The Ripple of Technology: A Literature Review on Examining the Impact of ICT on Tibetan Refugees Through the Lens of Modernity and Postmodernism

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Abstract

Navigating the complex interplay of ICT, modernity, and postmodernity within the Tibetan diaspora, this literature review uncovers the transformative role of ICT in displaced communities. It dissects how ICT influences Tibetan refugees' social networks, cross-border exchanges, and cultural identities amidst geopolitical tumult. We highlight the intricate link between ICT use and cultural preservation, through the lens of modernity and postmodernism. We underline the need for nuanced understanding and further investigation into ICT's impact on displaced populations, considering its multifaceted role in reshaping identities, fostering social mobility, and enhancing overall well-being in our increasingly interconnected and digital world. We identify challenges and opportunities for further research, with a particular focus on elucidating the intricate relationship between ICT and cultural identity, the promise of crowdsourcing for cultural preservation, the protective potential of ICT for cultural identity, and the role of ICT as emancipatory tools in the face of social stratification.

Keywords: Tibetan Refugees, Information and Communication Technology (ICT), Social Interaction, Cultural Identity, Modernity and Globalization.

1. Introduction

In an era where the world has been transformed into a global village by Information and Communication Technology (ICT), society's margins are witnessing a surprising revolution. A group once seen as disconnected and displaced—Tibetan refugees—has been profoundly affected by the sweeping tide of digital modernity (Brinkerhoff, 2012; Wangdak, 2019; Wilding, 2023). This paper takes a discerning look at this seemingly obscure subject and unearths insights with far-reaching implications for our understanding of the modern world.

At the heart of this investigation lies an intriguing paradox. While technology is typically the handmaiden of homogenization and global sameness (Liu et al., 2020), among Tibetan refugees, it serves as a conduit for maintaining distinctiveness (Coelho, 2016). This interaction of the local and the global, the traditional and the modern, prompts a vibrant and complex interplay of identities (Young, 2018).

A critical examination of this phenomenon calls for the adoption of a theoretical lens that reconciles multiple perspectives. It becomes necessary to reach into the thought vaults of theorists such as Gergen (2009), Simmel (Frisby, 1985), and Lyotard (1991), who provide frameworks to make sense of these intertwined narratives of connectivity and identity. By doing so, we tread into the intersection of modernity and postmodernity, a terrain rich with intellectual curiosities that illuminate the Tibetan refugee situation in novel ways. Therefore, we postulate the central research question guiding this literature review: ***How does ICT influence and shape the identities, cultural preservation, and social dynamics among Tibetan refugees? Further, how do these changes reflect upon the theories of modernity and postmodernity?***

To appreciate the symbiotic relationship between technology and Tibetan refugees, we must dive into an in-depth exploration of related literature. This excursion brings together diverse academic strands and stitches them into a cohesive narrative, offering an enriching view of how ICT shapes the lived experiences of Tibetan refugees (Horton & Wohl, 1956; Hussain & Bhushan, 2011). The task ahead is arduous, but the rewards are considerable as we delve into an understudied aspect of our digitized world.

This is not merely an academic pursuit. Unraveling the interplay between ICT and Tibetan refugees' lives holds vital lessons for policymakers and NGOs worldwide (Nath, 2014; Shahi, 2018). It imparts understanding about the transformative potential of technology in the lives of displaced populations—an understanding that can shape future strategies for humanitarian and social aid (Tilly, 2007; Trinley et al., 2021).

In light of the above, this review aims to traverse these uncharted territories, weaving a narrative that is

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both enlightening and instructive (Lamb & Kling, 2003; Osburn, 2014). The paper unfolds as follows:

Following the Introduction, we establish our Theoretical Background. Here, we situate our study within the rich tapestry of existing literature, synthesising seminal works that tackle the evolving narrative of ICT and diaspora studies, as well as the theoretical paradigms of modernity and postmodernism.

The Methodology section elucidates the research approaches used to compile and analyze the information presented in this study. By explaining our research process, we aim to foster a better understanding of the basis on which our conclusions are drawn and the context in which they should be interpreted.

Next, the "ICT and Tibetan Refugees" section sheds light on the empirical, outlining in detail how Tibetan refugees utilize ICT for diverse purposes, from preserving their cultural identity to advocating for their political freedom. This section not only delves into the nascent phenomenon of "Digital Diaspora" but also provides concrete instances of ICT usage among Tibetan refugees, thereby bridging the gap between theoretical understanding and real-world scenarios.

Subsequently, in the " Influence of Modernity and Postmodernism" section, we move from the specific to the abstract. This section explores the philosophical underpinnings that can help interpret the trends and patterns observed in the prior section. It dissects the theories of modernity and postmodernism, illustrating how these frameworks contribute to our comprehension of the ICT usage patterns among Tibetan refugees.

The "Synthesis: Merging Practice and Theory" section weaves together the practical insights gleaned from the study of ICT usage among Tibetan refugees with the theoretical paradigms discussed in the preceding sections. This section aims to coalesce theory and practice, offering a more holistic understanding of the issue at hand.

Finally, in the Conclusion, we encapsulate the main findings of our study, underscore their implications, and suggest potential avenues for future research in this domain.

2. Background

2.1 Why Tibetan Refugees

In an era characterized by digital interconnectedness, the Tibetan diaspora represents a compelling intersection of technology, culture, and geopolitics, which resonates with the paper's broader theme. The Tibetan refugee community doesn't just interact with ICT as a functional necessity; they employ it as a pivotal strategy for cultural preservation and political mobilization (Brinkerhoff, 2012; Wangdak, 2019). As highlighted in the abstract, the utilization of ICT among Tibetan refugees extends beyond mere tool use and dives into shaping social interactions, cultural identity, and the complexities of the 'relational self.' Given this layered engagement with technology, the Tibetan refugee experience is a fertile ground for exploring our paper's key areas of inquiry, which include social networks, cross-border exchanges, and the quest for self-identity amidst geo-political disruptions.

2.2 Distinguishing Tibetan Refugees from Other Displaced Populations

Our paper aims to scrutinize the unique ways in which Tibetan refugees interface with ICT to navigate their "relational selves" and communities across borders. The concept of the "relational self" speaks to the idea that individual identity is not constructed in isolation but is intrinsically connected to social relationships and cultural contexts. Instead of seeing the self as an autonomous entity, the "relational self" posits that who we are is fundamentally tied to our interactions and relationships with others. This idea resonates with postmodern conceptions of fragmented and contextual identities (Gergen, 2009).

For Tibetan refugees, the "relational self" becomes particularly salient when considering their engagement with ICT. In a world where they are physically separated from their homeland and often dispersed across various countries, ICT serves as a bridge to maintain their sense of self through relations with their community, both locally and globally. ICT platforms allow them to sustain critical relationships that affirm their cultural identity, engage in social support networks, and even participate in political activism (Brinkerhoff, 2012; Coelho, 2016).

The Tibetan case is distinct from other refugee situations; their utilization of ICT serves a broad socio-political agenda that encompasses cultural preservation and organized advocacy (Shahi, 2018; Wilding, 2023). This makes the Tibetan diaspora uniquely positioned for the type of nuanced investigation our paper pursues. The distinctiveness of their situation underscores the necessity for a specialized literature review, as outlined in the abstract, to contribute a more nuanced understanding of how ICT impacts diverse populations and societies.

Therefore, understanding the particularities of the Tibetan diaspora is not just an academic exercise but a necessary prerequisite for more effective design and

deployment of ICT solutions aimed at fostering both cultural identity and social well-being.

2.2 Theoretical Background

This exploration of Tibetan refugees' usage of ICT weaves through a rich tapestry of theoretical perspectives. At the onset, we grapple with the dual-edged power of digital technologies, encapsulated in the concept of "Digital Diasporas" (Brinkerhoff, 2012). The concept of "Digital Diasporas" refers to the virtual communities that diasporic populations, such as Tibetan refugees, form online to maintain cultural ties, share information, and engage in collective actions despite geographical separation (Brinkerhoff, 2012). These digital platforms become a pivotal space where displaced individuals can enact their identities, navigate complex social landscapes, and exert influence both within their community and in the broader socio-political contexts they inhabit. These technologies both empower diaspora communities to challenge traditional power structures and present them with unique challenges.

Modern times have hurled the Tibetan diaspora into a whirlwind of rapid changes. Navigating through this storm, they find themselves caught in an era of modernity defined by space-time separation within a network society (Liu et al., 2020), an echo of Simmel's sociological perspective on modernity (Frisby, 1985). The digital "spaces" and nebulous "times" that the refugees inhabit and the relational essence of their being underline the complexity of this transition (Gergen, 2009). Digital technologies, in this case, serve as more than mere tools for communication; they become virtual "locales" where the Tibetan culture is performed, preserved, and even transformed. Through active participation in digital diasporas (Brinkerhoff, 2012), Tibetan refugees not only keep in touch but also participate in virtual events, religious rituals, and cultural dialogues that would be impossible to attend physically due to spatial and temporal constraints. Online platforms thereby become spaces of both "real-time" interaction and asynchronous exchanges, facilitating a continuity of communal engagement despite the fractured nature of the diaspora.

Faced with a global, digitised world, Tibetan refugees wield ICT as a tool to construct a narrative of identity as varied and contentious as the stories they tell. They reject the dominance of overarching narratives and instead, craft "petit narratives" that speak to their diverse local stories (Lyotard, 1991). The intimate digital communities they foster, albeit paradoxically through a lack of physical presence, are testament to the paradox of "Para-social Interaction" (Horton & Wohl, 1956). Lamb and Kling's (2003) finding serves as a reminder that Tibetan refugees are not merely recipients of technology; they are also active participants who shape and are shaped by digital systems. This perspective characterises the dynamic nature of their interaction with ICT.

This melange of theoretical perspectives provides a multidimensional lens to examine the digital lives of Tibetan refugees. It sheds light on the intricate dynamics that shape their experiences and serves as a guiding compass in the subsequent analysis.

3. Methodology

The methodology for this literature review is guided by the established Information Systems research frameworks (Webster & Watson, 2002). This literature review specifically focuses on the use and impact of ICT by Tibetan refugees in terms of their social interactions and cultural identities.

To begin the data collection process, a comprehensive search strategy was employed across the following databases: Google Scholar, AIS eLibrary, ACM Digital Library, and IEEE Xplore. Our search terms included combinations of "Tibetan Refugees", "ICT", "social interaction", and "cultural identity". These terms were tailored to each database's specifics to improve the efficacy of the search results (Webster & Watson, 2002).

The selected articles were then screened based on their titles and abstracts, with the full texts of potentially relevant studies further reviewed. Inclusion criteria were studies that explicitly examined the use of ICT by Tibetan refugees and the resultant impacts on their social interactions and cultural identity. Studies were excluded if these topics were only marginally mentioned, or if they were not available in full text. The data extraction process was guided by the Critical Literature Review methodology, which involved a comprehensive review and critical analysis of each study (Vom Brocke et al., 2009). We extracted information including the study's purpose, methods, and main findings, and evaluated the quality of each study based on the rigor of its research design, sample size, and clarity of its findings (Webster & Watson, 2002).

Applying the methodologies outlined, the following section delves into a focused examination of the role and impact of ICT within the Tibetan refugee community.

4. ICT and Tibetan Refugees

The 21st-century Tibetan diaspora, shaped by forced migrations, stands as a compelling testament to

the indomitable spirit of humankind and its quest for identity and survival. A crucial part of this struggle is the innovative use of ICT by Tibetans in exile, which has played a transformative role in fostering their distinct cultural identity, enabling social networking, and advocating for their political cause (Brinkerhoff, 2012; Wangdak, 2019).

The potent tool of ICT has aided Tibetan refugees to connect with their homeland, while simultaneously carving out a "digital Tibet," an interactive space that nurtures their traditional culture and communal connectivity (Coelho, 2016). Such dynamic usage of ICT harmonizes with Georg Simmel's assertion of modernity being a social interaction mediated by objects, where ICT becomes the significant 'object' mediating interactions amongst the dispersed Tibetan population (Frisby, 1985).

Digital diaspora, the process by which displaced individuals maintain connections with their homeland through digital means, has been instrumental in this context. Brinkerhoff (2012) pointedly highlights the case of "TibetBoard," a digital platform, as an exemplary instance of digital diaspora where displaced Tibetans challenge traditional power dynamics, empowering their community by exchanging essential information and support.

The claim that this platform "challenges traditional power dynamics" warrants further elaboration. In the Tibetan diaspora, traditional power dynamics often encompass not just political subordination, but also cultural marginalization enforced by both host countries and the global community at large. There exists a hierarchy of voices, wherein mainstream narratives frequently drown out or oversimplify the nuanced realities and grievances of displaced Tibetans.

TibetBoard disrupts this imbalance in several significant ways. First, it serves as a democratized forum where individual Tibetans can directly share firsthand accounts, breaking away from potentially skewed portrayals by external media outlets (Brinkerhoff, 2012). By taking control of their narrative, the community challenges the conventional flow of information, which typically moves from larger, more powerful entities to smaller, marginalized groups.

Second, TibetBoard allows for a plurality of voices within the Tibetan community itself, thereby challenging internal traditional dynamics related to age, social status, or geographical origin. Elders, youth, urban, and rural Tibetans can interact on equal footing, with each having an equal say in community matters (Brinkerhoff, 2012). This challenges internal hierarchies and creates a more horizontally structured dialogue within the diaspora.

Third, the platform enables the mobilization of resources—be it rallying support for political activism or collecting funds for cultural preservation initiatives (Brinkerhoff, 2012). Traditional power dynamics often constrain resource allocation, favoring mainstream or "acceptable" causes. However, TibetBoard provides an alternative channel, allowing the diaspora to direct resources in a way that they deem most meaningful and urgent.

Therefore, TibetBoard not only operates as a nexus for community building but also as a counteractive force against ingrained power imbalances, both externally and within the Tibetan community. It renegotiates the terms of visibility, voice, and resource allocation in ways that challenge and subvert established power dynamics.

ICT's emancipatory pedagogy, as Young (2018) suggests, facilitates cultural identity restoration, an outcome echoed in the Tibetan diaspora's experience. Tibetan refugees have used ICT to generate and propagate Tibetan language etexts (Trinley et al., 2021), reinforcing cultural continuity and identity amongst younger generations who have never seen their homeland. This resonates with the works of Gergen (2009), who espouses the idea of 'relational being' where individual identity is deeply interwoven with their relational ties within a community.

Equally noteworthy is the influence of ICT in creating para-social interactions amongst the diaspora. Paralleling the observations of Horton and Wohl (1956), the Tibetan refugees, through their ICT use, seem to create a sense of "intimacy at a distance," fostering relationships that mitigate the alienation intrinsic to the diaspora experience. In the context of Tibetan refugees and ICT, "intimacy at a distance" takes on a similar role to the psychological connection or closeness that can be established without physical proximity, but more profoundly essential. For a community dispersed across different geographical locations, ICT allows for the preservation and even the strengthening of emotional and social ties despite the absence of physical closeness. This enables a level of psychological intimacy among community members who are not co-located, thus acting as a buffer against the feelings of alienation or isolation that often accompany the diaspora experience. Through platforms like TibetBoard and social media, Tibetan refugees can maintain relationships, share information, and foster a collective identity that transcends geographical boundaries. This digital intimacy at a distance becomes a pivotal coping mechanism, helping to retain a semblance of community and cultural continuity in the face of dislocation.

In the context of the Tibetan refugees, their usage of ICT also reflects a potent convergence of modernity and postmodernism. Following Liu et al. (2020) 's concept of "space-time separation" in network societies (see detailed explanation in section 5.2), the Tibetan refugees leverage ICT to overcome their geographical dispersal and temporal constraints, effectively compressing "space and time."

Additionally, their "virtual Tibet" creation, which serves as a platform to represent diverse voices, resonates with Lyotard's (1991) postmodern critique of grand narratives, endorsing a plurality of "petite narratives." Lamb and Kling (2003) offer another lens to view these interactions, encouraging a reinterpretation of users as "social actors," a role that the Tibetan diaspora fulfills aptly in their ICT use.

Despite these advances, challenges persist. The need for further research lies in exploring strategies to maximize ICT's positive impact while minimizing potential drawbacks, such as cultural erosion and digital divide issues. However, the resilience demonstrated by the Tibetan refugees in harnessing the potential of ICT to foster their community and further their cause remains an intriguing exploration of the intersection of technology, culture, and displacement.

4.1 Reconstruction of social interaction

4.1.1 Expanding Social Networks. ICT is emerging as an influential platform for maintaining and cultivating diverse social bonds among contemporary Tibetan refugees (Nath, 2014; Osburn, 2014). Commonly, when these individuals breach new international territories, they establish resilient social support structures, instrumental in navigating unfamiliar urban landscapes (Hussain & Bhushan, 2011). These networks, tethered to family, friends, and work, can be sustained and rapidly expanded courtesy of the technological revolution.

Advancements in communication and digital media have enriched the Tibetan refugees' communicative repertoire. While traditional Tibetan society rested heavily on in-person communication (Childs, 2012; Shahi, 2018), the modern refugee cohort deftly manoeuvres ICT to surmount spatial and temporal barriers. ICT mediums like messaging, phone calls, and mobile internet have become their communication lifeline (Shahi, 2018; Childs, 2012). Trust and safety persist as the pillars of these interactions, which predominantly orbit around primal relationships such as kinship and shared geographical origins. Homophily, the gravitational pull towards those with shared identities and experiences, underscores the communication dynamics of modern Tibetan refugees (Tilly, 2007; Nath, 2014; Osburn, 2014).

4.1.2 Harnessing Secondary Social Capital. ICT also plays a pivotal role in augmenting and capitalizing on social networks and resources (Osburn, 2014; Wangdak, 2019). Modern Tibetan refugees, while preserving a myriad of primary social relationships, demonstrate lower reliance on primary social capital compared to their traditional counterparts. Their diverse educational credentials empower them to tap into a broader spectrum of social resources, including valuable academic connections, a resource often scarce for the older Tibetan cohort.

Historically, migration was synonymous with severing old social ties for Tibetan refugees. But the advent of social media and communication software has disrupted this pattern, preserving potential connections at minimal cost (Brinkerhoff, 2012; Osburn, 2014; Coelho, 2016).

The social ecosystem of contemporary Tibetan refugees, while maintaining strong familial and kinship ties, mirrors a paradigm shift towards classmates, colleagues, and friends (Nath, 2014; Osburn, 2014; Wangdak, 2019). This transition signifies a dilating social network with a reorienting social nucleus gravitating towards their adopted city.

4.2 Navigating Cross-Domain Social Networks

Giddens' concept of "disembedding" (Liu et al., 2020) encapsulates the "lift-out" and "reconnection" or "reorganisation" of social ties in a divergent space-time continuum. The contemporary Tibetan refugees' employment of ICT acts as their compass in these disembedded, alien environments (Coelho, 2016).

4.2.1 Chain Migration. Chain migration, identified by Charles Tilly (2007) as a prevalent migration variant, operates on a "one-to-one" flow pattern, with blood and geography as the cardinal threads. These networks not only spur chain migration but also provide a secure, economical conduit for labour flow. The proliferation of mobile communication has accelerated the information and relationship nexus, equipping migrants with the intelligence necessary for informed decisions.

4.2.2 Translocal Networks. Translocal networks, spanning multiple locations such as migrant-dominated villages or businesses, cover all forms of regional connections (Tilly, 2007; Childs, 2012). The "out-of-local" relationship matrix, coupled with mobile internet development, has bestowed

Tibetan refugees with the capability to avail market-oriented social services and social mobility (Wangdak, 2019; Coelho, 2016). These networks enable refugees to broaden weak social connections, thereby enhancing their online autonomy and participation.

5. The Influence of Modernity and Postmodernism - A Theoretical Perspective

5.1 Modernity and ICT as "Social Actor"

Modernity is characterized by a strong emphasis on rationality and progress, with a focus on the increasing power of scientific knowledge and technological innovation. In line with this, modern perspectives view ICT not just as a tool, but as an active social actor. Drawing from the work of Lamb & Kling (2003), we see that the role of ICT extends beyond a means of communication or information dissemination. Instead, it is seen as a significant influence on social structures and practices, with the potential to bring about deep changes in societal relations.

In the context of the Tibetan diaspora, the active role of ICT as a social actor is evident. Digital platforms such as TibetBoard emerge as more than channels for communication. They form digital "agoras" where the exchange of ideas and formation of collective narratives occur. These platforms enable diaspora Tibetans to challenge traditional power structures, as highlighted by Brinkerhoff (2012), and to engage in new forms of social interaction that are distinct from those in their physical environments.In conclusion, the interplay of modernity and postmodernism has significantly shaped the Tibetan refugee experience, particularly through ICT interactions. The influence of these frameworks is evident in the creation of a 'digital Tibet,' the convergence of various narratives, and the assertion of individual and collective agency. This offers a rich tapestry of insights into the ways displaced communities engage with technology, reflecting their resilience, creativity, and adaptability in the face of adversity.

5.2 Space-Time Separation and Digital Structuration

A defining characteristic of modernity is "space-time separation" (Liu et al., 2020), where local happenings can be shaped by events occurring many miles away, and vice versa. In terms of ICT, this aspect of modernity has profound implications. "Space-time separation" is a concept that delves into the manner in which modernity, particularly as enhanced by the advancements in ICT, breaks the conventional boundaries of space and time. In its essence, space-time separation refers to the phenomenon wherein spatial distances become less significant barriers, and events in one location can instantaneously impact another location, regardless of the physical distance between them. Traditional geographic and temporal constraints are transcended, enabling the formation of cohesive communities despite the challenges of displacement.

The Tibetan diaspora utilizes ICT tools to create a "digital structuration," fostering communal ties, shared narratives, and collective identities across the vast expanse of their dispersion. These tools facilitate a kind of "para-social interaction" (Horton & Richard Wohl, 1956), offering a sense of intimacy and shared experience that extends beyond physical presence. This concept has evolved to include the connections people form online with individuals they may never meet in person. For Tibetan refugees, this manifests in a variety of ways: they can watch videos from Tibetan cultural festivals, participate in group chats dedicated to Tibetan politics, or follow the lives of other Tibetans around the world. Therefore, modernity's "space-time separation" is actualized through the digital realms inhabited by the Tibetan diaspora.

5.3 Postmodernism, Multiplicity, and the Virtual Tibet

Contrasting with the grand narratives and the focus on unity and consensus in modernity, postmodernism places emphasis on multiplicity, fragmentation, and the deconstruction of grand narratives. The term "multiplicity" in the context of postmodernism refers to the existence of multiple perspectives, interpretations, and meanings rather than a singular, overarching truth or narrative. Unlike modernist approaches, which often seek to find universal principles or unifying theories, postmodernism celebrates the diversity of human experience and thought. It recognizes that perspectives are often rooted in specific cultural, social, or individual contexts and thus resists any attempt to elevate one as more valid or important than another. ICT platforms cater to these postmodern values by amplifying multiple voices within the Tibetan diaspora, creating space for diverse experiences and interpretations.

This is manifest in the creation of a "virtual Tibet," a digital space that allows for the co-creation of a heterogeneous, dynamic narrative (Coelho, 2016). This "virtual Tibet" mirrors the multiplicity and

plurality of postmodernism, offering a platform for a variety of narratives to be heard and validated. It's a space that showcases the richness and complexity of the Tibetan diaspora's experiences and perspectives.

5.4 Modernity, Postmodernism, and Power Dynamics

Both modernity and postmodernism feature shifting power dynamics and identity negotiations. For the Tibetan diaspora, ICT platforms provide a stage to challenge and renegotiate traditional power structures and identity constructs. The "petite narratives" of postmodernism, expressed through individual and sub-group digital storytelling, can disrupt and challenge the "grand narratives" of dominant power structures, echoing the thoughts of Lyotard (1991).

5.5 The Interplay of Modernity, Postmodernism, and Structuration Theory

The complex dynamics of ICT use among the Tibetan diaspora reflect a mix of modernist and postmodernist influences, understood through the lens of structuration theory. This theory, exemplified in Orlikowski's work, considers the recursive relationship between individuals and the social structures that they both create and are constrained by.

The Tibetan diaspora's use of ICT illustrates this dialectic process – the use of digital platforms, which are essentially modern artifacts, fosters the creation of new social structures. At the same time, these structures influence how ICTs are used and adapted. Here, modernity's emphasis on progress and innovation intersects with postmodernism's focus on plurality and the destabilization of grand narratives.

However, this interplay also brings forth inherent contradictions. The adoption of modern ICT tools might risk diluting cultural heritage, leading to the loss of traditional norms and values. This tension, inherent in the adoption of digital technologies, is amplified for the diaspora, as their very survival as a community hinges on the preservation of their unique culture.

Meanwhile, postmodernism's emphasis on the plurality of narratives could disrupt the collective voice of the diaspora, potentially fragmenting their shared identity. It raises the question of how a displaced community can preserve a sense of unity and continuity while accommodating a multiplicity of voices and experiences.

From a theoretical perspective, the influence of modernity and postmodernism on the Tibetan diaspora's ICT experiences is a dynamic, complex process, marked by tensions and contradictions. This process underscores the potential of ICT as a transformative social actor, highlights the struggle between preservation and transformation, between unifying narratives and fragmented voices, and between traditional structures and emergent digital dynamics.

In the "ICT and Tibetan Refugees" section, we delve into the empirical realm, chronicling the myriad ways in which Tibetan refugees deploy ICTs. This section also sheds light on the emerging concept of "Digital Diaspora"—an intersection of technology and displacement, a novel paradigm shaping the refugee experience. Here, we focus on the specific modalities and instances of ICT engagement among Tibetan refugees.

In contrast, the "Influence of Modernity and Postmodernism" section unearths the theoretical scaffolding that can elucidate the observed trends and patterns from the previous section. This exploration immerses us in the philosophical undercurrents of modernity and postmodernism, dissecting how they fashion a comprehensive framework to interpret ICT use among the Tibetan refugee population. This section shifts the lens from the descriptive to the interpretive, rendering a theoretical perspective on the interplay between displacement and technology.

6. Synthesis: Merging Practice and Theory

Delving into the heart of Tibetan refugees' digital experience, we find a confluence of theoretical perspectives and practical engagements - a remarkable interplay of modernity, postmodernism, and the transformative use of ICTs. In this synthesis, we will navigate the entwining of theory and practice and explore the depth of this nexus, specifically as follows.

Revisiting Modernity in the Context of ICT: As Tibetan refugees traverse the digital landscape, they create a modern social organization, a construct that reflects the underpinnings of Simmel's modern society (Frisby, 1985). Yet, their adaptation surpasses the simple application of a sociological concept. This displaced community uses ICTs as the vessels of their cultural identity (Brinkerhoff, 2012; Wangdak, 2019), thus simultaneously embodying the classic dichotomies of modernity: unity and fragmentation, continuity and change. While ICTs unify this dispersed population, they also highlight the inherent differences within the community. Likewise, while ICTs act as bridges to their ancestral roots, they are also vehicles of change and transformation, signifying the dualities of modern life (Liu et al., 2020).

Postmodernism and Deconstruction of "Monolithic Identity": The exploration of Tibetan

refugees' digital narratives reveals a unique alignment with postmodern thinking (Lyotard, 1991). What emerges is not a monolithic Tibetan identity but a mosaic of voices and experiences, a vibrant testament to the plurality of their existence. As these individuals engage with digital platforms, they disrupt the homogeneity often associated with displaced communities, breathing life into Lyotard's notion of "end of grand narratives." The diversity of narratives seen in the "virtual Tibet" is a powerful reflection of this postmodern ethos, giving space to the manifold lived experiences of the diaspora (Coelho, 2016).

This complexity becomes especially evident when ICT enables the expression of multiple Tibetan voices, each contributing to a richer, more nuanced collective identity. Far from a monolithic, unified identity, what we find is a mosaic of perspectives that, while grounded in shared cultural elements, reflect a broad range of experiences, viewpoints, and even contradictions. This multi-voiced narrative captures the plurality of Tibetan existence, which, in turn, enriches our understanding of how Tibetan refugees negotiate their identities in a digitally connected, postmodern world.

The Fusion of "Social Actor" Theory and Digital Engagement: The Tibetan refugees' strategic use of ICTs brings to life Lamb and Kling's concept of "users as social actors" (Lamb & Kling, 2003). These individuals are far from passive recipients of technology; instead, they exhibit agency in their interactions with ICTs. Their actions underline a complex interplay of technology and social practices, demonstrating the refugees as active agents shaping their digital experiences (Young, 2018).

This synthesis, layered and multifaceted, affords a more holistic understanding of Tibetan refugees' engagements with ICTs. By interweaving theory with practice, it elucidates the depth and complexity of the displaced community's digital landscape, marking their resilience and their innovative use of modern tools to forge their identity and sustain their cultural roots in a foreign land. The Tibetan diaspora's digital journey is a testament to the transformative power of technology when guided by human agency and cultural resilience (Hussain & Bhushan, 2011). In a broader context, this synthesis provides a nuanced lens to examine the role of technology in addressing the challenges of displacement and identity negotiation in an increasingly digital world (Young, 2018).

7. Challenges and Opportunities

A primary challenge in studying ICT and Tibetan refugees is the difficulty in capturing the complex interaction between ICT usage, cultural preservation, and identity formation. While previous studies provide us with a broad understanding, there is a lack of in-depth, IS-focused research on the mechanisms by which ICTs influence cultural identity among Tibetan refugees. A nuanced, process-oriented understanding of how refugees use, adapt, and react to these systems in their daily life is needed (Lamb & Kling, 2003).

Second, it is critical to understand how ICTs contribute to the formation and maintenance of the digital Tibetan diaspora. As Brinkerhoff (2012) highlights, digital diasporas challenge traditional power structures. How these dynamics play out among Tibetan refugees, and how this influences their interactions with ICTs, is a complex issue that demands attention.

Third, there is a pressing need to further explore how Tibetan refugees use ICTs to create and disseminate cultural knowledge. Trinley et al. (2021) points towards the potential for crowdsourcing platforms like OpenPecha in disseminating cultural knowledge. However, the processes involved in creating, verifying, and sharing such knowledge within and beyond the community through these platforms remains underexplored.

Fourth, the role of ICTs in the potential social mobility of Tibetan refugees is a topic that requires deeper investigation. While the increased spatial mobility due to mobile communication technology is evident (Liu et al., 2020), whether it fosters social mobility within the context of the Tibetan diaspora is unclear.

In conclusion, these challenges underscore the need for focused IS research that takes into account the specific context of Tibetan refugees and their unique relationship with ICTs. This will allow for a more comprehensive understanding of the impact of ICTs on displaced populations and the preservation and evolution of their cultural identities (see Table 1 for opportunities). When referring to "identity preservation," we mean the deliberate use of ICT tools to maintain and propagate distinct cultural, linguistic, and traditional practices within the Tibetan diaspora. By harnessing the power of digital platforms, communities can document their heritage, communicate in their native languages, and create digital repositories of customs and histories. Thus, this not only prevents cultural erosion but also enables a form of cultural transmission to younger generations and wider audiences, fortifying the Tibetan identity in the face of globalization and displacement.

Table 1 Research Opportunities

Oppo.	Descriptions and potential research questions
ICT-Cultural	There's a clear relationship between the Tibetan diaspora's ICT usage and cultural identity preservation, as highlighted by Wangdak's

Identity Nexus	(2019) qualitative research. However, the theoretical model explicating this connection remains underdeveloped. Future research should endeavor to quantify this relationship, possibly elucidating correlations or causative factors between digital engagement and cultural preservation efforts (Shahi, 2018; Wilding, 2023). • *How does the use of ICT influence the preservation of cultural identity among the Tibetan diaspora?* • *What aspects of Tibetan culture are most influenced or preserved through the use of ICT?* • *How does the level of digital literacy affect this relationship?* • *How can quantitative methods be used to model the relationship between ICT usage and cultural preservation?*
Crowd-sourcing Culture	Trinley et al.'s (2021) initiative on the digitalization of Tibetan E-text via a crowdsourcing platform, OpenPecha, signals a significant opportunity to harness collective intelligence in preserving and disseminating Tibetan culture. • *How effective is the OpenPecha platform in preserving and disseminating Tibetan culture?* • *What are the key factors that contribute to the success or failure of such crowdsourcing initiatives?* • *How could other displaced communities utilize similar platforms to preserve their own culture?*
Tech for Identity Protec-tion	Explore how ICT tools, like TibetBoard, can protect cultural identities of displaced populations (Brinkerhoff, 2012). • *How can ICT tools be designed or repurposed to protect the cultural identities of displaced populations globally?*
Beyond Binary Think-ing	Examine the complex relationship between global context and cultural identities of transnational refugees (Wangdak, 2019). • *How can complex systems theories be applied to better understand the relationship between the global context and cultural identities of transnational refugees?*
ICT as Emanci-patory Tools	Investigate the intermediary role of ICTs in preserving Tibetan culture and shaping refugees' cultural identities (Young, 2018; Oreglia & Srinivasan, 2016). • *What roles do ICTs play in the personal and community-level efforts to maintain cultural identity among Tibetan refugees?* • *How can the emancipatory potential of ICTs be maximized for the benefit of displaced communities?*
ICT and Social Mobi-lity	Determine if increased ICT usage among Tibetan refugees correlates with increased social mobility. • *How has increased ICT usage influenced social mobility among Tibetan refugees?* • *Are there specific ICT tools or practices that have been particularly impactful in promoting social mobility?* • *How does this ICT-facilitated mobility interact with existing social structures within the refugee community?*

8. Limitation and Acknowledgement

One limitation of the present study is the applicability of its findings to other ethnic minorities. While the research initially aimed to offer insights specifically into the Tibetan refugee experience, the results may be generalized to other displaced populations. This calls for a deeper exploration into what specific characteristics of the Tibetan diaspora affect the influential mechanisms of ICT. For instance, the Tibetan experience of political exile, distinctive linguistic attributes, and unique religious beliefs, all provide avenues for further research to understand the specificity of ICT impact on this community.

We would like to acknowledge that while this paper discusses the impact of ICT on Tibetan refugees, it does not aim to delve into the complex political landscape between Tibet and China. Our focus is primarily on understanding the transformative role of ICT in shaping the experiences of the Tibetan diaspora within the frameworks of modernity and postmodernity. Consequently, while political factors inevitably contribute to the context in which Tibetan refugees live and use technology, they are outside the scope of the present investigation. We advise that recommendations made based on this study consider the unique political sensitivities of each specific refugee or displaced population.

9. Conclusion

The profound transformation wrought by ICT in today's society extends far beyond what is easily perceptible. Particularly among displaced populations, such as Tibetan refugees, the relationship between ICT usage and cultural identity preservation is intricate and profound. Drawing from a comprehensive array of scholarly works, we located this narrative within broader theoretical perspectives of modernity and postmodernity, illuminating the intricate interplay that these ideologies share with the usage of ICT. In our investigation of the Tibetan refugees' social networks, cross-border exchanges, and their quest for self-

identity and self-actualisation amidst geopolitical disruptions, we found that ICT continually reconfigures the boundaries of location, identity, and community.

This literature review brought to the forefront the transformative influence of ICT which often lies beneath the surface, extending beyond what is immediately discernible. Among displaced populations like the Tibetan refugees, we identified a deeply significant connection between ICT usage and cultural identity preservation, which we suggest should be explored further in future research.

The opportunities identified in this review encourage further research to delve deeper into the complexities of ICT usage within displaced populations and their impact on cultural preservation. As researchers in IS, we have a duty to illuminate these complexities, taking the step beyond conventional binary perspectives and embracing a more nuanced understanding. This understanding may ultimately contribute to designing ICT tools and practices that not only preserve the rich cultural identities of displaced populations but also foster their social mobility and overall well-being.

By merging practice and theory, this review underscores the dynamic and complex nature of ICT's role in modern society. Although our understanding is continually evolving, one thing remains clear: ICT is not merely a tool but a critical participant in shaping and preserving cultural identities in a world that is ever more interconnected and digital. As IS researchers, we are called upon to explore these complexities, moving beyond binary perspectives to design ICT tools that not only safeguard cultural identities but also enhance the overall well-being of displaced communities.

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