arrange the key words alphabetically*
Our response: Thank you. The key words are now arranged alphabetically (i.e., Developing countries, Digitalisation, Nepal, Non-Governmental Organisations (NGOs), Sociomateriality)

Comment: 3. We are asking authors to ensure consistent use of the terms' digitisation, digitalisation and digital transformation. In our Guest Editorial are using Mergel et al. (2019) for this. Specifically, Mergel et al. (2019, p. 12) define digitisation as 'the transition from analogue to digital services with a 1:1 change in the delivery mode and the addition of a technological channel of delivery', digitalisation as focused 'on potential changes in the processes beyond mere digitizing of existing processes and forms', with digital transformation representing a deeper set of changes. While this is a public sector paper (ref below) we believe it can be applied to the NGO sector, with digital transformation being a holistic effort to revise an NGO's core processes and services beyond digitisation and digitalisation efforts, taking in a 'full stack review of organisational policies, current processes and user needs and results in a complete revision of the existing and the creation of new digital services. The outcome of digital transformation efforts focuses among others on the satisfaction of user needs, new forms of service delivery, and the expansion of the user base. (Mergel et al., 2019, p. 12)
Our response: Thank you very much for highlighting this point and suggesting us this very useful paper to ensure consistency in the use of the terms' 'digitisation', 'digitalisation', and 'digital transformation'. Having read this paper, as well the recent paper by Kingston et al. (2023), we have now selected the appropriate term throughout the paper to ensure consistency in our discussion. For instance, we have deleted the use of the term 'digital transformation' and most of our discussions now concern the digitisation of services and digitalisation. In our first paragraph (introduction) we have directed the readers to Mergel's work for a detailed discussion on these terms. In addition, we have included few recent papers on NGOs (e.g., Belal et al., 2023; Kingston et al., 2023 and Rana & Cordery, 2023) to strengthen our case further. All the changes made are highlighted red.

Again, we very much appreciate all your valuable comments and support we received in the process of developing this paper and bringing the paper to this level. Thank you very much to you all.

Sincerely yours
Pawan Adhikari (on behalf of all co-authors)