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The Role of Social Media in Negotiating Identity During the Process of Acculturation

INTRODUCTION

“I love and I hate Facebook. I love it because I can keep in contact with my friends back home, join lots of groups and societies that I am a member of now, and post the amazing stuff that I am doing in London. But I hate it because my mum, dad and aunties back home are watching everything I do. They once phoned me up angry that there were pictures of me drinking alcohol when I should be studying. I am constantly worried about what they will see so I make a lot of effort to control the photos of me that are posted and tagged.”

The vignette above illustrates the complex role Facebook plays in the identity negotiations of an international student during the acculturation process i.e. the adaptation of migrants to the norms of different cultures (Cleveland and Laroche, 2007). Here, Facebook offers Vishu both rich opportunities for aligning his identity with his host culture (UK) (e.g. joining local groups), but also provides challenges due to the surveillance of his online persona by members of his home culture (India). Though a small body of Information Systems (IS) scholars have examined how Information Communications Technology (ICT) plays a role in the acculturation process (e.g. as a communication tool (Vancea & Olivera, 2013)), the potential interplay of ICT with users’ identities during this process has been largely neglected. It is this topic we aim to explore, focusing on the role of social media.

We characterise international students as transient migrants, using this term to describe those who have crossed a national border and moved to another country with the intention of staying for a limited period of time. The transience refers to the relatively short amount of time spent abroad (although for some this may vary), nevertheless, such migrants are known to undergo the acculturation process (e.g. Butcher, 2002). Such transient migrants are large adopters of social media; defined here as Internet-based applications that allow for communication, along with the creation and exchange of user-generated content regardless of distance (Kaplan and Haenlein, 2010; Sawyer and Chen, 2012).

Identity has been widely researched across the social sciences, with significant variation in its conceptualisation (Stryker and Burke 2000). Here, we view identity as the answer to the question ‘Who am I?’ relative to personal or social reference points (Vignoles et al. 2011; Carter and Grover, 2015). Such references may be associated with social groups
(e.g. cultures), roles (e.g. parenthood) or personal characteristics (e.g. bravery). Identity has been framed in personal and social terms; personal identity relates to reference points that are purely personal and not contingent on social relations, whereas social identity is the opposite (Oyserman, 2001) wherein cultural identity is part of one’s social identity. Furthermore, based on Oyserman (2009), enacting identity can involve either thinking about ‘who one is’ (identity-cognition) as well as behaviours to maintain a desired stance (identity-behaviour). Vishu practices identity-cognition when worrying about how he is perceived by family members, and he enacts identity-behaviour when he ‘un-tags’ photographs on social media.

The paper adapts Carter and Grover’s (2015) tripartite conceptualisation of information technology identities. Within identity-related research in Information Systems, they found that information technologies exist as mediums, determinants and consequences of identity. As a determinant, IT shapes identities by altering the nature of the roles individuals enact e.g. allowing people to work from home (Brocklehurst, 2001). As a consequence, IT is the outcome of individual or group identity projects e.g. those with a common interest may set up a virtual community (Ren et al., 2012; Tsai and Bagozzi 2014). Last, as a medium, IT is used for verifying existing identities and presenting these to others, an area of research most commonly addressed through the lens of impression management (Carter and Grover, 2015). This is a useful review and we adopt this framework to further understand the role of technologies on identity.

The present research intends to contribute to a broader and longstanding research agenda in Information Systems, namely understanding the role of Information Communications Technologies in users’ identity projects (Nach and Lejeune 2009; Whitley et al., 2014). Precisely, through examining the intersection between identity, social media and acculturation. We support the importance of this as three-fold; first, acculturation is a modern challenge; with rapid globalisation and increasing rates of migration, this has resulting in over 4.8 million international students (UNESCO, 2018). Second, identity is central to the acculturation process, as migrants negotiate their identity between their culture of origin and the host culture (Askegaard et al., 2005; Cleveland et al., 2016). Thirdly, social media is now ubiquitous and is accepted as a crucial medium for identity creation, management and negotiation in today’s digital world (e.g. Hu et al., 2017; Panteli and Marder, 2017).

To contribute to theory, we draw specifically from Carter and Grover’s (2015) tripartite conceptualisation of technologies as mediums, determinants and consequences of identity to examine the role(s) that social media may play in the identity projects of users, in the context of acculturating migrants. Through this, we intend three theoretical contributions. First, existing research into identity and technology largely considers the role of ICT as rather unidimensional, as either a medium, determinant or consequence. In
the case of social media this has been nearly exclusively the former, as a medium (e.g. Zhao et al., 2008). Here, we aim to explore whether the interplay between social media and identity extends beyond it as a medium, potentially also existing as determinant and consequence. Secondly, as a potential consequence of identity we examine specific identity management behaviours enacted in response to the opportunities and challenges presented by social media for acculturating migrants. Thirdly, we aim to directly extend Carter and Grover’s (2015) conceptualisation by investigating the potential for interconnectedness between the tripartite roles of ICT and identity, a possibility yet to be the focus of existing research. Thereby responding to the call for further investigations into ‘granular mechanisms that underpin the relationships between ICTs and identity’ (Diaz Andrade and Doolin’s (2016: 414).

THEORETICAL BACKGROUND

Identity

The notions of self-concept and identity are often used interchangeably (Oyserman, 2009). Self-concept is viewed as an overarching conception of who one is, was or may become (Neisser, 1988; Stets and Burke, 2005), articulated through a number of personal and social identities (Oyserman, 2001;). These identities stem from prior personal and social, cultural and personal experiences, which are negotiated and reconciled (Markus and Wurf, 1987: 301).

Personal identities (e.g. being intelligent, resilient etc.) centre on characteristics and goals that do not concern social relations or group membership. In contrast, social identities (e.g. being Chinese, a fan of a sports team etc.) focus on characteristics and goals intrinsically linked to the social, such as social roles or groups (Reid and Deaux, 1996; Swann et al., 2009; Hogg, Terry and White, 1995). Social identities range from narrower, temporally specific identities (e.g. being an international student) to those that are more temporally expansive (e.g. gender, culture), and depending on the context, may function in an integrative manner (e.g. a female Chinese international student) or separately (e.g. a woman, a Chinese person, a student, a migrant) (Oyserman, 2009).

In the present research, we focus on social identities, since the phenomenon of social media is inherently ‘social’ in nature, and on acculturation, which is widely acknowledged as involving tensions between cultural identities (Young, Natraj-Tyagi and Platt, 2015). Drawing from Oyserman (2009), Individuals are subject to a motivational pull toward identity-congruent action and identity-congruent cognitive procedures, where cognition and action are dynamically shaped by context. This involves self-controlling, self-
regulating actions and embodied stances i.e. how one presents oneself with regards to the social.

Our focus here is on the social identity of social media-using transient migrants, specifically their actions and cognition enacted to approach a desired identity or identities, or avoiding those that are undesired. Thus, individuals may behave in a certain way to be accepted into or maintain their identification within a group (in-group behaviour) or to ‘other’ those from competing groups (out-group behaviour) (Tajfel & Turner, 1986; Zourrig et al., 2015). When an individual perceives they are too distant/close from a desired/undesired social identity state, respectively, social anxiety is found to arise (Higgins, 1987), stemming from fear of a negative evaluation by others (Leary and Kowalksi, 1995).

The intensity of the effect is noted to be positively related to the prominence (or centrality) of this identity i.e. the more a person prides themselves on their intelligence, the greater the anxiety they will feel if they perceive others will evaluate them as unintelligent (Carver and Scheier, 2001). McCall and Simmons (1978) propose the degree of prominence of a certain identity is based on three individual-level criteria: the level of investment in the identity, prior successes in maintaining this identity, and the level of reward (extrinsic or intrinsic) associated with enactment. Having reviewed psychological literature on identity, we frame our research as an examination of social identity-related actions, cognitions and effects. The following section reviews current understandings of identity within Information Systems with a focus on social media.

Identity and Social Media

Though grounded in psychology, identity has long been a critical area of research within Information Systems. As mentioned, Carter and Grover’s (2015) review of identity within this domain found that existing work generally acknowledges Information Technologies as either a determinant, consequence or medium for identity-related behaviours. Social media technologies have been widely researched as a medium for identity, widely accepted as important day-to-day arenas where people create, manage and negotiate their identities (e.g. Hu et al., 2017; Birnholtz et al., 2017; Zhao, Grasmuck and Martin, 2017; Van Dijck, 2013). This is afforded through various activities, tools and practices such as joining groups, ‘liking’, chatting, posting, or creating personal pages (Cobb and Kvasny, 2012; Panteli and Marder, 2017; Schau and Gilly, 2003). Through these sites, individuals align themselves with content that is consistent with or enhances their identities, while avoiding those that may reflect badly on them (Hollenbeck & Kaikati, 2012).
Furthermore, social media also allows for verification of identities, for example through validation of comments in expert forums from unknown others (Ma and Agarwal, 2007), or feedback left by friends, family or acquaintances on sites such as Facebook (Back et al., 2010). Marder et al. (2016a) also found that identity verification can occur offline in face-to-face interaction, triggered by content viewed online. Social media undoubtedly provides opportunities, but it also presents a distinctive and novel challenge: the problem of conflicting social spheres (Binder et al, 2009) or the multiple-audience problem (Marder et al., 2012).

Generally, offline identities are presented visibly to one audience at a time for verification and therefore the identities presented will change depending on the situation. For example, the identity projected by a person will shift between home and work, with time and space allowing for what Goffman and Kihm (1975) calls ‘audience segregation’. However, on social media, time and space are collapsed, allowing for an individual’s projected identity within these sites to be displayed to a large and diverse audience 24 hours a day. From this, we see identity-related emotion and behaviour stemming from this novel identity environment. For instance Facebook users felt anxious in sharing and affiliating with certain content in the presence of multiple audiences, and would enact identity-motivated behaviour to protect their identities i.e. users choosing not to visibly interact with or to ‘like’ a page/group (Marder et al., 2016b; 2018). The crux of the issue is that different subsets of audiences (e.g. family, colleagues, school friends, employers) who may have different, and even conflicting views and expectations can simultaneously scrutinise identity projections. The role social media plays in the identity projects of its users are no doubt complex, however, arguably more so for those in the acculturation process.

Identity and Acculturation

Turning to the study’s context, identity is often an important issue for immigrant people (e.g., Bhatia, 2002; Phinney, 2003). Acculturation involves adaptation along two dimensions: (a) adoption of ideals, values, and behaviours of the receiving culture, and (b) retention of ideals, values, and beliefs from the migrant’s culture of origin (Phinney et al., 2001). Thus, migrants have to navigate between the need for cultural maintenance with their culture of origin, and participation in the society of settlement (e.g. Kim, 2001). Acculturating in the host culture occurs through interaction with a range of acculturation agents who are sources of information and/or role models for migrants (Penaloza, 1989); these include other migrating family members, peers, mass media, schools, companies and institutions (Luedicke, 2011).
Acculturation “affects many aspects of the self, requiring significant redefinition and reconstruction of both personal and social identities” (Padilla and Perez, 2003:50). Research has identified several acculturation positions relating to the acculturating identity (e.g. Penaloza, 1994; Luedicke, 2011; Askegaard et al., 2005). ‘Assimilation’ is a convergence towards the host culture, in terms of values, culture and a way of life, whilst ‘maintenance’ involves preserving home cultural values. ‘Resistance’ withstands elements of the host culture and ‘integration’ mixes both cultures to create a fusion. ‘Separation’ entails distancing oneself from the home culture including previous cultural values and learning. The ‘pendulum’ outcome leaves individuals toing and froing between home and host cultures (Askegaard et al., 2005). Research supports balancing and integrating aspects of home and host cultures has the greatest positive impact on migrants’ psychological wellbeing because they can behave in accordance with the norms of home and host countries and reconcile any dissonance (Kim, 2007). However, the fluidity of personal and social identities could lead to both congruence and conflict in identification.

Information System scholars in recent years have examined the adoption of technology by migrants. Labourer migrants used mobile phones and Skype to keep in touch with family from their home culture and organise work in their host culture (Aricat, 2015; Vancea and Olivera, 2013). Migrants also used the Internet to learn about their host nation, accelerating their integration (Alam and Imran, 2015). Diaz Andrade and Doolin (2016) examine the digital divide, exploring the social inclusion of resettled refugees through technology use, and the agency it affords them in participating in society and controlling their circumstances. They conclude that ICT enables valuable capabilities such as participating in society, communicating, understanding the new society, being socially connected and expressing a cultural identity. Similarly, and more specific to our context, there has been research on acculturation of international students on the informational value of social networking sites for international students (Sin and Kim, 2014). Though valuable, existing work on ICT and acculturation has neglected to provide a focused exploration of identity and possible contestation within this area.

It is this gap that we intend to contribute knowledge, responding to Carter and Grover’s (2015) call for research into ICT and identity in contemporary contexts, and a focus on ICT providing social resources that could help the creation and management of IT identities. Thus, the present study will explore the potential dynamic role of social media in the identity projects of acculturating transient migrants, with the intention of the three contributions outlined in the introduction. Together extending knowledge of ICT and identity, specifically with regards to Carter and Grover’s (2015) tripartite conceptualisation.

METHODOLOGY
This study explores connections between identity and social media use among transient migrants in the UK. Participants came from various countries and had been in the UK between one and eight years. Most of the participants came from developing countries, which may shape their experiences of the acculturation process to the host culture. Thus, for life-stage and location reasons, identity issues, including “possible selves” (Markus and Nurius, 1986) are likely to be particularly salient for transient migrants. Furthermore, their identities are likely to be played out on social media given their greater tendency than older individuals to be social networkers (Pew Research Center, 2016). For these reasons, international students’ accounts of their experiences may offer rich insights into the role of social media on the identities of acculturating migrants making the transition to adulthood.

The study used purposive sampling; we recruited via email invitations and social media inviting international students who were social media users. New participants were sought until it was felt that theoretical saturation had been reached (Glaser and Strauss, 2009), producing a final sample of 17 female and 10 male students aged 18-25 (Table 1).

Participants regularly used social media, checking their accounts at least three times each day and typically posting a few times each week. Facebook was the most prominent social media platform used by participants; all participants used Facebook daily, with Instagram being the next most popular platform used on a daily basis. Drawing on in-depth interviews, this study responds to the call for qualitative exploration in this area (Kreps and Kimppa, 2015). In-depth semi-structured interviews were conducted both face-to-face and through online Skype video-calling. Voice over Internet Protocol (VoIP) makes it possible to conduct face-to-face interviews online (Couper, 2011) and is often seen as equivalent in quality (Redlich and Higginbottom 2014). This enabled participants located around the UK to be included using a mode of communication that was part of their everyday social lives as international students.

Interviews ranged from 45-90 minutes, exploring these transient migrants’ experiences of moving to the UK. Participants were asked how they and others saw themselves and about their social relationships. Another key area for discussion concerned the social media platforms they used, the interactions and content they consumed, created, and shared. In both online and face-to-face interviews, participants were asked to access their social media accounts to ‘show and tell’ (Akama et al., 2007) the researcher, offering examples of their social media activity in relation to home and host cultures. This helped participants recall and reflect on complex interactions, complementing and sometimes challenging their self-reports.

Interviews were audio-recorded and transcribed, resulting in 540 pages of single-spaced text. Inductive analysis and review took place throughout data generation; axial coding
was used to identify relationships between codes (Glaser & Strauss, 2009), with preliminary analysis informing later interviews. Intra-textual analysis was undertaken first, examining each transcript as a whole, outlining a temporal sequence of each participant’s story of acculturation and social media use. Inter-textual analysis was then undertaken, seeking common storylines across the data, for instance the social media use that aids maintenance of the home culture, or hinders connection to the host culture. These common storylines became key themes, illustrated by data. This coding process was complemented by iterative reviews and reading of transcripts by all three authors whilst discussing data excerpts in relation to particular themes.

Table 1: Demographics of Interview Participants

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Sex</th>
<th>Culture of Origin</th>
<th>Time in the UK (years)</th>
<th>Main Social Media Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nilesh</td>
<td>M</td>
<td>Indian</td>
<td>2</td>
<td>Facebook</td>
</tr>
<tr>
<td>Duygu</td>
<td>F</td>
<td>Turkish</td>
<td>2</td>
<td>Facebook</td>
</tr>
<tr>
<td>Jochi</td>
<td>M</td>
<td>Mongolian</td>
<td>4</td>
<td>Facebook, Instagram</td>
</tr>
<tr>
<td>Alice</td>
<td>F</td>
<td>Greek</td>
<td>6</td>
<td>Facebook, YouTube, Instagram</td>
</tr>
<tr>
<td>Hamsa</td>
<td>M</td>
<td>Libyan</td>
<td>5</td>
<td>Facebook</td>
</tr>
<tr>
<td>Rawan</td>
<td>F</td>
<td>Kuwaiti</td>
<td>4</td>
<td>Facebook,</td>
</tr>
<tr>
<td>Farah</td>
<td>F</td>
<td>Kuwaiti</td>
<td>2</td>
<td>Facebook, Instagram</td>
</tr>
<tr>
<td>Mei</td>
<td>F</td>
<td>Chinese</td>
<td>8</td>
<td>Facebook, WeChat, Instagram, Weibo</td>
</tr>
<tr>
<td>Samorn</td>
<td>F</td>
<td>Thai</td>
<td>2</td>
<td>Facebook</td>
</tr>
<tr>
<td>Gosia</td>
<td>F</td>
<td>Polish</td>
<td>3</td>
<td>Facebook, Instagram</td>
</tr>
<tr>
<td>Arezoo</td>
<td>F</td>
<td>Iranian</td>
<td>2</td>
<td>Facebook, Instagram</td>
</tr>
<tr>
<td>Yunis</td>
<td>M</td>
<td>Libyan</td>
<td>5</td>
<td>Facebook, Instagram</td>
</tr>
<tr>
<td>Alexandra</td>
<td>F</td>
<td>Bulgarian</td>
<td>3</td>
<td>Facebook, Instagram</td>
</tr>
<tr>
<td>Shahin</td>
<td>M</td>
<td>Bangladeshi</td>
<td>2</td>
<td>Facebook</td>
</tr>
<tr>
<td>Kathai</td>
<td>F</td>
<td>Thai</td>
<td>6</td>
<td>Facebook, Instagram</td>
</tr>
<tr>
<td>Ayesha</td>
<td>F</td>
<td>Pakistani</td>
<td>2</td>
<td>Facebook</td>
</tr>
<tr>
<td>Shan</td>
<td>F</td>
<td>Malaysian</td>
<td>2</td>
<td>Facebook</td>
</tr>
</tbody>
</table>
FINDINGS

First, we illustrate how social media as a crucial Information Technology serves as a medium, enabling transient migrants to manage and express their identities during the acculturation process. Social media offers the opportunity for identity outcomes aligned with maintenance of the home culture, assimilation of the host culture and also integration of the two cultures. Second, we show how social media is a determinant of identity issues, in that participants’ identities become contested as they are subject to simultaneous surveillance by diverse acculturation agents. Third, we then show how social media use is a consequence of these identity negotiations and challenges, identifying four strategies for identity management that were evidenced by the participants.

Social Media Use as a Medium - Identity Negotiation for Assimilation

Finding their place in an unfamiliar culture and using social media as a way to connect with both the home and host culture was a key theme emerging from participants’ accounts. This was an ongoing process, with different contexts calling for reflection on identity and appropriate choices. Participants used social media to connect with others including like-minded individuals, using functionalities such as ‘liking’ posts, groups, sharing photos, joining communities as well as creating or sharing posts that aligned with the host culture.
Shahin, from Bangladesh joined the Liverpool Football Club Facebook group soon after arriving in the UK:

“I wanted to get connected with others and [have] something to join with my friends I’ve made here [in the UK]. I first came to like Liverpool FC when I read about their history and I was just watching their matches. Their logo chant is like ‘you’ll never walk alone’; that is like the five close friends [who] are very important to me...Manchester United talk about being the glorious one and being very big-headed and arrogant, so I dislike that... my friends back home don’t really talk about football - they are not greatly interested.”

Drawn to the community on Facebook, Shahin ‘liked’, joined, and participated in the online community discussions, which gave him a sense of belonging. He describes the Liverpool community ethos as aligned with his own values and his Facebook activity as developing relationships with new friends in the UK. Participation in this online community shows Shahin thinking, feeling and acting as a member of a collective (Padilla and Perez, 2003). This social media activity was congruent with his social identity, and based on this group membership it forms his individual self-concept (Tajfel, 1974) whilst acculturating. More broadly, as a Liverpool fan, he demonstrates the cultural competence to participate in the ‘othering’ of Manchester United fans, thereby claiming his place as a member of the Liverpool FC ‘in-group’ (Tajfel & Turner, 1986).

Similarly, Shaya, from Pakistan, used features on Facebook to align with her new friends in the UK by ‘liking’ various Facebook groups:

“...It’s something in common with them...we like the same brands and groups and it gives us something to talk about. It’s more of [a] reinforcement than anything. With things like Vodka Revolution group, well initially I didn’t enjoy drinking because I felt it was really wrong to drink. I started drinking really late. I’m Hindu. Well, I’m allowed to drink, it’s not like I hide it from my mum and dad, but earlier when I was drinking with my friends in the UK, I felt really guilty. But still when it came to being with my friends, they like their drinks, so I say I also enjoy spending time like that and join the group with them.”

Confirming similar preferences to her friends by showing affinity to certain brands and groups reinforced Shaya’s sense of belonging within her new cultural environment. In seeking to create acculturative cues, transient migrants might find themselves expressing greater affinity with certain brands than host culture agents, thus presenting an identity that may be seen as hyper-assimilation. Shaya also highlights the personal costs and conflicts associated with assimilating in the host culture. Initially she sees herself as inauthentic, pretending to enjoy drinking alcohol with her new friends whilst believing
that drinking alcohol was “really wrong” and incompatible with her identity as an observant Hindu and dutiful daughter. On reflection, however, she realises that drinking and expressing affinity with an alcoholic brand online does not undermine her religious or familial status, allowing her to navigate this tension, and to reconfigure and repair her conflicted identity. In both cases, Shahin and Shaya’s identification and participation with the in-group which helps them identify with the friends in the host culture is a part of the assimilative outcome.

Gosia, from Poland, also uses social media to locate like-minded individuals in the host culture like the participants above. In her case, however, Gosia uses Facebook to find other transient migrants and communities, which then enables them to interact offline:

“My flatmates would make jokes and I would not get it. They would say ‘do they not make jokes where you’re from?’ I went out drinking with them but it didn’t work out because they would starve themselves to get really drunk and say ‘eating is cheating’, and then they would take photos of themselves for Facebook. I felt uncomfortable with that and it’s not my way of having fun. Then I used Facebook to join societies and groups, for example the debating society, public speaking society and the UN group that would have a lot of international people. This was where I found my proper friends. We would use Facebook to arrange formal and informal meet ups and talk about the agenda for the next meeting, and it’s good because they would be open to doing different things.”

Despite her attempts to fit in with the UK culture and assimilate, Gosia finds herself rejected by her flatmates, and also senses great discrepancy between herself and her flatmates as she avoids their alcohol-related values and online behaviour that seemed part of the host culture. Thus, Facebook becomes a crucial platform for forming other bridges to enjoy her time in the host culture (Gomes et al., 2014). It helps her find and engage with others congruent with her sense of self, especially other international students in the host culture who affirm her identity rather than undermining her way of having fun.

This resonates with studies that show IT is used to connect like-minded individuals based on an already existing social identity (e.g. Kim, 2007; Tsai and Bagozzi 2014). It also supports Hotta and Ting-Toomey (2013) who found acculturating international students find themselves forming social groups with other international students in early phases of acculturation, as they are undergoing similar experiences. Thus, the acculturation process does not always have to involve assimilation with host culture agents, but can occur through learning about the host culture and adopting a wider global cultural outlook, alongside other transient migrants.
Unsurprisingly, participants used social media platforms intensively when they first arrived in the UK, as they sought to maintain contact with friends and family from home, pass the time and cope with feelings of isolation, homesickness and loneliness. For Duygu, from Turkey, during those first few lonely months away from home, “Facebook was central to my life”. Similarly, Lilly from China blogged and posted extensively on social media when she came to the UK and felt “stuck in the room” with “no-one to talk to”.

Over time, participants identified more with friends in their new cultural setting, relying less on social media contact with those back home. Even if the intensity of contact with the home culture generally diminishes over time, it has ongoing significance for their identity during acculturation. Nilesh needed social media to communicate with his family frequently and expressed that he was “really behind with friends and in India it’s a big deal to not wish people on their birthday”. This suggests considerable reliance on social media to keep the family unit and social circle operating as it did before (Panteli and Marder, 2017), reducing the barriers of time and space between them. Ayesha, from Pakistan, uses social media to affiliate with brands and groups to express ongoing connections and identify with her home culture:

“...I posted about KFC and liked their Facebook page because the KFC in the UK is not halal, so I miss it like crazy! It’s actually according to our taste in Pakistan. The chicken is customised, and it’s more spicy and crispy - the Pakistani taste. I posted it after I missed it in the UK and I was telling my dad that I want KFC in the airport when I come back! I just miss it!”

Ayesha posts and shares content, conscious that it appeals to her audience back home; in other words, such posts portray her identity aligning with her home culture, by expressing nostalgia for the culturally-customised food brands available at home. This strategy serves as an acculturation maintenance strategy as users seem keen to show home culture agents that, despite the physical distance between them, users are still thinking about and making efforts to stay connected to their home culture. This resonates with Hollenbeck and Kaikati’s (2012) finding that Facebook users strategically post or share content that is consistent with certain aspects of their self.

Using social media to align their identities with an acculturation outcome did not always require interpersonal interaction. For example, Alice, from Greece, watches make-up tutorials on Facebook, Instagram and YouTube presented by Greek girls:
“They are addictive. Now, they’re very sophisticated, going around the city to show the best places to buy clothes, and from that, I get to see the local culture and how things have changed - it’s fascinating really.”

Alice recognises and appreciates that advancements in technology enable her to gain and keep up-to-date with insider knowledge relating to her home culture. This user-generated content serves as a window on current developments in her culture, allowing her to align her own identity with her home and stay connected. This adds to the findings of Alam and Imran (2015), illustrating that ICT eases the acculturation process not just by allowing people to gather information from their host culture, but also from their home culture. Such use of social media enables migrants to return home with a stock of knowledge that reduces the risk of reverse culture shock (e.g. Furnham, 1984; Gaw, 2000).

Social Media Use as a Medium - Identity for Integration

Expressing an identity that pertains to integrate both cultures was seen as imperative to the participants, and they expressed how social media was used to enable this. Farah is from Kuwait and uses social media in order to integrate her identity to align with both friendship groups in the host culture:

“I have a Somalian and a Moroccan friend, which is my Arab group in the UK...I didn’t select them just because they’re Arabic but it’s just that we have a PhD group, and we have divisions in the group. The others would arrange to go to the pub for drinks...they know we don’t drink but would say let’s go out together. So we will arrange to go to restaurants and they can join us but we then would not go to the pub after, so we will use Facebook to arrange this with everyone.”

Farah’s account shows the need for migrants to continuously reorganise the delicate structure of their multiple social identities (Padilla & Perez, 2003) as they acculturate. Farah balances her desired identity as a young Muslim woman aligning with her home culture of avoiding alcohol alongside her desire to assimilate with members of the host culture who are part of the heavy-drinking culture prevalent in the UK. Her use of social networking sites, particularly the messaging and group chat functions within the Facebook PhD group serves as a medium to negotiate an integrative identity, since it prevents her from being marginalised whilst reconciling differences between the religious and cultural values of her home and host cultures. Together, the PhD group uses Facebook to manage the logistics of compromising, allowing everyone to select the particular elements of a night out that fit their values and lifestyles.
However, a further level of conscious meta-identity management was evident here: in some cases participants embraced opportunities to show an identity expressing integration, reflect on their shifting selves online, and communicating this to both home and host cultures. Kathai, from Thailand, notes:

“I like to share my experiences to my friends here in the UK and back home, put up photos, ‘check-in’ to places where I’ve been, upload food pictures, showing how my tastes have changed. I have a photo album called ‘fusion food’ of how I mix English and Asian style food together.”

Kathai’s rationale for uploading photos and ‘checking-in’ to places in her new surroundings demonstrates her desires to present a self that is exploring and changing in the host culture as reflected in her tastes and her ability to fuse elements of these distinctive cuisines. Participants show how they are able to strike a balance with their identity portraying assimilation as well as maintenance, integrating both cultures in a way that they see as suitable for themselves and their multiple audiences. In the study, we did not find instances of marginalisation, whereby they feel alienated by both the home and host culture. This is possibly due to the ability to navigate their identities to be congruent with the respective cultures and the aptness to use social media in ways to manage audiences.

Social Media Use as a Determinant of Identity Negotiations and Challenges during Acculturation

At times, presenting an identity position of integration was not as seamless. Through using Social Media, simultaneous surveillance from both host and home countries enables scrutiny of the participant’s evolving identity, which determines the participant’s identity negotiation and challenges.

Farhad, a Muslim from Iran, describes the after-effects of joking around with his English male housemate and declaring that they were together in a relationship on their Facebook relationship status:

“Suddenly my friends and family back home were calling me, messaging me whilst shocked, and asking if it was true. I didn’t think I would have this response; I was just joking around with friends here.”

Social media plays a large part in this, as by using the Facebook relationship status feature, it easily allows Farhad to express himself online and show his identity to be open to assimilation and liberal, whilst bonding with his housemate through the joke.
However, this met with negative feedback from the audience in his home culture where conservative values dominate and homosexuality is considered a sin. The quote shows that attempts to fit in and find ways to assimilate to the host culture can be met with identity dissonance, fraught with misunderstandings and conflict with various audiences online.

Similar contestation is shown when Neema, from Ghana, shares a narrative that demonstrates the struggle of many transient migrants. Neema struggles to position herself between highly pious friends from her home in Ghana and secular friends in the UK. Neema finds herself facing a balancing act, and describes it as a constant battle, a “conflict between two sides”. She attempts to appease the audience but feels “you are letting others prevent certain things and influence what you put there [on Facebook] so you aren’t fully free to present yourself in the way you want to present yourself.”

Due to participants’ identities being under simultaneous surveillance by multiple audiences, they were not only conscious of simultaneous scrutiny of their identities, but also resorted to various strategies to address the consequences of having multiple audiences. These strategies are outlined in the next section.

**Social Media Use as a Consequence of Identity Negotiations and Challenges during Acculturation**

The identity negotiations and challenges generated during acculturation necessitate various identity management strategies in the participants’ social media use. Thus social media use is seen as a consequence of the challenges.

We illustrate how transient migrants use four strategies on social media in order to manage and protect themselves from negative judgements from multiple and diverse audiences.

**Boundary Management**

Participants use the strategy of managing certain boundaries as they had contradictory feelings about surveillance from certain agents in the home culture. As Shan, from Malaysia, explains:

“I want to show people here, but especially old friends, that I’m fun. I go to parties so I put up some travel photos and accept tags on drunken party photos. But I always feel
as if I need to block my teachers back home in case they think I’m a slacker and living a
typical student life.”

Surveillance on social media was particularly problematic given the multiple audiences
that exist (Marder et al., 2012); this in turn inspired various damage limitation strategies
to shield evolving identities from the crossfire between home and host culture
expectations. Shan uses the strategy of boundary management in order to limit access to
the travel and party photos and keep her academic identity prominent for her teachers
back home.

For Farhad, the need to create boundaries was much more evident, having experienced a
strong reaction from the audience back home regarding a joke about his sexuality.
Recognising the taboo and stigma around this topic for a Muslim identity in the home
culture, he subsequently manages his online identity:

“After that, I decided to block some tagged photos and often upload posts related to
my hometown and music from my home country.”

He does so by blocking certain photos that could possibly appear to the audience at
home as unwelcome hyper-assimilation, and also uploading content showing a
maintenance identity, in order to reassure and conform to the expectations of the
audience at home. Marder et al. (2017) found that sharing sexual-branded content on
Facebook was constrained by the diversity of the audience (friends, partners, parents
employers, etc.). In the case of acculturating migrants, pronounced cultural diversity in
their networks may well serve as a significant constraint.

Access Management

Participants were found to manage access to separate the audiences and the available
content. Mei states how she doesn’t want to add her Chinese friends on Facebook as she
desired to keep her identity separate:

“I don’t want to add them [Chinese friends in the UK] because I don’t want them to
see the other side of me on Facebook because I might post different things on the Chinese
social platform […] On Facebook, I show myself going out, my makeup purchases, just
things I spend money on, but on the Chinese site, I show my academic achievements. I am
also moderate and I am more indirect when I say stuff.”

Mei’s actions on different social media sites illustrate use of access management
strategies to protect her different identities in relation to different audiences (Lampinen
et al., 2009). Mei distinguishes between herself as simply Chinese, and some friends in the UK whom she labels “Chinese-Chinese” - the Chinese students maintaining more of their home culture attitudes and values. Conscious of the shifts in her acculturating identity since being in the UK, she expresses concern about accepting friend requests from “Chinese-Chinese” friends who have started using Facebook and worries about how her “multiple personalities” is perceived by those with more fixed mindsets. She regulates through her choice of social media platform for particular posts, using Facebook, WeChat and Weibo to portray different selves to her audiences. For instance, she displays an identity aligning with an assimilated identity as outgoing and independent on Facebook (which her Chinese friends cannot access). In contrast, she presents an identity aligned with a maintenance outcome as “moderate” and avoids “controversial photos” when posting on Weibo and WeChat. For her Chinese audience, she shares photos relating to academic achievements, which are highly valued within collective Chinese culture (Francis and Archer, 2005), demonstrating a maintenance strategy and an identity that remains congruent with her Chinese social circle.

As individuals move through different life phases, managing different accounts may become too cumbersome, and so the option to delete accounts comes into play. Samir, from Egypt, worries about how potential employers as well as family members might respond to his time in the UK as displayed on Facebook, complete with photos of drinking and smoking, as this would conflict with his desired professional identity when he returns home (Van Dijck, 2013):

“Things that I am careful about right now is not many but now come September, it will increase dramatically to the point where I even might sacrifice my Facebook.”

The prospect of returning home and becoming part of a professional field creates a level of anxiety for Samir, leading to plans for regulation and questions about the value of different social media platforms and personas. The use of multiple platforms and accounts is a solution; DiMicco and Millen (2007) found the use of multiple accounts reported by those wishing to separate their corporate and personal identities. However, if managing different accounts becomes too inconvenient and unmanageable, they may follow Samir’s lead by “sacrificing” particular social media platforms altogether.

**Online Content Management**

Participants show ways in which they manage the content they post online as a consequence to the contestation of multiple audiences. Participants articulate experiences of a ‘torn self’ (Jafari & Goulding, 2011) such that they are caught between two cultures. As well as using strategies of access management (as seen above) Mei also
manages her online posts through language use, writing some posts in Chinese and others in English for her varied audiences. Since arriving in the UK, Sheng, from China, became “more outspoken, more opinionated, especially on politically charged topics”. When posting online, he worries about how he will come across to people back home, saying, “they may think I am too much, or too opinionated, like I am too good for them and showing off”. He is aware of his identity changes from acculturating in the UK, but is conscious that the audience at home would not appreciate such assimilative changes, thus he consequently tones down the posts.

Farah, from Kuwait, shares links and photos with her new PhD Facebook group in the host culture, “because we are into similar things...life plans, knowledge and education, we have a broad mind...we are not limited to talking about buying things”. She ‘others’ her social circle at home as they are “too materialistic, we just talk about brands, about money, what they want, what they have...It’s like there is no brain but just a box in their head...”. Farah attempts to distance herself from Kuwaiti friends since posting updates about herself and having superficial contact saves her from having to “hang around with them on a monthly or weekly basis” when she goes home, thus using it as a compensatory measure. Thus, she employs a separation strategy, away from her home culture audience and their materialistic values, a value she sees as woven into the fabric of Kuwaiti culture. Thus, here Farah shows she manages the content online for identities relating to both assimilation and separation outcomes showing how social media and the ability to post different content can help manage different relationships, and a sense of identity at different times during acculturation.

Neema, from Ghana, describes how her diverse audiences in the home and host culture lead to some paradoxical strategies:

“Most of the time I am kind of torn between these two because I am religious but I am not highly religious...Every time I get a notification saying someone has tagged a photo of me, my heart starts going boom-boom...I un-tag loads of pictures of me drinking or me looking drunk. But one picture that I haven’t untagged is my profile picture with me holding a glass of wine...I have had many people commenting on it sending me emails asking me about that one; I usually say ‘Oh, it was Christmas and it was a special occasion and it was just a glass of wine.’”

She defers to her home culture by untagging some alcohol-related photos, managing the online content to self-regulate her online identity. At the same time, featuring a glass of wine in her profile picture seems a strong, even provocative assertion of herself as someone responsible for her own moral identity and a display of an integration acculturation strategy. As evident in the data, alcohol consumption plays a large part in
these negotiations; not only is it a major part of UK student culture, but is more broadly associated with diverse cultural and moral values.

**Offline Content Management**

Multiple simultaneous audiences require users to not only manage their online content, but also to regulate their offline pre-posting behaviour - in essence, to practice self-censorship (Das and Kramer, 2013). Samir highlights how social media posts such as “pictures with lots of girls” had been interpreted as having assimilated too much in the UK, a departure from his Muslim faith, and essentially expressing an identity separated from the home culture:

“So because of that, I would be very careful about that. The things I would be careful about are politics, alcohol, nudity, homosexual images, things that would upset my family and friends.”

Participants often express concern about portraying themselves as less religiously observant than required by those at home. Such accounts express worries that those from home may not accept how participants have assimilated to the UK or how they are more willing to express an identity in ways that do not align with the home culture. This leads to the participant managing their pre-posting behaviour and essentially engaging in self-censoring.

Such pre-posting behaviour indicates concerns about not appearing too assimilated, leading to online strategies communicating deference and appeasement to family members and other agents at home.

As international students, participants often relied financially on their parents and thus understood the power that could be exerted if they did not live up to expectations. Rawan, from Kuwait, refers to a Kuwaiti friend whose father checks her social media profile to ensure that she was still wearing the hijab in the UK, and had threatened to discontinue financing her studies if there was evidence of unveiling. The friend asked Rawan to disguise her face in photos before Rawan posts any of them online as she is conscious that her unveiling whilst abroad has consequences for her studies and for her family’s reputation back home. At times even more could be at stake; Yunis, from Libya, was wary about expressing his true stance on Libyan politics on social media and deliberates carefully before posting content online:

“I don’t want to share anything that is misunderstood and then my family to some extent may pay the price for it. We are still having a civil war; many people don’t accept freedom of speech.”
These examples indicate how participants’ behaviour is regulated in pre-posting periods, and requires managing offline self-censorship rather than other strategies such as managing and controlling the audience’s access to such posts.

This online multiple audience problem (Marder et al., 2012) is found to cause particular, culturally-inflected social anxiety for transient migrants, possibly due to disparate cultural norms as well as the general plan to return home, where they would suffer the consequences of the identity deviating too far from the home culture. Ultimately the tension of presenting an identity congruent to different audiences leads to individuals feeling constrained in expressing their identities. The contestation creates a sense where the agents are not deemed helpful for acculturating users (Luedicke, 2011). This makes OMAP and the subsequent self-regulating strategies so prominent and consequential in this context.

DISCUSSION AND CONCLUSION

ICT has been known to play a crucial role in users’ identity projects. However, to our knowledge no research until now focused on the role of social media in the identity negotiations of acculturating users. In the context of transient migrants, we address this gap. Specifically, we provide three contributions to knowledge on the study of identity within Information Systems. First, usage or cognition of social media is all a medium, determinant and consequence of identity.

Social Media Use as a Medium for Identity Integration

Our findings show that social media plays a critical role as a medium for identity maintenance during the acculturation process. Specifically, we find transient migrants engage with a plethora of tools afforded by social media to assist in conspicuous identity-behaviours, supporting the findings of prior research (Zhao, Grasmuck and Martin, 2008; Schau and Gilly, 2003). Migrants would share, ‘like’ and affiliate with content to support their new identity as a member of their host culture as well as to reaffirm their identity associated with their home culture. The role of ICT in the push-and-pull of identity within transition noted here is further supported by Diaz Andrade and Doolin (2016) who found ICT afforded refugees the ability to maintain both old and new identities. These findings highlight that social media provides identity-related opportunities to acculturating migrants, particularly transient migrants such as students, as their identities are in flux and evolving.
Social Media as a Determinant of Identity Negotiation and Challenges

Social media was found also to determine identity issues for our participants. Due to the geographically-unbounded nature of social media, transient migrant users suffer from ‘context collapse’ (Marwick and Boyd, 2011); their identities portrayed online are now subject to simultaneous surveillance and verification by people from both home and host countries. We find that acculturating identities are not only negotiated between ‘locals and migrants’ as before (Luedicke 2011), as family, friends and cultural values from home also shape the identities. This reduces the transient migrant’s agency to pick and choose between elements of home and host cultures. Rather, it has become increasingly entangled in the web of social approvers, relationships and responsibilities causing contestation in identity negotiation. In essence, what our data shows is that the inherent capabilities of the technology add a layer of complication to a migrant’s identity project. Contestation derived from the use of social media was very evident with these participants, and can be seen to more prevalent due to the large culture distance between the home and host culture. Social media may not be a salient determinant for identity management strategies

Participants worried about presenting identities that would fall below the expectations of others. This resonates with prior research that associated social anxiety with social identity discrepancies (Higgins, 1987; Leary and Kowalski, 1995). This anxiety is linked to the potential for repercussions, such as those identified in this study: damaging relationships, losing financial support, harming their own or their family’s reputation, or even compromising their family’s safety. Though to some extent migrants have always faced a multiple-audience problem, since within their host culture they are likely to encounter acquaintances from their home culture. However, presenting an identity online, this problem is amplified – as others including their parents can see. Stemming from this determinant, social media was found to also act as a consequence of identity-related behaviours.

Social Media as a Consequence of Identity Negotiations and Challenges

Our data provided a number of ways that social media usage was a consequence of identity-related behaviour stemming from migrants’ identity needs. Particularly apparent in the data was the use of social media as a consequence of identity issues arising from the presence of multiple audiences. This leads us to our second contribution: the identification of four strategies for identity management, enacted as a consequence of the need to protect transient migrants’ identities from simultaneous surveillance and negative verification of online audiences:
(1) **Boundary management** involves managing privacy settings to create certain boundaries. This allows particular content (e.g. tagged photos, uploaded statuses) to be seen by some audiences where identity-meaning would be congruent, but not seen by others where a negative verification may occur.

(2) **Access management** takes the form of deleting social media accounts, not granting friend requests or having multiple accounts to segregate audiences - in essence the denial of profile access to certain potential audiences.

(3) **Online content management** involves deleting and untagging content (Hollenbeck and Kaitia, 2010), liking or avoiding liking content/brands/groups and using different languages on the platform.

(4) **Offline content management** involves vetting offline content prior to posting the content online

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**An Interrelated Model of Social Media and Identity**

Our third contribution extends Carter and Grover’s (2015) tripartite conceptualisation of IT roles in relation to identity. Though these authors discuss the potential for interrelated relationships, little evidence is provided. Our findings offer context-based support for the interrelated nature of these three role types (medium, determinant, consequence). As illustrated in Figure 1 (below), our data show that use of social media as a medium for identity behaviours further determines identity, which then has consequences in further social media usage.
In other words, participants used social media to construct identities (medium). However, the technological environment created by social media (i.e. the presence of multiple audiences) generates further identity complications (determinant). The consequence of this identity struggle was further social media use, specifically enacting the identity management strategies discussed (consequence). Thus, social media plays multiple, inter-related roles in identity. We therefore suggest that in order to answer Carter and Grover’s (2015) call for enhanced understanding of what it means to be human in an increasing digital world, ICT’s relationship with identity should be examined not just in terms of ‘what is the role’ but also ‘what is the relationship’ between these roles. Through this, scholars will gain a more dynamic perspective on how technology adoption can amplify further adoption.

Drawing from the contributions above we further propose a model for transient migrants’ identity negotiations on social media. The pendulum in Figure 2 (below) depicts the various positions of online identity being congruent to the home culture, host culture and also both cultures. Due to the need to navigate diverse, often contradictory cultural expectations of multiple audiences and to mitigate acculturative stress, transient migrants can engage in four identity management strategies (discussed above). These strategies are enacted to steady the identity pendulum involving culture switching.
between positions of assimilation and maintenance. The strategies enable transient migrants to negotiate the position of integration, which is known for being the position that maximises well-being for migrants (Kim, 2007).

**Figure 2: Transient Migrants’ Identity Negotiation Through the Use of Social media**

In conclusion, our study has highlighted the multifaceted role that social media plays in the identity negotiations of transient migrants and it offers three theoretical contributions. First, we show that social media serves as a medium, determinant and consequence of identity. Second, we provide four strategies for identity management: boundary management, access management, online content management, and offline content management. Third, we provide contextualised support for a reciprocal relationship between the different identity-related roles played by social media, with the use of social media driving identity-related behaviours, which then in turn drive further use of social media.

**IMPLICATIONS**

Several implications for practitioners arise from this study. The findings highlight the essential role social media plays in identity negotiation of its users. Managers of such technologies are quick to acknowledge the opportunities their tools provide for identity maintenance and increased well-being of users, though are more reluctant to concede the challenges that threaten positive identity activities – such as the multiple audience
problem, an issue of social privacy (Joinson et al., 2011). This issue has become more pressing with recent announcements by Facebook that their algorithm will favour social over commercial content more than before (Wong, 2018). Managers should consider the dynamic role of social media in the identity projects of users, not just as a medium, but also as a determinant and a consequence. By taking a step back, and considering holistically how their tools interplay with user identity and privacy, they can help design tools to mitigate the negative effects of social privacy invasions, which could increase usage of their technologies.

Our findings suggest that designers may aid identity formation through geographic and socio-metric automation. For example, prompted by data showing a person is studying abroad, designers could deliver recommended groups and pages that provide important information and opportunities for identity formation direct to the user’s content feeds. In addition, designers must further reconsider their attempts to improve social privacy. Though as found in the study, sites provide a number of ever-evolving privacy tools to manage the visibility of content, sites should do more to prompt users to engage with these features. We suggest that prompts could be sent both periodically and when data submitted by the user suggests points of transition with identity implications, for example, moving abroad or transitioning from university to the workplace. These prompts should be phrased in ways that are less technology-led (here are these new functions) and more user-focused (these are the issues you may face and here are how these functions can help) than the typical prompts currently used.

For social media users, we highlight opportunities, challenges and strategies for identity management. Central to this is the need to understand social privacy issues that social media membership brings and how best to address these, especially in circumstances like migration where additional social spheres are likely to become network connections.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

As shown, a wide range of factors shape migrant identities and acculturation experiences. Our findings may be limited to migrants who are young adults, with high levels of education and are therefore experienced social media users conscious of the need for identity management through such platforms. We invite future research to attend to other forms of migration and migrants from different socioeconomic backgrounds where identity may not be viewed as so intrinsically associated with social media.

Our findings surrounding social media use as a determinant may be limited to migrants where a large cultural distance exists between their home culture and host
culture, leading to a larger extent of contestation and negotiation. Future studies could also explore social media, identity and migration in cases where a smaller cultural distance exists between the host and home countries.

We acknowledge that our insights into the interrelated uses of social media are context-specific; future studies could explore connected relationships in other technologies. We suggest that such studies are first carried out as qualitative enquiries, followed by experimental designs to test causation. Furthermore, our model of reciprocity predicts that the consequences of identity complications compel users to return to technology in order to reconcile the issue (e.g. enable privacy tools), or at least the site is cognitively salient for future identity-related behaviours (e.g. choosing photos carefully to go online), thus presenting a cycle of user-ship and/or cognition. However, once identity has been damaged and attributed to social media, users may cease to use this site, thereby breaking this cycle. Subsequent studies could further understand the breaking point where identity-related threats inhibit in-group membership. Methodologically, this study relied partly on retrospective accounts, which may be subject to the vagaries of memory. Although recall of acculturation experiences has been found to be strong (Penaloza, 1994), future studies could undertake longitudinal research or combine interviews with social media diaries. Overall, it seems that transient migrant’s identity on social media is inviting territory for researchers to explore further.
REFERENCES


UNESCO (2018), Facts and Figure, Mobility in Education, retrieved 12/06/19 from [https://en.unesco.org/node/252278](https://en.unesco.org/node/252278)


