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Citation

WANG, Yang and LIM, Sun Sun. ICTs and transnational householding: The double burden of polymedia connectivity for international 'study mothers'. (2021). Research handbook on international migration and digital technology. 207-219.

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ICTs and Transnational Householding: The Double Burden of Polymedia Connectivity for International "Study Mothers"

By Yang Wang¹ & Sun Sun Lim²

Abstract

In contemporary society, information and communication technologies (ICTs) are widely cherished for helping transnational households preserve a coherent sense of familyhood despite geographical separation. By virtue of the constant connectivity bestowed by ICTs, international migrants and their left-behind family members can remain involved in the mundane experiences of each other's everyday lives and perform familial responsibilities from afar on a daily basis. However, the same polymedia environment that serves as the 'social glue of transnationalism' can also bring about deficiencies and potential negative implications for family functioning and well-being of family members. Drawing on both literature review and empirical evidence, this chapter seeks to provide a comprehensive insight into the dual role of ICTs in shaping life experiences of transnational families. The empirical case study presented in the chapter is derived from a two-year ethnographic research on ICT domestication by a group of Chinese migrant mothers in Singapore.

Keywords: information and communication technologies (ICTs), transnational communication, mediated communication, transnational householding, ethnography

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Introduction

Over the past several decades, the growing accessibility of information and communication technologies (ICTs), especially the mobile phone and the internet, have emancipated people from temporal and spatial constraints, and brought about unprecedented flexibilities in social communication (Fortunati, 2002; Turkle, 2011). For transnationally split households, ICTs assume particularly crucial roles as they constitute the only viable way to keep affective family bonds alive after physical separation (Paragas, 2009; Vertovec, 2004; Wilding, 2006). ICT-mediated communication, which enables information, emotions and care to transcend national boundaries, allows distant family members to stay updated on one another's emotional well-being and provide instrumental help anytime and anywhere (Parreñas, 2005; Uy-Tioco, 2007; Madianou & Miller, 2011; Baldassar, 2016).

Despite hallowed expectations around ICTs sustaining long-distance intimacy, transnational communication via ICTs are not without burdens. Indeed, they may also herald detrimental implications for family relationships. In particular, the "polymedia" (Madianou & Miller, 2012) environment imposes an obligation of constant availability for mediated communication, and thus brings about emotional burdens and guilt of family members who are unable or unwilling to maintain virtual co-presence (e.g., Baldassar, 2016; Nedelcu & Wyss, 2016; Peng & Wong, 2013; Wilding, 2006). This constant connectivity afforded by ICTs also give rise to digital surveillance of one another's whereabouts and daily life routines between transnational family members (e.g, Cabanes & Acedera, 2012; Chib, Malik, Aricat, & Kadir, 2014; Hannaford, 2015; Madianou, 2016). Moreover, ICTs can also introduce new dimensions of inequalities between transnational family members in terms of differential accessibility to technological infrastructures, quality of communication digital skills and so forth (e.g, Benítez, 2012; Cabalquinto, 2018; Horst, 2006; Lim, 2016; Parreñas, 2005).

In view of the equivocal implications of ICT-mediated communication for transnational households, this chapter seeks to provide a comprehensive insight into the role of ICTs in shaping life experiences of transnational families and their members. The analysis draws on both literature review and empirical evidence. Specifically, we bring together and review previous research on ICTs, mediated communication and long-distance intimacy, with special focus on various efforts to stay in perpetual contact with remote family members and the emergence of burdens, tensions as well as inequalities during transnational communication. The empirical case study presented in the chapter is derived from a two-year ethnographic research on ICT domestication by a group of Chinese migrant mothers in Singapore.

ICTs as the 'Social Glue of Transnationalism': Virtual Co-Presence and Polymedia Affordances

After transnational relocation, mediated communication through ICTs becomes the only viable option for physically split households to keep alive affective family bonds (Horst, 2006; Paragas, 2009; Wilding, 2006). By virtue of the constant

connectivity bestowed by ICTs, international migrants and their left-behind family members can remain involved in the mundane experiences of each other's everyday lives and perform familial responsibilities from afar on a daily basis (Parreñas, 2005; Wilding, 2006; Uy-Tioco, 2007; Madianou & Miller, 2011; Baldassar, 2016). Therefore, ICTs are widely venerated as the 'social glue of transnationalism' (Vertovec, 2004) which helps to preserve a coherent sense of familyhood characterized by collective memories, goals and welfare (Bryceson & Vuorela, 2002; Bacigalupe & Lambe, 2011).

According to previous studies, mediated communication strategies deployed by international migrants and their remote loved ones are largely determined by the technologies available in the context of certain eras (Wilding, 2006). There has been a transition from delayed and non-interactive connections such as cassette tapes and telegrams, to sporadic and expensive interactions through landline telephones, and all the way to synchronous and flexible communication via the internet and mobile devices. With this evolving panoply of technological tools, virtual co-presence via ICTs has become the habitual lifestyle of many contemporary transnational households (Madianou & Miller, 2012; Madianou, 2014; Wilding, 2006). With advanced ICTs, especially videocall software such as Skype, migrants and their left-behind families are able to 'live stream' each other's daily routines in a shared mediated space where information and emotions are reciprocated in a rich and continual manner as if they still live together (Wilding, 2006; King-O'Riain, 2015; Longhurst, 2015).

Research on ICTs and transnational communication has delved extensively into the ways in which transnational family members incorporate a variety of ICTs into their daily routines to reconstitute family intimacies. A major strand of current literature on ICTs and transnational householding delves into the renegotiation of parenthood, especially motherhood, in transnational families with children staying behind in their home countries. For migrant mothers, geographical relocation is always accompanied by the deviation from traditional gender ideologies of being major caregivers and nurturers for their children, which not only brings about emotional pain and a sense of guilt, but also causes tensions in their relationships with children and other family members back home (Parreñas, 2005; Fresnoza-Flot, 2009; Chib *et al.*, 2014).

Instead of forsaking parental responsibilities after physical separation, migrant mothers often seek to reconstitute or even strengthen their gender identity as 'ideal mothers' via virtual involvement in diverse facets of their children's daily routines on a daily or even hourly basis (Uy-Tioco, 2007; Madianou, 2012; Peng & Wong, 2013). They rely heavily on a variety of ICTs to carry out regular conversations with their left-behind children so as to stay updated on their physical and emotional well-being. These mediated mothering practices often go into extremely detailed aspects of everyday life such as waking them up in the morning and saying goodnight before going to bed, checking their dressing and appearance for school, reminding them to have meals and take medicine on time, as well as providing comfort when they are depressed (Parreñas, 2005; Uy-Tioco, 2007; Madianou & Miller, 2011; Madianou, 2012; Peng & Wong, 2013; Chib *et al.*, 2014).

Apart from ritual and emotional interactions, migrant mothers also provide instrumental and practical assistance in their children's educational and professional lives. Specifically, mothers with school-age children tend to take advantage of the simultaneous communications enabled by advanced ICTs to provide real-time guidance in their homework (Parreñas, 2005; Madianou, 2012; Chib *et al.*, 2014). Mothers with adult children, in the same vein, often share work experiences and provide practical advice on professional development to their children (Peng & Wong, 2013). In the event that their children get into trouble or encounter unfair treatment in their home country, migrant mothers can also advocate for their children and safeguard their rights via ICTs (Peng & Wong, 2013).

In a similar vein, transnationally separated couples are also found to employ a variety of ICTs to keep abreast of each other's daily activities and reproduce conjugal intimacies across vast geographical distances. Specifically, they can 'hang out' and enjoy daily conversations with each other in mediated spaces in which sharing mundane bittersweet occurrences in everyday life and expressing love to compensate for the missing 'face-to-face' contact (Aguila, 2009; Neustaedter & Greenberg, 2012; King-O'Riain, 2015). Moreover, transnational relocation of one partner usually requires couples to reconstitute long-standing familial obligations and routines. Simultaneous communications via ICTs allow real-time coordination around family matters between distant husbands and wives, and thus facilitate the smooth functioning of family life despite the physical separation (Cabanes & Acedera, 2012; Kang, 2012; Peng & Wong, 2013).

With the wide prevalence of smart ICT devices and proliferation of digital applications, transnational households are increasingly enveloped by an environment of 'polymedia' (Madianou & Miller, 2012) wherein ICTs of different functionalities coexist and combine to offer integrated multi-faceted structure of affordances. Living a polymedia life, transnational families can strategically mobilize a constellation of ICTs to meet different communication needs and appropriately manage intimate relationships (Madianou, 2014; Madianou & Miller, 2012; Wilding, 2006)

For instance, webcam software such as Skype and Facetime are particularly suitable for intensive 'deep conversations' where distant family members participate in each other's everyday routines and provide real-time emotional support in a quasi-faceto-face manner (Cabalquinto, 2017; Francisco, 2013; King-O'Riain, 2015; Longhurst, 2015). By keeping webcams on, they know that their loved ones are 'right there' for them, ready to talk, listen and respond, even though they engage in different tasks respectively without exchanging a word for hours (Francisco, 2013; King-O'Riain, 2015; Longhurst, 2015). Meanwhile, text-based communication such as SMS, instant messaging and emails, are used as complements for visual and audial interactions to maintain continual greetings, updates and coordination (Peng & Wong, 2013; Thomas & Lim, 2011; Uy-Tioco, 2007; Vancea & Olivera, 2013). In addition, many transnational families also stay in 'ambient co-presence' on social network sites like Facebook and

Twitter to get a sense of one another's quotidian bittersweet moments even without direct interaction (Madianou, 2016).

ICTs without Guarantee of Positive Implications: Burdens, Tensions and Inequalities

Despite hallowed expectations around ICTs strengthening long-distance intimacy, some transnational households acknowledge the inherent technological deficiencies and have concerns about their potential negative implications for family functioning and the well-being of family members.

In particular, the constant connectivity afforded by ICTs means far less than the immediate company of loved ones, especially when mediated interactions are reduced to mere rituals without intensive emotional investment (Madianou & Miller, 2011; Cabanes & Acedera, 2012; Vancea & Olivera, 2013). Even when transnational family members manage to provide visual companionship to each other and engage in real-time emotional exchanges with webcam applications, they still fail to enjoy full intimacy in the mediated space since they cannot physically touch, hug or kiss each other (Madianou, 2012; King-O'Riain, 2015). Sometimes it is precisely the simulated togetherness that reminds them of actual geographical distances lying between them, and thus engenders accentuated feelings of guilt, anxiety and loneliness on both sides (Parreñas, 2005; Wilding, 2006; Uy-Tioco, 2007; King-O'Riain, 2015; Baldassar, 2016).

Moreover, while the polymedia environment grants migrants unprecedented opportunities for constant connection with remote loved ones, it also brings about emotional burdens of constant availability for mediated interactions (Horst, 2006; Longhurst, 2015; Su, 2015). Typically, after long periods of physical separation, some members of transnational families may have less motivation to share life stories with each other (Thomas & Lim, 2011; Cabanes & Acedera, 2012; Peng & Wong, 2013). In this context, over-enthusiasm and high expectations of reciprocity by certain family members in transnational communications often become burdens for their remote loved ones (Wilding, 2006; Baldassar, 2016; Nedelcu & Wyss, 2016). For example, children of transnational families often lament that their parents constantly request mediated communication and intervene excessively in their daily routines (Madianou & Miller, 2011; Longhurst, 2013; Nedelcu & Wyss, 2016; Pham & Lim, 2016). In a similar vein, migrant mothers were also burdened by continuous family responsibilities as mother, wife, daughter, sister etc. due to the increasing availability of long-distance communication (Rakow & Navarro, 1993; Thomas & Lim, 2011; Baldassar, 2016). Virtual co-presence, instead of facilitating the re-negotiation of household power relations and labour division, often renders migrants and their family members to be virtually 'thrust back' into their family lives and hold on to their previous family roles (Uy-Tioco, 2007; Cabanes & Acedera, 2012; Madianou, 2012).

The constant connectivity bestowed by the affordances of polymedia can also descend into digital surveillance when transnational family members utilize various ICTs to monitor daily behaviours of left-behind children or spouses. Specifically, some

migrant mothers tend to closely monitor the whereabouts and media use of their left-behind children, even to the extent of scrutinising every corner of their rooms through webcam, checking their emails and having access to their passwords to online platforms, which children regard as an invasion of privacy and denial of autonomy (Madianou, 2012, 2016; Francisco, 2013; Chib *et al.*, 2014; Yoon, 2016). As for separated couples, ICTs also served as watchful eyes for interrogation into their dressing styles, physical movements, financial arrangements, social interactions and so forth, which tend to exacerbate estrangement and tensions between them instead of generating emotional closeness (Cabanes & Acedera, 2012; Hannaford, 2015).

Economic burdens of international migrants can also become aggravated due to the increasing convenience of transnational communication via ICTs. Especially with the prevalence of the mobile phone, migrants nowadays remain constantly accessible to their left-behind children and other relatives in the homeland who keep making financial and material demands such as asking for additional remittances or expensive gifts (Barber, 2008; Peng & Wong, 2013; Tazanu, 2015). In this sense, the possibility of real-time communication actually creates more burdens and anxieties to the already stressful life of migrants instead of providing emotional comforts and support (Barber, 2008; Peng & Wong, 2013; Tazanu, 2015).

Apart from emotional and economic burdens, ICTs are also found to create new inequalities within transnational households. Living in different geographical and sociocultural contexts, transnational family members often have differential access to and experiences of using ICTs, which brings about various inequalities in mediated family communication as well as household power hierarchies (Benítez, 2012; Parreñas, 2005; Plüss, 2013). Specifically, previous studies have scrutinized different accessibility to ICT infrastructures between migrants and their left-behind families, usually with the former enjoying superior connectivity and higher quality of mediated communication than the latter (e.g., Cabalquinto, 2018; Cheong & Mitchell, 2016; Madianou, 2014; Parreñas, 2005). Gaps in digital skills and competency are also widely noted within transnational households where women and elder family members tend to be less technologically savvy and consequently marginalized in family communication (e.g., Kang, 2012; Pham & Lim, 2016). In addition, the increasingly convenient coordination of remittances also contributes to establishing and reinforcing authority and power hierarchies in the household (e.g., Madianou, 2012, 2014; Mckay, 2007; Parreñas, 2005). These inequalities, either clearly recognized or remain unconscious to transnational families, can trigger self-deprecation and sense of insecurity among disadvantaged family members, which in turn, undermine family cohesion over time.

Transnational Householding of Chinese 'Study Mothers': A Case Study

To better illustrate the ambivalent implications of ICTs for transnational householding, we will present a case study on ICT use and transnational family communication of Chinese 'study mothers' ('peidu mama') who accompany their school-

going children to pursue education in Singapore (Huang & Yeoh, 2005, 2011; Wang & Lim, 2018).

Study mothers originate from the burgeoning family arrangement of 'education migration' among middle- and upper-middle-class households across East Asia. In typical households undertaking education migration, mothers uproot and resettle along with their children who receive education in more developed, typically English-speaking countries, while the fathers remain in the home country to continue working and provide financial support (Huang & Yeoh, 2005; Lee, 2010; Waters, 2002). This trend is widely witnessed among middle- and upper-middle-class households across Asia, including 'astronaut families' from Hong Kong and Taiwan (e.g., Chee, 2003; Waters, 2002), 'kirogi families' from South Korea (e.g., Jeong et al., 2014; Lee, 2010), and 'peidu families' from Mainland China (e.g., Huang & Yeoh, 2005, 2011; Wang & Lim, 2017).

For peidu families, Singapore is one of the most popular destinations due to its cultural proximity to Chinese society, bilingual education system (English with Malay/Mandarin/Tamil), incentive schemes for foreign students and their care-givers, as well as their relative affordability (Huang & Yeoh 2005, 2011). Chinese peidu mama started to flock to Singapore in rising numbers after the Singapore government issued a special type of long-term social visit pass to 'Mother or Grandmother of a child or grandchild studying in Singapore on a Student's Pass' (website of Singapore 'Immigration & Checkpoint Authority'). This gendered immigration policy classifies the study mothers as dependents but also nurturers of their children, and their legal status terminates once their children quit the overseas education or enter college. Therefore, unlike business or skilled immigrants who enter the destination country on their own steam as citizens or potential citizens, study mothers mostly remain as 'transient sojourners' (Huang & Yeoh, 2005) who are marginalized in the host society and prepare to return to their homeland upon their children finishing studies abroad.

Compared to their husbands who retain their existing jobs and social relationships, study mothers tend to pay a higher price for education migration as they disrupt their lives and sacrifice their own career aspirations, social lives and conjugal intimacy to care for their children (Chee, 2003; Huang & Yeoh, 2005; Jeong et al., 2014). Becoming de facto 'single mothers' after transnational relocation, they are faced with broadened parenting obligations and domestic workloads, while at the same time being expected to continue fulfilling family responsibilities and maintaining affective bonds with left-behind family members. ICTs, which enable the flow of information, emotions and care to straddle geographical boundaries, thus play a critical role in these women's everyday negotiation of transnational family relationships (Wang & Lim, 2018).

Empirical data presented in the case study was collected from 40 study mothers through ethnographic methods including participant observation, semi-structured interviews and media diary (see also Wang, 2020; Wang & Lim, 2018). Analysis of qualitative data reveals that the Chinese migrant mothers studied were living a polymedia lifestyle where on the one hand, they benefit from technological affordances

of various ICTs to maintain long-distant intimacy and seek emotional supports, while on the other hand, also experienced multifarious emotional burdens and digital asymmetries originating from transnational communication.

The bright side of ICTs: affective streaming, transnational coordination and emotional compartmentalization

In the face of physical separation of households, the study mothers in this case study relied heavily on mediated communication to 'stream' their quotidian life experiences to their remote family members and properly coordinate multi-sited family life. Multifarious ICT devices and applications, each providing different technological affordances and deployed for different communication needs, were woven seamlessly into the fabrics of participants' transnational lives and helped them to negotiate family intimacies from afar.

For most study mothers in the current study, constant 'streaming' of quotidian life experiences to each other had become the default state of their transnational life (Wilding, 2006; King-O'Riain, 2015; Longhurst, 2015). Specifically, they reported continual or at least regular conversations via ICTs with their families back home, especially their left-behind husbands, to stay updated with each other's physical and emotional well-being. Instead of merely routinized greetings or discussions of important family events, these conversations mostly went deeply into mundane activities or feelings in their everyday lives such as what they ate for dinner, interesting stories they had heard, the weather and the like. The virtual presence of absent family members allowed information and emotions to flow smoothly across geographical borders, and thus reproduce and renegotiate family relationships on a continual basis.

Video calls were identified by many study mothers as their favourite approach of mediated communication with their left-behind family members. The visual affordances of webcams allowed participants and their remote loved ones to actually 'see' each other and engage in collective activities despite vast geographical distances (Wilding, 2006; King-O'Riain, 2015; Longhurst, 2015). During the observations, many participants were found to leave the webcam on for an extended period of time while engaging in domestic chores or other activities at home. Instead of being fully concentrated on the mediated conversations with their husbands or other close family members, they engaged in sports, replied to messages, performed skin care routines, undertook domestic chores and so forth along with discreet chatting, as if they were still living together and talking to each other from time to time. For both parties, this 'half-hearted' visual communication created the perceived reality of tangible involvement in each other's quotidian bittersweet encounters and a reassurance of togetherness without disrupting their regular life rhythms (Wilding, 2006; King-O'Riain, 2015; Longhurst, 2015).

Prolonged video calls were also supplemented by other mediated communication approaches, including voice and text messages, photos, hyperlinks, emojis and so on, to stay in continual or at least regular contact between study mothers and family members, especially when spatial and temporal conditions did not permit

face-to-face or visualization interactions. A typical scenario is the tradition of 'food show' practiced by many participants wherein they and their far-away family members, usually their husbands, took photos of every meal they had and exchanged these photos in a real-time manner (Wilding, 2006; King-O'Riain, 2015; Longhurst, 2015). Photos of daily clothing, natural landscapes, public events and so on were also frequently reciprocated via IM or SNS platforms, which allowed them to keep abreast of each other's mundane life experiences even without direct mediated interactions. Besides photos, these mothers were also found to share interesting or useful hyperlinks, videos, stories, riddles and so on with their remote loved ones. For transnational families like them, more important than the specific photos or fragmentary information exchanged was the continual existence of the interaction itself.

Apart from the aimless 'small talk' demonstrated above, transnational households of study mothers also employed ICTs to coordinate family activities and provide instrumental help for each other across vast geographical distances (Cabanes & Acedera, 2012; Kang, 2012; Peng & Wong, 2013). Owing to the synchronized interactions enabled by ICTs, the majority of domestic affairs, such as decision making, online purchase, schedule confirmation and so on, can all be negotiated and solved collectively between transnational family members in a real-time and precise manner. During the participant observation, such transnational coordination process often happened naturally and smoothly, without distracting other daily tasks of both sides. For example, when a participant coordinated with her husband to buy airline tickets back home, they virtually 'sat together' to solve a series of problems including selecting the optimal air route, entering passenger information online, re-sending the verification code, downloading a digital itinerary etc. The entire coordination process happened on WeChat through a combination of video call and text messages. Neither of them sensed any inconvenience despite the vast physical distances between them.

Unlike migrants from less-well-off backgrounds, such as refugees and foreign domestic workers who could not always access or afford ICTs (e.g., Cabalquinto, 2018; Parreñas, 2005; Wilding, 2012), the study mothers in this study hailed from relatively well-off middle-class families and were unconstrained by such issues. Instead, these migrant mothers were located in an integrated environment of 'polymedia' where the social, cultural and emotional considerations of choosing between multiple ICTs are more salient than prosaic issues of cost and access (Madianou & Miller, 2012). In their transnational communication routines, these migrant mothers created idiosyncratic personal repertoires of ICT use in which each ICT device or platform is attached with unique symbolic meanings, and multiple available ICTs are strategically deployed in an alternate manner to manage various relationships. In particular, they were found to compartmentalize their mediated communication according to cultural inclinations, potential audiences and technological affordances of different ICTs (see also Wang & Lim, forthcoming).

In the context of mediated family communication, study mothers demonstrated strong capabilities in identifying implicit emotional cues of different ICTs and selecting

the most appropriate communication approaches in different circumstances. For instance, visual and voice calls, which are known to facilitate 'focused interactions' (Burchell, 2015), were commonly used by these mothers when they were eager to express strong feelings and affection to intimate family members (see also Longhurst, 2013, 2015; King-O'Riain, 2015). By contrast, IM and SNS platforms, which often convey 'frequent and short interactions' (Licoppe, 2004) and 'ambient co-presence' (Madianou, 2016), were likely to be chosen when they wanted to exchange pragmatic and fragmentary information without devoting intense emotions (see also Licoppe, 2004; Köhl and Götzenbrucker, 2014; Longhurst, 2015).

Apart from choosing among multiple ICTs, the participants also made the most of the polymedia affordances to adjust mediated communication routines in terms of content, tones, gestures, form of expression and so on. For example, when a participant shared photos taken at her and her child's volunteer activity, she was found to share dozens of unadulterated photos with her husband via WeChat on an ongoing basis, while posting only three elaborately embellished photos in her family chat group comprising more than 20 extended family members. Such compartmentalized photo sharing routines allowed her to negotiate the most appropriate emotional distances with different family members. With her husband, who was her most intimate family member, she could freely 'spam' him massive amounts of 'useless' information without concerns about timing and quality of sharing. With relatively less-intimate relatives, she chose to project herself as a well-groomed and considerate person who was willing to disclose her life experiences yet not inundate her friends with too many personal issues.

When ICTs backfire: emotional labours of constant connectivity and digital asymmetries

Whilst ICTs and the polymedia lifestyle bestow unprecedented opportunities to sustain long-distance intimacy, they also introduce new burdens and dilemmas (e.g., Horst, 2006; Parreñas, 2005). In the case of Chinese study mothers, physical distance with left-behind family members did not exempt them from fulfilling family obligations, but rather exacerbated their workloads of transnational coordination and multi-cultural navigation. Therefore, many participants had experienced circumstances where transnational communication with remote family members translated into burdensome undertakings.

For these migrant mothers, the possibility of constant connectivity via ICTs actually imposes an obligation of constant participation in or at least availability for mediated interactions, and poses threats to family intimacy whenever an expected interaction does not happen or fails to gain sufficient concentration (see also Burchell, 2015; Licoppe, 2004; Longhurst, 2015; Su, 2015). During participant observation, many participants engaged seamlessly in family decision making and daily small chats with their left-behind family members, especially their husbands, parents and siblings, on an hourly basis with a combination of video calls, voice and text messages, photos, hyperlinks and so on. Specifically, they were found to coordinate various mundane affairs in real-time, such as buying new clothes, house renovation, itinerary planning,

and provide greetings, congratulations and emotional support whenever something delightful or sad happened to their relatives. Such virtual companionship constantly reminded study mothers of their family roles as wives, (grand)daughters, sisters, nieces for their far-away loved ones, and brought about stresses when they were perceived as 'incompetent' in fulfilling related family obligations.

For instance, physical absence could no longer exempt these migrant mothers from the obligation of emotionally supporting their family members due to the wide availability of real-time mediated communication. It was not rare to see them suspend work tasks or domestic chores to send congratulatory messages and digital 'red packets' (a function of WeChat for small amounts of monetary exchange) to relatives who announced good news such as weddings, children's entrance into good high schools and moving into new homes. Failure in promptly responding to such joyful events would relegate the participants to be regarded as indifferent and ungrateful by the entire family. Similar stresses also emerge when the participants were constantly asked by left-behind family members to help purchase commodities from abroad. Compared to asking for remittances or gifts, which brings economic burdens to international migrants (e.g., Barber, 2008; Peng & Wong, 2013; Tazanu, 2015), their new role as 'purchasing agent' tended to trigger more emotional strains and tensions to family relationships, especially when they failed to find the requested items or to buy them at the expected low price.

The constant connectivity bestowed by ICTs also gave rise to the emotional labour of constant performativity (see also Wang & Lim, forthcoming). In particular, many study mothers reported feeling burdened by the perpetual pressure of appropriate self-presentation in transnational communication. Uprooted from the homeland to venture into unfamiliar foreign terrain, these mothers often feel obliged to display a strong and optimistic image in front of their left-behind kin, so as to gain respect from them and alleviate their concerns and anxiety. As a result, they made efforts to present the brightest and happiest side of their everyday lives during mediated communication, usually to the extent of hiding all the negative emotions and concertedly tuning their modes of expression. For example, in the aforementioned case of compartmentalized photo sharing, the participant embellished photos before sharing in family chat group to present remote relatives a well-groomed and happy transnational life, even though she was indeed tired of such 'face work'. Although similar emotional labours existed long before the prevalence of advanced ICTs, the increasingly convenient and synchronized mediated communication have made it a dayto-day emotional undertaking for contemporary transnational households.

Another common challenge faced by study mothers concerns their efforts to properly choose among and alternate between multiple ICT platforms for mediated family communication. As previously mentioned, in the integrated environment of polymedia affordances, different ICT platforms have different cultural inclinations and potential audiences, thus engendering different norms and expectations of mediated interactions. In this context, some study mothers can be trapped by 'context collapse' (Davis & Jurgenson, 2014; Marwick & Boyd, 2011) when they brought seemingly

inappropriate contents or expressions from one mediated context to another (see also Wang & Lim, forthcoming). A typical example of context collapse was the 'misuse' of English during family communication. Several participants complained about their unpleasant experiences of being misunderstood by their left-behind kin as 'show-off' when she unconsciously mixed English words in their mediated conversations on WeChat or other China-based ICT platforms where Chinese was perceived as the 'appropriate language'.

Apart from emotional labours derived from the polymedia and perpetual connectivity lifestyle, ICTs also created new dimensions of inequalities within transnational households. Unlike many other transnational families suffering from unequal access to ICT infrastructures and quality of mediated communication (e.g., Cabalquinto, 2018; Cheong & Mitchell, 2016; Madianou, 2014; Parreñas, 2005), the study mothers and their remote family members were beleaguered by more invisible and nuanced 'digital asymmetries' (Lim, 2016) characterized by gaps in routines, emotional experiences as well as outcomes of ICT use (Wang & Lim, forthcoming). In particular, digital asymmetries could emerge when a study mother resorted to asking her adolescent child to set up video calls with remote family members ('competency asymmetry'), while she waited a long time to receive a perfunctory greeting from her left-behind husband ('expectation asymmetry'), and when she unconsciously arranged every video call according to the work schedule of her husband instead of her own preferences and needs ('autonomy asymmetry'). Whilst these asymmetrical mediated routines sometimes remained invisible even to the participants themselves, they could indeed trigger frustration and disappointment in certain family members, and in turn, damage family intimacy in the long run.

Conclusion

In this chapter, we present extant literature and empirical data on both benefits and burdens of transnational communication, which help to understand not only the role of ICTs in maintaining long-distant relationships, but also potential emotional labours and asymmetries that might emerge during mediated interactions.

The analysis reveals that ICTs, as well as the polymedia lifestyle they forge, can contribute to either mobility or immobility of transnational family members. On the one hand, ICT-mediated communication facilitates information, emotions and care to transcend geographical boundaries in real-time, thus allowing international migrants to bring their home along with them wherever they go (Horst, 2006; Paragas, 2009; Wilding, 2006). On the other hand, the same virtual co-presence that grants migrants greater mobility also anchors them to their previous family roles and obligations, which renders them emotionally immobile albeit physically apart (Uy-Tioco, 2007; Cabanes & Acedera, 2012; Madianou, 2012).

As far as the Chinese study mothers are concerned, despite physical separation with left-behind family members, they remained intimately involved in their quotidian bittersweet experiences and could dutifully fulfil family responsibilities as wives,

daughters, nieces etc. as if they never left. As 'transient sojourners' (Huang & Yeoh, 2005), these migrant mothers tended to devote more time and energy to maintaining intimate ties back home than acculturate to and assimilate into the host society (Wang & Lim, forthcoming). Therefore, they appreciated the polymedia affordance of ICTs, which allows real-time coordination of family matters and emotional exchanges with their remote loved ones.

However, the same polymedia connectivity can backfire when it imposes obligations over these mothers yet fails to provide practical support for their pressing needs. Due to the convenience of long-distance communication, these women are expected to participate actively in family activities, respond promptly to requests of leftbehind family members, and provide regular updates of their own life experiences. As de facto 'single mothers' after relocation, they took up additional parental tasks and domestic labours, which could hardly be alleviated by virtual support from their families. In this sense, ICTs actually conspire with geographical distance to create a double burden for study mothers in which physical separation deprived them of handson familial support yet these ICTs constantly conveyed the obligations of transnational householding and reminded these women of their familial responsibilities.

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- This is the pre-print version of: Wang, Y., & Lim, S. S. (forthcoming). ICTs and transnational householding: the double burden of polymedia connectivity for international "study mothers". In M. McAuliffe (ed), Handbook of migration and technology. Edward Elgar.
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