Critical realist theory of emotions and older people's challenges in technology adoption: a case study of Lindsay Leg Club volunteers

Abstract

Purpose: This study examines challenges in digital technology adoption among older volunteers in an organisation addressing social isolation. Using Margaret Archer's critical realist theory of emotions as causal commentaries on wider concerns, it investigates why older individuals might reject or need to adapt to digital technology adoption.

Design/methodology/approach: The paper examines a qualitative case study of Lindsay Leg Club volunteers through two sequential projects: assessing attitudes towards digital communication technology and understanding motivations for in-person social interactions. In total, 27 interviews were conducted with volunteers in three Leg Clubs to analyse these aspects of the volunteer experience.

Findings: Volunteers' emotional reactions to technology revealed two wider concerns: *leaving the role* of the Leg Club volunteer, fundamentally grounded in face-to-face social relationships, and *reflexivity about technology adaptation*, underpinned by evaluative decisions about the extent of willingness to engage with change.

Research limitations/implications: The sequential design meant that there was not a complete overlap between participants in both studies. Exact age and sex demographics were not recorded.

Practical implications: The study suggests that technology can be relationally oppressive so its introduction in organisations focused on in-person support for older people must consider the risks of technological appropriation of social relationships.

Originality: Rather than presenting technology introduction as a technical process and emotions as its subjective by-product, the paper uses critical realism to show emotions can represent commentaries on technology's risks to transforming the context of human relationality.

Key words: Archer, critical realism, emotions, Lindsay Leg Clubs, older people, relationality, social isolation, technology adoption, volunteers

Introduction

Recent healthcare literature recognises the value of studying the emotional experiences of organisational stakeholders to gain a deeper understanding of change processes (e.g. Taylor *et al*., 2020), such as digital technology implementation in healthcare and social care settings (Glaser *et al*., 2020; Peek *et al*., 2020). Digital technology presents potential complexities for some people, such as older adults seen as the most 'offline' group, given age-related perceptions of barriers to technology use (Vaportzis *et al.*, 2017) and their lack of familiarity with technology. Therefore, emotions offer a lens through which to explore how older individuals respond to and make sense of such technological transformations.

However, much of the literature sees emotions as irrational and personal (e.g. Pham, 2007) and, therefore, as subjective by-products of technology adoption (Proffitt *et al*., 2015). Instead, this paper demonstrates a critical realist reading of emotions as explanations for the acceptance, rejection, or adaptation of technology adoption. Critical realism is an ontological position that sees emotions as real generative mechanisms with causal powers that influence action and inaction and have effects in specific contexts (Archer, 2004). Emotions, therefore, must be brought into the scheme of how we think about technology in organisations, not as a purely functional phenomenon, but as a relational process, with anticipated effects of technology on our social relations as moderators of how we interact with it (Mutch, 2015). Therefore, technology must be brought into the context of social relations, and people's pertinent emotions in response to technology can act as important commentaries on concerns regarding these social relations.

This study takes a lead from Archer (2004), who argues that emotions represent commentaries on what people care about and are deeply integrated with reflexivity – the internal conversation through which individuals deliberate about their concerns, projects, and

social roles and decide how to act vis-à-vis the enablements and constraints of social structures (Barratt *et al*., 2020). From this methodological standpoint, emotions are not just struggles or successes we observe when people interact with technology, but they are explanatory reasons behind the observable. Archer's view of emotions as integral to reflexivity can help explain how people make meaning in relation to the challenges experienced when faced with technology and how they react to these challenges, that is, whether adoption occurs or not, or why it may require significant adaptation as people shape and are shaped by their experience and specific current context.

The context for the present analysis of the role of emotions in digital technology adoption is older adults volunteering for Lindsay Leg Clubs (henceforth LLCs). LLCs are community-based organisations which are run from non-medical settings by older community volunteers and 'staffed' with medical professionals, offering drop-in holistic care for individuals with leg-related conditions. They provide treatment, education, and social support. There are over 40 LLCs in the UK. Operating on a psycho-social model, they empower their patients, referred to as 'members,' to participate actively in their medical care and to build their social capital through social interaction, aiming to improve wellbeing and reduce isolation. Value to member experience is added through volunteers offering social support through informal social activities along with medical treatment. Volunteers play a pivotal role in managing the logistics of getting to and from clubs, fundraising to pay for venue rents and refreshments, and maintaining the social fabric of LLCs. Crucially, many volunteers are retirees, who represent an older demographic (mostly above the age of 65) that tends to be categorised as the most 'offline' age group (Prescott, 2021).

This study explored the attitudes of LLCs volunteers toward the potential introduction of a mobile application for communication. Rather than describing volunteers' emotional

reactions to technology as irrational subjective responses (Proffitt *et al*., 2015) or expected social norms around older adults' scripts about technologies (Richardson, 2008; Reyes *et al*., 2023), this paper argues that they are real, causal, and reflexively mediating concerns about volunteer role exit and the need for reflexive evaluations of the digital technology adoption process. In unpacking this explanation, the paper is guided by the following questions: What are the emotional reactions of older volunteers in an organisation focused on alleviating social isolation to the use of technology for communication and coordination? How is technology used? What do these emotions reveal about their wider concerns regarding technology and beyond?

Literature review

Volunteering and emotions

Volunteering refers to planned helping behaviour that involves giving time freely for the benefit of others (Clary *et al*., 1998; Wilson, 2000). It has long played a vital role in health and social care as a key component in supplementing overstretched healthcare systems (Gonella *et al*., 2019). Volunteers in care settings often provide companionship, engage patients in art and music, or simply are present during medical care (McDonnell *et al*., 2014). Although volunteers receive no financial compensation for their work, they benefit from it themselves through prosocial fulfilment, personal development, recognition, and the emotional meaning they draw from helping others (Clary *et al.,* 1998; Reed & Selbee, 2003). Therefore, volunteering functions at the intersection of institutional sustainability, community engagement, and personal fulfilment (Gonella *et al*., 2019).

However, the discourse surrounding volunteering frequently adopts instrumental framing, positioning it as a form of leisure or as a substitute for formal labour (Overgaard, 2019).

Much of the existing literature tends to be functionalist, focusing on quantifiable outcomes (Cameron *et al*., 2020). In contrast, recent scholarship calls for a more critical and reflexive approach to volunteerism, recognising its experiential complexity, particularly in the face of societal challenges (Greening, 2021), such as the ageing population and the increasing costs and complexity of care for the elderly (Feather, 2023).

Older adults frequently engage in volunteering, not only to support others, but also to maintain a sense of purpose, overcome personal challenges, or stay socially connected (Reed & Selbee, 2003; McDonnell *et al*., 2014). As highlighted by Canoy *et al*. (2023), volunteering later in life can have positive effects on older adults by providing them with a sense of making meaningful social contributions, reducing loneliness, or improving well-being. Similarly, a recent study by Lee (2022) linked volunteering to reduced levels of loneliness and greater self-efficacy at social interactions and the forming of social bonds. However, this kind of relationality may require volunteers to undertake significant emotional navigation and draw on high-level emotion skills. Emotional navigation refers to "the ways individuals actively manage their experience and expression of emotions and the ways they might work to maintain or change a given course of action" (Vaportzis *et al.*, 2017). Emotional skills that are important to volunteering require self-reflection, moral support, and emotional detachment to navigate the complex dynamics of caregiving (Clary *et al*., 1998). Volunteers themselves may experience a spectrum of emotions, from joy and fulfilment to anxiety, anger, or guilt, particularly when faced with emotional labour (Hochschild, 1983).

Emotional labour, as conceptualised by Hochschild (1983) has been an influential approach to studying people's emotions in organisations. According to this approach, emotions are managed and performed according to organisational "feeling rules". When applied to the volunteer context, volunteers may be expected to display socially appropriate emotions

regardless of their internal states, leading to a disconnect between genuine feelings and outward expressions. Hochschild's concept of emotional labour, while typically applied to paid employment, when extended to volunteering can reveal pressures can lead to burnout, emotional exhaustion, and decreased wellbeing. This emotional dissonance, especially under conditions of technological change, may push older volunteers to adapt even when the experience evokes confusion or anxiety.

Theoretical perspective: emotions, reflexivity and volunteering in digital transformations

While this account is useful in highlighting emotional strains, Hochschild's (1983) framework tends to treat the self as reactive, primarily shaped by external norms and organisational expectations. It risks underplaying the reflexive, agentic dimensions of emotional experience, particularly where individuals actively interpret and navigate organisational roles in line with their personal values. In contrast, a critical realist reading of emotions sees them as real "commentaries" on our concerns or deeply held values and projects that sustain a coherent self-narrative. These commentaries emerge from our engagement with three distinct domains or orders of reality: natural (body-environment relations), practical (subject-object relations), and social or discursive (subject-subject relations). Therefore, emotions are not just reactions or deep or surface performances; they represent people's relational responses to specific situations in different domains of reality. This view of emotions avoids a reductionist interpretation, emphasising how emotions that people experience are shaped by the structural and cultural context, as well as people's agency.

Moreover, Archer's model positions emotions as central to reflexivity – the "inner conversation" through which individuals monitor, prioritise, and respond to their concerns across the three orders (2004). This internal conversation captures the reflexive deliberations

that individuals engage in to make sense of their lives, actively negotiate conflicting emotional demands, and develop a way of living that balances competing concerns. The framework highlights that concerns from different orders often conflict and that individuals must constantly negotiate these tensions.

For example, age is often listed as an important factor associated with limited access to and skill in using modern technology (Kruse *et al.*, 2012; Vogels, 2019). This lack of access and skills can generate negative emotions around a sense of exclusion, stigmatisation, and a sense of being overwhelmed by the digital divide (Blažič & Blažič, 2020; Reyes *et al.*, 2023). From Archer's perspective, these struggles relate to the objective constraints of the physical environment and biological body with diminishing sensory and cognitive abilities (2020). These changes create barriers to technology adoption, generating feelings of frustration, exclusion, and overwhelming in the natural order of reality, which then affects older people's engagement with technology in the practical order. For example, research has shown that technology can be experienced positively with excitement and hope when it can support people in their social activities and boost their technical ability to connect with others (Portenhauser *et al.*, 2021). However, research also shows that technologically-mediated communication can strip human contact from social cues (Derks *et al.*, 2008), altering social relationships. Lack of skills and access to technology in the practical order can further constrain people's ability to participate in social activities to connect with others, leading to feelings of guilt and shame in the social order in reference to dignity and self-worth. The social evaluation that follows may be one of being "too old to learn", which can widen the digital divide (Richardson, 2018; Reyes *et al*., 2023).

Such an analysis underscores the need to understand technology adoption by older adults not only as a technical issue but as a deeply emotional process shaped by their agency and

relational experiences. Archer's conceptualisation of emotions can help build people's concerns firmly into an explanation of why technology sometimes works as intended in organisations, and why, at other times, its potentials are not realised as people preserve their agentic powers to defend their social projects. Therefore, technological communicative solutions must be studied in the context of relationality that matters in volunteering.

Methods

Selecting case study settings

This study employed a case study of volunteering within LLCs, a design well suited to exploring a complex, real-life phenomenon in its natural setting (Crowe *et al*., 2011). The case study approach is particularly appropriate for research aimed at understanding professional attitudes toward new initiatives in health and care environments, where context and human experience are central. In this study, the initiative under examination was the potential introduction of a customised mobile application to support communication among volunteers operating across multiple LLCs. The focus was on exploring the emotional dimensions of how such technology might be received, adding to a body of research that is growing yet remains limited (Boucher et al., 2022).

The study used a QUAL-qual sequential design (Morse, 2010), with data drawn from two consecutive exploratory inductive studies with volunteers at three UK-based LLCs. Interviews were used to learn about the experience of volunteering from those who lived through that experience. While multiple LLC sites were involved, the unit of analysis was not an individual club, but a collective group of volunteers. This case definition enabled a focused investigation of a specific population (older adults engaged in community health volunteering) facing a potential shift toward digital interactions. As such, this case offers an

exemplary context for understanding how older individuals respond emotionally to the prospect of new technology, with insights that may be transferable to other healthcare settings involving similar demographics.

Site selection was purposive and guided by both strategic and practical considerations. The three participating LLCs were chosen in collaboration with the organisations' gatekeeper, based on their receptiveness to research, as well as their geographical accessibility to the researcher. The involvement of key stakeholders and the assurance of cooperative and open relationships are common and legitimate features of case study research, enhancing feasibility without compromising scientific rigour (Robertson *et al*., 2010).

Reflexivity and researcher's positionality

Admittedly, there are several UK organisations, such as LLCs, which share the values of community-based healthcare and social inclusion and could have been selected as the case. For example, Time to Connect links care service users, particularly older adults with learning disabilities, to their communities to reduce social isolation and help them become more active citizens (Salman, 2019). Like the LLC model, the ANCLE Café offers a holistic, student-led program that combines clinical treatment and social support to improve healing and mental well-being in patients with chronic venous leg ulcers (Cardiff Metropolitan University, 2024). However, LLCs were chosen due to the researcher's familiarity with the organisation developed through multiple encounters with the LLCs during earlier research collaborations, which gave the researcher an 'insider-outsider' status, offering unique insights and access. The rapport developed with the stakeholders at the LLC sites facilitated the formation of trust between the researcher and the participants, allowing for more meaningful engagement with the data. At the same time, the researcher's longstanding association with LLCs required heightened awareness of potential biases in interpretation.

Sampling and data collection

The core project that fed into the present research was a proof-of-concept study conducted to test the feasibility of introducing a customised mobile communication application to improve the communication and coordination of activities among volunteers across UK LLCs. The idea was to explore whether there was a need for such a solution and, if so, whether it would be used by volunteers and how. This project was funded by the Economic and Social Research Council Impact Acceleration Award. The study ran over a course of three months between November and December 2022 and involved qualitative conversations with 11 volunteers. Volunteer sampling was purposive. The researcher made weekly visits to the LLCs, approaching the volunteers about the study. Each conversation lasted between 20 and 30 minutes and explored volunteers' reactions to the idea of building a digital product to understand what contents they would like to see and what use they would make of it; what sort of support they would need to use it; and how they could be engaged. The answers were not audio-recorded, but detailed notes were taken from the answers.

The other project, that chronologically preceded the core project, was a supplemental exploration of the motivations of LLC volunteers. The supplemental study ran between May and August 2022 and involved qualitative interviews with 16 volunteers from three Leg Clubs to understand the nature of the organisation and volunteering. Volunteer sampling was also purposive. As above, the researcher paid weekly visits to the LLCs, approaching the volunteers present about the study. The interviews explored volunteers' backgrounds, motivations, roles, responsibilities, experiences, challenges, and priorities within Leg Clubs, and lasted between 20 and 30 minutes. All but one conversation was audio-recorded, with the volunteers' consent.

Neither age nor sex information was recorded in either study. Although older age was an important contextual factor, the specific age of the volunteers was not relevant. Audits into the demographics of LLCs point to members' age range of 65-95+ (McIntyre et al., 2021) and this age range was generally reflective of the volunteers who took part in the studies.

The sequential research design meant that the overlap between participants used in the two studies was incomplete, as an additional five volunteers took part in the supplemental study. However, as observed by Morse, "little is lost if you are forced (perhaps by sequential research design) to use different people for each component and to aggregate each data set" (2010, p.488). Here, both datasets were paired by LLC volunteers as a group, which was considered the case. Moreover, the integration of two separate yet related projects into a single paper is a well-established academic practice that allows for a more comprehensive understanding of the same phenomenon (e.g. Pope & Turnbull, 2017). Here, the integration of this supplemental study into the present paper was crucial to provide a more comprehensive understanding of the relational context of LLCs that would have been inaccessible if the focus was solely on attitudes toward technology adoption (cf. Morse, 2010).

Ethical considerations and rigour

Both studies received ethical approval from [XXX] Ethics Committee. Clear language was used to record written consent from older adults. Interviews were scheduled in the LLCs to minimise disruption to volunteers' lives and ensure comfort around interviewing in familiar locations. In revealing the name of the LLCs, anonymity of individual LLCs and their volunteers was preserved; this is common practice in publications on LLCs, including publications from this paper's datasets (removed for the purpose of the review). Volunteers were thanked for their participation with customised unpublished reports offering insights into the studies' findings. Moreover, participants in the core project received high-street gift

vouches (with permission from the project founder) to thank them for their participation; these were given after the interviews to avoid influencing the decision to participate.

Data analysis

The QUAL-qual sequential design necessitated a rigorous and contextually appropriate approach to data analysis to address the research questions. Given the focus on volunteers' emotional experiences with technology implementation, the integration of the two projects was structured so that insights from the supplemental study on volunteers' motivations informed the subsequent exploration of their attitudes toward technology. Following Morse's (2010) guidance, the two projects were kept separate and treated as distinct, yet interconnected components. Thematic analysis (Braun and Clarke, 2014) was employed to manually code a subset of interview transcripts and broad themes were developed: relationality and emotions in the supplemental study and emotions, emotionality, technology, and relationality in the core study. Data synthesis involved iterative review and reorganization of data, following the approach suggested by Pope and Turnbull (2017). This process revealed a convergence on the significance of emotionality as a type of behaviour (Archer, 2004) within LLCs. The findings from both datasets were integrated into the narrative results to address the research questions.

Findings

The findings section opens with the presentation of the data from the supplemental study to explain relationality as the context for the social role of the LLC volunteer in an organisation focused on alleviating social isolation. It then turns to the examination of volunteers' use of technology, their pertinent emotional reactions, and their wider concerns about technological threats to relationality, drawing on data from the proof-of-concept study.

The social role of the Lindsay Leg Club volunteer

Much of the volunteers' work was deeply embedded in real social relations with each other and with members who attended for medical and social support. While the LLCs functioned as venues for drop-in access to medical care, the lead of one of the LLCs explained they were social occasions, with volunteering a social role performed by individuals who valued and enacted empathy and attentiveness to others:

'A smile, touch when volunteers greet [members], a smile when they walk in, refreshments and nice food (a treat), willingness of the volunteers to sit and listen – this is the social side.' (volunteer 10)

These emotions were not just personal feelings but were tied to the social role of the volunteer through commitment to alleviating social isolation. The LLCs provided the setting for the enactment of social emotions, but it was down to the volunteers to exercise their agency in deciding how to act. For example, volunteers' agency was manifested in a variety of social activities they organised (raffles, tombola, away-days) depending on their creativity and resourcefulness. One volunteer prided herself on calling large supermarkets and asking them to donate raffle prizes. The social activities were also indicative of a culture of social connectedness, kindness, and psycho-social care – the foundation of the LLCs, which the volunteers reflexively reinforced through their activities:

'I love talking to these elderly people. The stories they've got to tell are amazing and I might be the only person they've seen that week.' (volunteer 2)

In the quote above, the listening activity was also connected with the volunteer's empathy for other people's stories, and her appreciation of members' willingness to share the stories, which emphasised the importance of social self-worth within a community. Indeed, LLCs, as

an age-friendly organisation, created volunteering opportunities for older adults who wanted to respond to community needs or build their own social capital. This, in turn, enabled the LLCs to stay on the local community's radar while playing a fundamental role in reinforcing a sense of collective effort and teamwork:

It is just like a coffee club really, and a keeping together and being with the volunteers, but of course the… the secondary benefit of all that is, that it has kept the volunteers' interest, commitment, and involvement with the members. So, keeping my team together has been really important. (volunteer 10)

In responding to members' needs, volunteers formed real friendships, belonging and compassionate engagement with the community:

'They have become more like friends to me.' (volunteer 2)

One skill that volunteers were expected to have was that of emotion management. Volunteers recognised that their work involved managing their social demeanour in response to members' unique needs and situations.

'I think a lot of it is emotions… You've got to have feelings [long pause] and being self-centred is not the way you need to be if you're going to be here. … To me it's an escape. I've got things going on at home I've got no control over and this gets me four hours a week out and I actually see people and get to talk to people and at home that's not available... I can be broken inside, I can be crying my eyes out inside, but they don't need to know that.' (volunteer 2)

As indicated above, volunteers were aware of the structured expectations to be other-centred, placed upon them by the very role of the volunteer. The choice to meet and reinforce these

expectations was a product of an internal conversation about their skills, their personal values and the expectations around the role of the LLCs volunteer. However, in relating to others, volunteers also derived a great sense of satisfaction in meeting their own needs. They too benefitted from LLCs as a physical space, which was an antidote to their own social and emotional challenges.

The (non)use of technology in Lindsay Leg Clubs

As an in-person service, the LLCs have traditionally relied on a limited use of technology to support administrative responsibilities; each club had a laptop with an inbuilt relational database to collect members' attendance records. Communication about the rota for the volunteers was also supported with use of simple technology such as phone and email. Some volunteers possessed a basic technological proficiency, which gave them a sense of tempered confidence. However, there was sometimes a lack of enjoyment from using technology, preferring instead more familiar analogue communication:

'I can use computers but prefer not to use them.' (volunteer 4)

This conscious decision to avoid technology was a source of frustration for more tech-savvy volunteers who struggled with others' digital disconnect:

'I often send emails to other volunteers, but I'm struggling to get them to read the emails … One volunteer (aged 86) received an email asking her about her availability, but she came in in person to complete the diary because 'she wasn't good with emails." (volunteer 1)

Concerning use of smart devices, many volunteers did not have material access to them, which tied with their lukewarm approach to technology:

'I use nothing, I'm a dinosaur! I have a mobile phone in the car when I'm out in case I need to call, but have no computer, no laptop, no smartphone. I have a 'person of a certain age' phone.' (volunteer 6)

The disinclination to embrace technology was also indicative of awareness on the parts of the volunteers of social structures such as ageism and the digital divide. The feelings of nostalgia, with a preference for a simpler way of living, came with a self-deprecating categorisation of the volunteer as member of the excluded community of technology non-users. Under these circumstances, some of the volunteers showed how they reflexively deployed the age narrative connected with the above-mentioned generational structures to, actually, warrant their choice for in-person communication, helping them maintain their sense of self-worth.

Emotional reactions to (more) technology in Leg Clubs

Volunteers showed curiosity about the potential of a mobile communication technology to improve knowledge about what other LLCs were doing in terms of their administration and their social activities:

'We could talk to each other, share ideas for each other, put any ideas to forward, e.g. 'what are you doing for Christmas'. It would be for communication in the Leg Clubs.' (volunteer 5)

However, despite the initial enthusiasm about diversifying and improving the quality of work in the practical order, volunteers preferred existing, familiar technological solutions that would not require them to engage with change. Therefore, most volunteers emphasised scepticism about the need for app introduction, protecting the status quo of their role as volunteer who used in-person communication or relied on simple familiar technology:

'WhatsApp group would be okay for that, just for volunteers (can't have patients' phone numbers). Zoom could work – one day a week when they aren't all at Leg Club, mainly in the morning, one afternoon, 'We will be all on Zoom from 3pm to 4pm, join if you can, we would love to'.' (volunteer 2)

'I'm not at all confident in IT. I have a mobile phone, which I use for telephoning, WhatsApp text, internet, but don't use any app, can never get around them.' (volunteer 5)

Volunteers' preference for existing communication technologies hinted at the possibility of several barriers to the adoption of new ones as roots of the scepticism. Leg Club volunteers admitted growing up with little technological exposure, hence feeling they lacked familiarity.

'Not sure if people would agree with it – many people lack confidence, lack of devices.' (volunteer 7)

Therefore, the potential introduction of the app caused the volunteers to deliberately refocus in the practical domain on the familiarity and comfort of in-person communication in the presence of one another.

'It is a good idea to get involved with other Leg Clubs, but this can be done by a physical visit and not online … If volunteers want to learn about other Leg Clubs, then they can go and visit.' (volunteer 1)

In navigating the challenges of technology adoption, the volunteers reflexively evaluated the costs of learning to use new tools and their capabilities to use existing solutions, making a conscious choice to prioritise non-app forms of communication. Preferring the more traditional communication techniques in the practical order of existence, non-technologically

mediated ways of communicating gave them a sense of professional competence and achievement in their role.

Preference for traditional roles showed also in the familiarity with and perception of the advantages of using paper forms for filling out organisational documents, possibly because paper documents were more tangible, familiar and easier to handle, thus reducing the possibility of experiencing negative emotions such as frustration and anger in the practical order:

'I can't quite see the need for more digital solutions, as paper-based diary is good enough.' (volunteer 1)

The volunteers' opposition to technology visible above emerged as a form of resistance to a change in the social role, away from a volunteer who relies on in-person interactions, and towards a technology user who is willing to abandon the traditional ways of doing things in times when the society is growing increasingly digital. The volunteers may have had the capabilities to use technology, but as agents they often actively resisted it. In so doing, the volunteers were trying to protect those aspects of their role that they felt most comfortable with and that enabled them to preserve relational continuity while avoiding the disruption and challenges to their identity as an older person:

'I'm too old, I don't want to do that, I'm quite content, I'm in the wrong age group to take that up.' (volunteer 8)

The lack of familiarity with technology that they did not grow up with and, through this prior experience, a lack of desire to learn to use it, evoked the 'too old to learn' narrative.

'Learning a new app would be a big effort…More digital products would be additional mental work, and that would take time away from doing analytical work.' (volunteer 1)

For such volunteers, the perceived complexity and intensity of having to learn the use of digital tools led to disengagement through an expectation of outcomes from the pain of the digital fatigue in the natural order of reality and frustration from spreading oneself too thinly in the practical domain.

Volunteers' concerns about technology and beyond

Importantly, many volunteers expressed the fear of using technology driven by privacy concerns in their lives beyond LLCs. Some feared privacy breaches they had heard about, which made them cautious about online sharing of any personal information to avoid scams.

'I'm not comfortable with social media at all as there have been some horror stories… I don't agree with TikTok, people might not want to be seen on it due to privacy concern or unfamiliarity with the platform never having used it before.' (volunteer 2)

The concern of a privacy breach shows a reflexive awareness of the balancing of the benefits of technology against the harms to their personal security. But, most importantly, there was a strong preference for personal relational communicative dynamics, due to a solid prior appreciation of what good social relations look like, as well as concerns that switching to technology could destabilise and recompose a sense of relatedness in the social domain:

'I prefer socialising in person and being with the patients and in this sense I'm not sure if I would use the app too much.' (volunteer 4)

The quote above illustrates a reflexive consideration about how technology would not support the preference for in-person interaction, but instead displace the social practices the volunteer loved. Even simple technology, like phones, were seen as less real a form of social interaction

that did not allow for the richness of the non-verbal cues, again showing concern about the quality of human relationships in the technologically mediated world:

'At the end of the day, you talk to people not the telephone.' (volunteer 5)

Overall, these quotes demonstrate that the volunteers' concerns about technology extend beyond the practical challenges of using digital tools. They reflect deeper concerns about privacy and the nature of human relationships, the importance of embodied presence, and the potential for technology to disrupt valued social practices.

Archer's insights on emotions and technology: volunteer role exit, reflexive adaptation and relationality

This research used a qualitative case study of Lindsay Leg Club volunteers to explore the emotional reactions of older volunteers to the introduction of digital technology for communication and coordination in an organisation focused on alleviating social isolation. The findings identified volunteers' emotions around: current use of technology, potential new technology, and wider concerns about technology and beyond. This section analyses these findings using Archer's critical realist perspective on emotions in three orders of reality, shedding light on concerns around the fear of volunteer role exit and reflexivity in technology adaptation (Table 1). Weaving the literature on older people's use of technology into the explanation, this section builds a narrative about the need for adaptation in technology adoption by older adults in health and care settings that reflects wider concerns about the threat of technology to relationality.

Table 1. Emotional clusters in Lindsay Leg Clubs volunteering ABOUT HERE

Fear of volunteer role exit and emotional reflexivity in technology adaptation

The emotions evoked by technology indicated volunteers' perception that digital technology could threaten their established roles premised on a relational conception of care and responsibility and provoked reflexive evaluations to technology that supported the possibility of making relational contributions as LLCs volunteers.

One of the important contextual qualities of how LLCs operated is that it was run by and catered for the social needs of an older demographic, who prefer in-person social interaction over technologically-mediated one as more accessible and more engaging (Yuan *et al.*, 2016). The LLCs volunteers saw their role as an expression of their ultimate concern (Archer, 2004), wherein what mattered to them was the provision of simple face-to-face support. The prospect of the introduction of more intensive technological forms of communication that needed to be learnt was experienced with a sense of digital fatigue in the natural order and privacy concerns in the social order. The expected tiredness at the anticipated cognitive effort of learning new skills was exacerbated by awareness of aging and an expected decline in cognitive abilities. The stress about losing personal information was threatening the integrity of a volunteer as members' trusted persons and spilt into volunteers' personal lives beyond the LLCs. In the practical order of reality, these fears also reflected the expectation of feelings of incompetence and inadequacy for the volunteer role, fears of not meeting members' expectations and being of less value to the organisation that would follow if technology were to be adopted. On a deeper level, this also reflected a shift in the volunteer role identity that would follow a forced technology adoption.

Technologically-mediated communication was also perceived as more superficial and not reliable enough to form deep, meaningful social connections (Cone & Lee, 2023). Hence, the hesitation, doubt, scepticism, reluctance, and disinclination in the practical order, combined with nostalgia for a simpler, pre-technology era, and a humorous self-deprecation for

struggling to keep up in the social order. Volunteers saw digital technology as diluting the emotional qualities of human connection. In contrast, in-person communication enabled the volunteers to activate emotional capacities that translated into comforting gestures like offering a drink or a hug, actions not afforded by phone calls. These emotional responses revealed a deep-seated concern: that technology might replace or diminish the emotional support and connection they provide, provoking a sense of collective resistance to change. Therefore, the implementation of digital technology in the LLCs was seen by the volunteers as challenging to their established role.

However, volunteers had agency to respond to these challenges, which they exercised by engaging in a reflexive process that involved weighing the potential benefits of technology against their costs regarding protecting their existing skills, values, and relational preferences. Crucial here was the predominant emotional cluster consisting of hesitation, doubt, scepticism, reluctance, disinclination, combined with and a lack of desire to learn the app. This revealed volunteers' understanding of an objective standard of performance for assessing their technical competence in the practical realm. The social structures of agism and the digital divide were creating conditions that made technology adoption difficult and challenging for older adults. Their emotional responses served as commentaries on this internal evaluation of their agentic responses to these structures. Volunteers agentically chose not to spend their social community time online or technologically engaged. Even those not opposed to technology were less likely to use it, reproducing the age-related digital divide by portraying themselves as technologically excluded.

Implications for relationality

Therefore, volunteers' reflexive responses to technology vis-à-vis structural issues around their position in the ageist society as technology non-users indicated an oppressive potential

of technology to challenge relationality-associated concepts, such as social relations, sense of community and social confidence. Overall, there was a strong sense of valuing personal connections and direct human contact in the spirit of a patient-centred, hands-on focus, with digital solutions seen as inferior in that regards and not a replacement for in-person connections. Volunteers recognised that technology cannot convey emotions as effectively as in-person communication, stripping it of body language and social cues (Lieberman & Schroeder, 2020) that is crucial to creating an emotional connection of the sort that LLCs sought. Perceived superficiality of online ways of communicating, lack of physical presence in proximity to other persons and reduced affordances of technology to convey emotions, so crucial to forming deep social connections, were the reasons why volunteers felt that app-based communication would not foster deep social connections with other volunteers.

In his essay on the politics of post-human technology, Al-Amoudi (2023) argues that technological developments have the potential to change our understanding of humanity, risking, amongst other things, the erosion of social solidarity. Admittedly, by 'post-human', Al-Amoudi (2023) refers to advanced modern technologies, such as human enhancement solutions, metaverses, virtual reality or artificial intelligence. The purported quality of post-human technology is that it blurs humanity's boundaries. Indeed, research shows that, for example, AI can be more effective at diagnosing cancer and nine times more empathetic than doctors – so why not cut out 'the middle man' (O'Mahoney, 2023)? Because the key concern here is that post-human technology can appropriate the domain of social relations. However, this research has shown that this concern holds true for convivial technologies, or technologies that are responsibly limited to be operated by the users and for their own interests, such as mobile communication apps (Illich & Lang, 1973). A discussion of concerns about the use of mobile communication apps can seem outdated to modern academic audiences, but for communities focused on in-person social encounters by design that did not

grow up with technology the fear for its potential to dominate how people interact is real. A smile, or touch as volunteers greet patients would be silenced not just by a post-human technology, but also by a convivial one that too can appropriate the sphere of social exchanges.

Conclusion

This research has been one of the first studies to use Archer's framework on emotions and reflexivity to explore how older volunteers navigate technology in an organisation focused on alleviating social isolation. There is growing attention in the academic literature related to the promising potentials to digital technologies implementation in healthcare to alleviate a sense of social isolation (e.g. Hughes *et al.*, 2024). Instead, this study showed that uncareful introduction of technology in settings for older adults may exacerbate a sense of exclusion. Moreover, while much literature on technology shows emotions as personal subjective reactions or societal scripts, this study examined, instead, how both volunteering and digital adoption are deeply emotional processes built into volunteers' evaluation of the change process, their reflexivity and their internal conversation.

The study revealed that LLCs volunteers have a strong emotional attachment to their role, which is grounded in in-person relations, which technology can threaten. Emotional responses to technology showed as resistance. Therefore, the emotions experienced were not just subjective feelings in the present, but they were fundamental in understanding the constitution of the volunteer role, hence the reflexive evaluation of the emotional costs of the transition, and anxieties about competence and relatedness. Following Al-Amoudi's (2023), when introducing technology into organisations, an equilibrium must be sought between sometimes contrasting considerations, such as operational efficiency on one hand, and big societal issues, such as social isolation on the other.

The study contributes to the tech adoption literature. It shows that rather than being a technical process, the implementation of digital tools requires an appreciation of the intellectual, mental, and emotional aspects of people's experience of them (Pope & Turnbull, 2017) in the context of their wider concerns about how technology can mediate social relations. When applied to older people's resistance to technology, it encourages a consideration of the nuanced factors underlying their reluctance, such as concerns about privacy, security, complexity of the necessary learning, feeling left behind due to lack of confidence or access to tools, or the dilution of sociality – the very thing that in-person, in-flesh communication enables and fosters.

While technology may allow people in care organisations to better communicate and collaborate, it is fundamental to recognise that its mere introduction is not, necessarily, going to result in improved communication. This study has shown the importance of countervailing relational mechanisms, whereby people's preference for in-person communication may reject the technological solution on a democratic level. There is, therefore, the need for sensitivity to the local context and the people within it when introducing technological solutions, especially when the introduction is aimed at people who may not have access to technology, skills in using it, or familiarity and confidence to use it.

References

Al-Amoudi, I. (2023), "The politics of post-human technologies: human enhancements, artificial intelligence and virtual reality", *Organization,* Vol. 30 No. 6, pp. 1238–1245.

Archer, M. S. (2004), "Emotions as commentaries on human concerns", Turner, J. H. (Ed.), *Theory and Research on Human Emotions*, Emerald Group Publishing Limited, Leeds, pp. 327-356.

Archer, M. S. (2020), “The morphogenetic approach: Critical realism's explanatory framework approach”. Róna, P. & Zsolnai, L. (Eds), *Agency and causal explanation in economics*, Vol. 5, pp. 137–150.

Barratt, C., Appleton, P. and Pearson, M. (2020), “Exploring internal conversations to understand the experience of young adults transitioning out of care”, *Journal of Youth Studies,* Vol. 23 No. 7., pp. 869–885.

Blažič, B. J., & Blažič, A. J. (2020), “Overcoming the digital divide with a modern approach to learning digital skills for the elderly adults”, *Education and Information Technologies*, Vol. 25 No. 1, pp. 259–279.

Boucher, E., Honomichl, R., Ward, H., et al. (2022), “The effects of a digital well-being intervention on older adults: Retrospective analysis of real-world User Data. *JMIR Aging,* Vol. 5 No. 3, pp. e39851.

Braun, V. and Clarke, V. (2014), “What can “thematic analysis” offer health and wellbeing researchers?”, *International Journal of Qualitative Studies on Health and Well-Being*, Vol. 9 No. 1, p. 26152.

Cameron, A., Johnson, E.K., Willis, P.B., et al. (2020), “Exploring the role of volunteers in social care for older adults”, *Quality in Ageing and Older Adults,* Vol. 21 No. 2, pp. 129–139.

Canoy, M., Krabbe, Y. and Koolman, X. (2023), “How to handle gerontocracy”, *Journal of Integrated Care,* Vol. 31 No. 2, pp. 158–165.

Cardiff Metropolitan University (2024), *From pumpkin carving to podiatry, leg ulcer patients find new ways to connect and heal at Cardiff Met,* available at: https://www.cardiffmet.ac.uk/news/2024/from-pumpkin-carving-to-podiatry-leg-ulcer-patients-find-new-ways-to-connect-and-heal-at-cardiff-met.php (accessed 31 May 2025).

Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J., & Miene, P. (1998), "Understanding and assessing the motivations of volunteers: A functional approach", *Journal of Personality and Social Psychology*, Vol. 74 No. 6, 1516–1530.

Cone, N. and Lee, J. E. (2023), "Older adult communication types and emotional well-being outcomes during COVID-19 pandemic", *BMC Geriatrics*, Vol. 23 No. 1, p. 178.

Crowe, S., Cresswell, K., Robertson, A., et al. (2011), "The case study approach", *BMC Medical Research Methodology,* Vol. 11 No. 1, p. 100.

Derks, D., Fischer, A. and Bos, A. (2008), "The role of emotion in computer-mediated communication: a review", *Computers in Human Behavior*, Vol. 24, pp. 766–785.

Feather, J. (2023), "Meeting the complex health and social care needs of older adults: A response to the recent viewpoint paper on "how to handle gerontocracy"", *Journal of Integrated Care*, Vol. 31 No. 3, pp. 237–240.

Glaser, J., Overhage, J. M., Guptill, J., Appleby, C., & Trigg, D. (2020), "What the pandemic means for health care's digital transformation, *Harvard Business Review*, available at:

https://hbr.org/2020/12/what-the-pandemic-means-for-health-cares-digital-transformation (accessed 30 May 2025).

Gonella, S., Canzan, F., Larghero, E., et al. (2019), "Hospital volunteering experiences suggest that new policies are needed to promote their integration in daily care: Findings from a qualitative study", *Slovenian Journal of Public Health,* Vol. 58 No. 4, pp. 164–172.

Greening, L. (2021), "*The meaning of volunteering: An investigation into the experiences of volunteers in a changing organisation*", PhD Thesis: Cardiff University, Cardiff.

Hochschild, A. R. (1983), *The managed heart: Commercialization of human feeling*, University of California Press.

Hughes, G., Moore, L., Hennessy, M., Sandset, T., Jentoft, E. E. and Haldar, M. (2024), "What kind of a problem is loneliness? Representations of connectedness and participation from a study of telepresence technologies in the UK", *Frontiers in Digital Health*, Vol. 6.

Illich, I., and Lang, A. (1973), *Tools for Conviviality*, available at: https://o500.org/books/ivan_illich_tools_for_conviviality.pdf (accessed 7 November 2023).

Kruse, R. L., Koopman, R. J., Wakefield, B. J., Wakefield, D. S., Keplinger, L. E., Canfield, S. M. and Mehr, D. R. (2012), "Internet use by primary care patients", *Family Medicine*, Vol. 44 No. 5., pp. 342–347.

Lee, S. (2022), "Volunteering and loneliness in older adults: A parallel mediation model", *Aging & Mental Health*, Vol. 26 No. 6, pp. 1234–1241.

Lieberman, A. and Schroeder, J. (2020), "Two social lives: how differences between online and offline interaction influence social outcomes", *Current Opinion in Psychology*, Vol. 31, pp. 16–21.

McDonnell, A., McKeown, J., Keen, C., et al. (2014), "Introducing on-ward volunteers to work with patients with dementia", *Nursing Older People,* Vol. 26 No. 4, pp. 28-33.

McIntyre, N., Galazka, A. M., Lindsay, E., Bawden, R., & Renyi, R. (2021), "A relational database within the Leg Club Network: An audit", *International Wound Journal*, Vol. 18 No. 2, pp. 233–241.

Morse, J. M. (2010), "Simultaneous and sequential qualitative mixed method designs", *Qualitative Inquiry*, Vol. 16 No. 6, pp. 483–491.

Mutch, A. (2015), "Organizational implications of digital dat, Podcast, Centre for Social Ontology, available at: https://socialontology.org/category/podcasts/ (accessed 7 November 2023).

O'Mahoney, J. (2023), "Demystifying AI for business - Cardiff University talk, Cardiff Business School Breakfast Briefing, 18th October 2023, available at: https://www.youtube.com/watch?v=jkm1xNC_dPg (accessed 7 November 2023).

Overgaard, C. (2019), "Rethinking volunteering as a form of unpaid work", *Nonprofit and Voluntary Sector Quarterly,* Vol. 48 No. 1, pp. 128–145.

Peek, N., Sujan, M., & Scott, P. (2020), "Digital health and care in pandemic times: Impact of COVID-19", *BMJ Health & Care Informatics*, Vol. 27 No.1, e100166.

Pham, M. T. (2007), "Emotion and rationality: A critical review and interpretation of empirical evidence", *Review of General Psychology*, Vol. 11 No. 2, pp. 155–178.

Pope, C. and Turnbull, J. (2017), "Using the concept of hubots to understand the work entailed in using digital technologies in healthcare", *Journal of Health Organization and Management*, Vol. 31 No. 5, pp. 556-566.

Portenhauser, A. A., Terhorst, Y., Schultchen, D., Sander, L. B., Denkinger, M. D., Stach, M., Waldherr, N., Dallmeier, D., Baumeister, H. and Messner, E.-M. (2021), "Mobile apps for older adults: systematic search and evaluation within online stores, *JMIR Aging*, Vol. 4 No. 1, p. e23313.

Prescott, C. (2021), "Internet users, UK: 2020", Office for National Statistics, available at: https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/internetusers/2020 (accessed 5 June 2025).

Proffitt, R., Lange, B., Chen, C., & Winstein, C. (2015), "A comparison of older adults' subjective experiences with virtual and real environments during dynamic balance activities, *Journal of Aging and Physical Activity*, Vol 23 No. 1, pp. 24-33.

Reed, P.B. and Selbee, L.K. (2003), "Do people who volunteer have a distinctive ethos? Dekker, P. & Halman, L. (Eds), *The Values of Volunteering: Cross-Cultural Perspectives*. Nonprofit and Civil Society Studies. Boston, MA: Springer US, pp. 91–109.

Reyes, E. P. G., Kelly, R., Buchanan, G. and Waycott, J. (2023), "Understanding older adults' experiences with technologies for health self-management: interview study", *JMIR Aging*, Vol. 6 No. 1, p. e43197.

Richardson, J. (2018), "I am connected: new approaches to supporting people in later life get online", Centre for Ageing Better.

Robertson, A. R., Cresswell, K., Takian, A., & Petrakaki, D. (2010), "Prospective evaluation of the implementation and adoption of NHS Connecting for Health's electronic health record in secondary care in England: Interim results from a national evaluation", *BMJ*, Vol. 341, c4564.

Salman, S. (2019), "'It's like the light's come back on': Connecting care service users with their communities", *The Guardian*, available at: https://www.theguardian.com/society/2019/feb/05/connecting-care-service-users-communities (accessed 31 May 2025).

Taylor, S., McSherry, R., Cook, S. and Giles, E. (2020), "Exploring the emotional experience of lean", *Journal of Health Organization and Management*, Vol. *35* No. 1, pp. 34-52.

Vaportzis, E., Giatsi Clausen, M. and Gow, A. J. (2017), "Older adults' perceptions of technology and barriers to interacting with tablet computers: a focus group study", *Frontiers in Psychology*, Vol. 8, p. 1687, https://doi.org/10.3389/fpsyg.2017.01687

Vogels, E. A. (2019), "Millennials stand out for their technology use, but older generations also embrace digital life", *Pew Research Center*, available at: https://www.pewresearch.org/short-reads/2019/09/09/us-generations-technology-use/ (accessed 7 November 2023).

Wilson, J. (2000), "Volunteering", *Annual Review of Sociology*, Vol. 26 No. 1, pp. 215–240.

Yuan, S., Hussain, S. A., Hales, K. D. and Cotten, S. R. (2016), "What do they like? Communication preferences and patterns of older adults in the United States: the role of technology", *Educational Gerontology*, Vol. 42 No. 3, pp. 163–174.