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**Mobile Phones as Life and Thought Companions** 

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Abstract: According to adults who ban adolescent interactions with

mobile phones in Chinese high schools, students 'addicted' to mobile

phones lack will power and schools without a restrictive policy on

mobile phone use among students on campus are 'poor' in quality.

Upon analysis of data from 45 semi-structured interviews with second-

year high school students from urban, rural, and Tibetan regions of

China, this study finds that the consequences of mobile phone use are

not always pre-determined. Teens do not merely use their phones to

connect; they also treat them as 'life' and 'thought' companions, which

they invest with feelings and thoughts that animate life experiences

and catalyse healthy development. The wholesale ban on mobile phone

use in school is destined to fail and risks blinding parents and

educators to potential benefits the technology has to offer, for it

overlooks the value of mobile phones as objects of 'passion' and

'reason', ignores the opportunity to engage with teens who make

visible online the problems they struggle with offline, and disregards

the need for empathic imagination.

Keywords: Adolescent; Care; China; High School; Smartphone; Wellbeing

#### 1.0 Introduction

While mobile phones are increasingly integrated into adolescent lives in China, many high schools adopt a restrictive approach to students' use of the technology on campus. Although students' outside world has undergone enormous transformations, most Chinese high schools remain largely unchanged in how they teach and assess their students. As such, there appears to be a 'digital disconnect' between students' social lives and their school experiences (Selwyn 2007, 39). To many educators, particularly older teachers (Thomas and O'Bannon 2015), mobile phone use disrupts learning and teaching and students 'addicted' to their phones are weak in will power. To many parents in China, schools implementing strict policies regarding mobile phone use are of high quality (Liu 2011, 9). Such adult views assume that mobile phones and the networked cyberspace they proffer have some external power that follows inevitable courses (Archambault 2011, 446) and impacts on students for worse or better in all contexts (Selwyn 2011a, 41).

When mobile phones are viewed to be influencing schools yet beyond the influence of schools (Buckingham 2007, 74), they cease to be a means to achieve subjective ends. Instead, they become something that can undermine school norms, disrupt 'proper' learning and teaching that are key to success in the life-transforming National College Entrance Exam, known as Gaokao in China, and at times leave students prey to risks, such as addiction and pornography (Buckingham 2008, 11; Selwyn et al. 2017, 290). This negative deterministic view of technology contrasts with its positive deterministic cousin, which regards digital technologies as a driving force in the history of education. They affect teachers as well as students and shape

schools to meet the requirements of efficiency, progress, and modernity (Selwyn 2007); they offer immense resources for enlightenment (Benkler 2006) and possess the potential to liberate students as well as teachers from narrowly defined ways of learning and teaching (Buckingham 2008, 11). This positive deterministic view is not new, for people believe that, just as cars have extended their feet, digital technologies such as mobile phones and the Internet have the capacity to extend their eyes and brains (Selwyn 2011a). However, in the Chinese high schools chosen for this research, mobile phones are normally associated with 'fear-based reactions' (Odgers 2018), just as social media is sometimes portrayed as drugs in the UK (Przybylski and Orben 2017). Unsurprisingly, mobile phones are not usually allowed to enter classrooms or even students' daily lives on campus in many Chinese high schools, including the three schools in this study.

However, school policy to ban mobile phone use on campus largely reflects adult values and fears (Herring 2008, 75), youth perspectives born out of their lived experiences often contradict what adult commentators have to say or fear. This is confirmed by a recent study that analysed large datasets collected from the UK and USA, as it detected very weak, if at all, correlation between digital technology use and wellbeing among young people (Orben and Przybylski 2019). In parallel with a mixture of findings regarding digital technology use and young people's health and wellbeing (Odgers 2018; Orben and Przybylski 2019; Dickson et al. 2019), students simply 'do whatever they are not supposed to' (Herring 2008, 80). Unfortunately, as Herring (2008) noted, youth views lack financial and institutional backing, and teens have to operate within a system that is defined and dominated by adults and their discourses. It follows that how teens behave and what they highlight about themselves in real or virtual lives are often framed and perhaps re-framed by meanings and values,

which themselves are the products of personal and collective social processes we call culture, a kind of master framing (Kleinman 2012b). In education, that culture substantially shapes what constitutes a 'good' student in a 'good' high school in China. And for sure, teens in Chinese high schools are not always impervious to official discourses about mobile phone use. They often endorse or even represent (see also Micheli 2015; Fu 2018) adult interpretations and actively participate in various forms of self-monitoring, which renders problematic those narratives that celebrate youth agency in cyberspace.

As students monitor their own behaviours surrounding mobile phone use, the very same technology as a form of empowerment (Benkler 2006) turns out to be a tool for what Foucault called 'self-surveillance' (1990) – students become their own policemen and need to make sure that their interactions with their phones conform to acceptable norms. In that sense, cyberspace becomes something like Jeremy Bentham's panopticon, a wheel-like prison where inmates are made to believe that they are always being watched by a prison guard on top of the hub (Turkle 2011, 262). As a result, they usually look at themselves through the eyes of their peers, teachers, and parents (Turkle 1995, 248).

It is also important to recognise that adolescent use of mobile phones does not necessarily follow pre-defined paths, like 'an arrow seeking its target' (Feenberg 2003, 79). In fact, not all teens use mobile phones to merely connect with others and sometimes their interactions with the technology are like trees branching out in myriad ways. The 'right' direction, if any, thus depends on the context of use, just as the healthy development of a tree relies on its surrounding environment (Selwyn 2011a; Waytz and Gray 2018). That is to say, the effects of youth engagement with

mobile phones cannot be pre-determined by a certain evil purpose embedded in the device (Feenberg 1992, 308), and the consequences of use are not inevitable (Wajcman 2008, 67). This message is implied in the recent UK Chief Medical Officers' commentary on the relationship between screen-based activities and young people's mental health and psychosocial wellbeing (S. C. Davies et al. 2019).

That being the case, a more progressive analysis of teens and mobile phones must highlight both adults' and adolescents' roles in the negotiation of various rules regarding mobile phone access and use under home and school conditions (Selwyn 2011a), and take into consideration broader sociological factors in China that shape the sub-contexts of schools within which mobile phones are adopted and used (Selwyn 1999). In other words, it must recognise that mobile phone use is as much integral to the 'social machinery' (Farmer 2004) as any other human undertakings (Bromley 1997, 53), and that it is part of and influenced by the structural forces that are usually ethnographically invisible (Selwyn 1999; Farmer 2004). The sociotechnological approach is thus based on the assumption that mobile phones are not 'a set of neutral, benign, and homogenous artefacts' (Selwyn 2007, 36). Instead, its use is socially constructed, meaning different stakeholders such as teachers, parents, carers, and students create, negotiate, and attach differing and even conflicting forms, meanings, and uses to the same technology in question (Oudshoorn and Pinch 2003, 24; Horst and Miller 2006).

#### 2.0 Aims and Methods

The research described here is part of a broader study (Xiao 2013), which employed mixed methods to examine the ways in which social and educational factors related to technology access and use and the meanings and values with which

students invested their devices such as computers, mobile phones, and the Internet. The findings reported here draw on data from the qualitative strand of the project, which set out to understand how adolescent appropriation of and engagement with mobile phones and the cyberspace they proffer (the technology thereafter) affected the students selected for the study, and the other way around, how their specific home and school structures shaped the ways in which they approached the technology in question. As such, the study was not simply 'interested in telling new stories about new technologies' (Selwyn 2011b, 211) of those who were already 'privileged in other areas of their lives' (Buckingham 2008, 18); it also aimed to produce insightful accounts of both ordinary and extra-ordinary aspects of adolescent engagement with the technology under concern (Selwyn 2011b, 212).

The research conducted 45 interviews with second-year high school students from urban, rural, and ethnic Tibetan regions of China, namely, Schools Nanshan, Hengshan, and Basum in Shenzhen, Hunan, and Tibet. The schools were purposively selected to reflect the 'maximum variation' (Xiang 2007) principle. They are therefore very different in a number of ways. Shenzhen is one of the most developed cities in China and often regarded as the Silicon Valley of China. It is next to Hong Kong in the south. Hunan is an inland province in the central south, where the majority of its rural population were migrant workers in cities like Shenzhen when the study took place. As a result, most Hengshan students were 'left-behind' (Xiang 2007) children of migrant workers and many grew up with grandparents or other close family members from very early on in Childhood. Basum is about three hours' coach ride away from the capital city of Lhasa in Tibet. Unlike those in Nanshan and Hengshan, students there come from across the autonomous region in the north west, which means they are much more diverse in terms of sociodemographic profiles than

their counterparts are in the other two schools. Nevertheless, all Basum students in the study are Tibetan.

Despite the above differences in the three schools, with each representing one type of schools in China, there are also many common features that make them Chinese high schools. For instance, most students surveyed in the study live in school dormitories and strive for one goal, which is to perform as well as possible in the Gaokao. The exam is held once every year throughout the country. An overall score a student achieves in the Gaokao can have significant consequences for life chances. Also, all three schools banned mobile phone use on campus, although the policy effected to varying degrees. As mentioned earlier, the study recruited year 2 students only, which means the students were of a similar age, in research design language, the age variable was controlled for at the design stage. In all three cases, interviewees consisted of both males and females, arts and science tracks, key and ordinary classes, all in similar proportions.

Regarding interview samples, 15 students, aged 17.4 years on average in 2011 when the data were collected, were selected in each school, with five each representing high, medium, or low level of engagement with the technology, which was measured by a preceding survey 698 students filled out in their classrooms. It is worth noting that, despite the age of the data, (adult) concerns over digital technology use and young people's wellbeing are still relevant today (Orben and Przybylski 2019; Przybylski and Orben 2017; Waytz and Gray 2018), just as adults worried about their children's time spent on the telephone, rock 'n' roll, comic books, and romance novels in the past (Odgers 2018434).

These carefully selected interviewees, though small in number, were able to

provide great depth of information pertinent to the level and nature of student engagement with the technology, for social and educational processes register in individual lives to varying degrees. Unlike structured interviews that mainly reflect researchers' concerns and discourage nuisance topics, interviews in this study emphasised informants' perspectives and allowed them to ramble off at tangents. A few students were actually interviewed more than once. The interviewing technique employed is thus semi-structured in nature (Bryman 2008, 438).

However, throughout the interviews, I did occasionally lead students to comment on specific aspects of technology use in particular contexts so that the reporting of their past became a situated, restricted and focused re-creation or reframing of their experiences (Uliens 1996, 123). This is because we as individuals have different ways of telling about the very same event or experience, and it depends on to whom, when, and where we are talking (McAdams 1993), and research interviewing is just one of those settings. Put in another way, human experiences are never neat or out of context. They are always framed by the meanings and values that animate our lives (Kleinman 2012b, 608). Therefore, in Francis' words, 'some predetermined "leading experiences" and "leading prompts" are required to focus the interview appropriately for the aims of the study' (1996, 39). That way, students' experiences could be better captured through their reflections as 'reporting subjects' rather than 'interrogated objects'. Nevertheless, the informants were not 'forced into some kind of strange meta-talk about issues which they have never talked about before' (Säljö 1996, 21). In other words, interviews of the study were not merely situational social constructions. Instead, they brought about the informants' awareness that some aspects of their experiences had changed 'from being unreflected to being reflected' (Marton 1994, 427).

Also, as a researcher, I was not an objective questionnaire in a human form. Instead, I was flexible, trying to discover an objective reporting of the students' statements and comments on their level and nature of engagement with the technology in and out of schools. Whether or not that objectiveness is possible to achieve in social and behavioural research is debatable, because in certain cases, such as psychoanalytical analysis, 'fantasies and wishes carry their own significant messages' (Turkle 2011, 240), which implies that it does not always make sense to ask what is true. Nevertheless, truth is important and, in the study, I was still primed to stick to that objectiveness. On the one hand, I needed to help those students bring their experiences under concern into awareness and ask them to reflect upon them. On the other hand, I also needed them to help me do the same to the information they had generously provided. Francis (1996, 40–41) viewed this process as a dialogue, which requires participants to draw upon each other's awareness and reflection so that the data collected become 'more honest than socially desirable, more actual than official, and more consistent than context-dependent' (Livingstone and Bober 2006, 94). Ultimately, the study aimed for the best sample of students' narratives about their experiences in terms of accuracy in meaning. In that regard, the final dataset owes its content to both the relation between the students and mobile phones and, the nature of the dialogue, including the context of the conversation, between me as a researcher and each informant (Bowden 1996, 65).

#### 3.0 Findings

### 3.1 The Meanings of a Mobile Phone

To many students, a life with a mobile phone and a life without one are two different ways of life. Without a phone, Shan feels she 'needs a phone to do this, and

a phone to do that.' But once she gets used to a life without a phone, she takes extra care when doing many things. Gradually, she realises that she can still achieve a lot without a phone. A phone thus delivers and reduces. It delivers when it makes life easier. It reduces when students like Shan rely so much upon it that they often feel they cannot cope without it. Heng regards her phone not just as an added convenience to her daily life, but also something like 'three meals a day' she takes every day. She says it is not important, yet acknowledges it is necessary.

Others are so used to a life with a phone that it takes them a life without one to realise how important it is. After the loss of her handset, Jingwen found life inconvenient wherever she went. Without a phone, she often felt 'awkward (bieniu), bored (wuliao), and depleted (kongxu).' Weizhou once lost his connection to his QQ account, which he normally logged in from his phone. He was overwrought until 'it suddenly came back again,' which made him elated. His phone was so mesmeric that he not only brought it to school, but he also slept with it – the phone helped him fall asleep by playing its music to him on numerous sleepless nights. Chengsu began to use her phone a year ago. She recalled that she was overjoyed when she first had the phone, for she no longer needed to borrow a handset to ring her migrant parents in Guangzhou. But her phone was more than a connecting device — it was also a music player, a camera, and a diary book.

Mobile phone is of significant value also because it 'facilitates the smooth functioning of everyday life' (Ling 2012). To Eason of Nanshan in Shenzhen, a phone is vital in building and maintaining healthy ties with others. 'It's an essential tool. I'd feel disowned [by friends] if we are out of touch for long,' Eason stressed. Sin echoed the same point by drawing the analogy that a phone is like a means of transportation,

without it, we would be like 'a deserted island in a remote ocean.' Unsurprisingly, most students in the study have a phone in school 'just in case they need it,' even that is against school policy over mobile phone use on campus. As such, mobile phone has become a 'necessary evil' (Ling 2012, 2; Archambault 2011, 453), as Nali in Shenzhen articulated:

Most likely, we need a phone to contact friends, particularly those who are not in the same school. Even in the same school, we may not study in the same class; even in the same class, we may not live in the same dormitory; even in the same dormitory, we may not be together with one another. We need a phone in all such circumstances.

A mobile phone is even more valuable for life on the Tibetan plateau than it is in the other two schools of the study. Dunzhulaba views his mobile phone as his 'eyes and ears.' Without it, he would be unable to obtain reliable information. His handset was repaired once and he knew what it was like without it, for all the data, as he put, were communicated via his phone. As students do elsewhere, he also uses mobile QQ and relies upon his phone for music on his way to and from school every day. Occasionally he takes photos with it before uploading them to his QQ space. From Shigatse, the second largest city of Tibet, Bianba began to use her mobile phone when she was in middle school. Her school was too far away from home and every weekday she had to walk a long way to and from the school. It now takes her seven hours or so by coach to travel from home to her high school Basum. 'With a mobile phone, it is very convenient,' the student asserted. As she lives in school, she calls home every Saturday and on Wednesdays her mother rings her on time. Once a week, she also communicates with her sister in another high school in Tibet.

But to others, a phone is just a phone. Ting in Hengshan of Hunan viewed a life without a phone to be easier, for, in her view, all those with a phone in her school have to use it with a 'psychological burden.' Gangliu of the same school also commented on this invisible pressure: '[Regarding] using a phone in school, [I am] always concerned that my phone would be confiscated soon.' Weizhou viewed the policy terrifying, as if the sky would fall (*bu de liao*) once his phone was discovered. So, he had to go through a mental battle when making the decision on whether or not to bring his handset to school every time. It turned out that most of the time, he went for a phone (see also Selwyn et al. 2017, 293); only once did he leave his handset at home for one week. He did not know how to explain why he did that. Instead, he attributed it to his lack of will power. Therefore, his stated view that a phone is not important may result from the school's restrictive policy, for the official interpretation is that life without a phone is better in school – phones can be too distracting to learning and teaching. Indeed, adolescent use of mobile phones sometimes 'represents' adult views and values (Micheli 2015).

#### 3.2 Phones in School

In order to use a phone in school, students also need to cross a material barrier when it is difficult to charge handsets in either dorms or classrooms. And teachers normally confiscate handsets when they detect use on campus. As a result, Bianba in Tibet is very careful when using a mobile phone. However, Dasi of Basum reported that some teachers allowed students to use their phone outside classrooms, but administrators would implement his school's policy whenever they found students using a phone. 'Therefore, there is no time we can use our phone,' Dasi lamented. 'They simply don't give us freedom,' Zaxipubu chimed in, 'I don't see anything

wrong with a mobile phone.' It is understandable that he made the above comment, for his teacher confiscated his phone not long before the interview. He asked in vain for the return of his phone several times. What upset him most, however, was the teacher's knowledge of some intimate messages stored in the phone:

It was taken away while being charged during the morning exercise break on the Wednesday the week before last week. It disappeared when I returned. I then went to see the teacher, he said it was with them and asked me why I charged the phone in the classroom. He asked my parents to come before he could release the handset to me, but my parents are far away at home, how can I ask them to come? They [the teacher and his colleagues] even read my text messages. When I was there, he hinted what I said in those messages! They intruded on my privacy!

To avoid student resentment described above, some teachers of Hengshan in Hunan ask their students to 'deposit' devices at their places, and promise that they can go to use their phone whenever need arises. Nevertheless, as Gangliu reported, very few students had actually handed their phones in. To the teachers, a mobile phone is just a phone, a phone to make calls; but to many students, a phone can be a safety device when they perceive the outside world to be risky. For instance, Bella's parents know where she is when she is out in Shenzhen, and she can 'dial for help' when something happens. Xiumeng has also developed a habit of reporting her wellbeing and whereabout to her parents wherever she goes. She feels insecure without a mobile phone, as she reasoned: 'It is up to you to decide whether or not to use a phone when you have one, but if you don't have one, you no longer have that option.'

Since teachers could not effectively control if and how students use their mobile phones in school, Yao of Hengshan argued, the policy only forced their use of mobile phones to be 'more covert and sophisticated.' He contended that his school could never entirely prohibit mobile phone use. Teachers may think that students obediently follow the rule, but adolescent ways of circumventing the policy are often too unconventional to be noticed. As such, Yao concluded: 'the results would be better should the school allow us to use it openly, openly after class or during breaks.' Lu said the policy is like one-size-fits-all, for many students with a phone are not using it to surf the Internet or chat on QQ; they need to stay in touch with their parents in other provinces, as Ling (2012, 174) noted, students are expected to be available to their parents. But the weight of expectation is even greater in romantic relationships where non-response to text messages or calls often hints a suspicious change of mind.

Therefore, as Sin in Shenzhen contended, such a policy is no different from the state's regulation over sex industry — the government claims to have zero tolerance towards it, yet it is widespread throughout the country. Consequently, as Xiumeng observed, nobody leaves a phone at home because it is her school's policy. In fact, many students have nurtured strong feelings against the restriction, as Yanzi criticised her school in Shenzhen:

Although the policy is there, we all bring our phones to the school, and teachers keep one eye open and the other shut, they all know that we have our phones with us, yet they do not object. It is to say that the rule is meaningless, absolutely useless, given that mobile phones are indispensable to a modern society, [and to] any school, as long as it is

not extremely poor. In a city like ours, how can you become a modern citizen without a mobile phone? I can't understand why such a policy exists in our school [in the first place], and in my view, this regulation should be abolished sooner than later, as our society progresses further and further.

However, other students such as Fuli of the same school ratified the policy on the following basis:

Most schools in China today would not allow mobile phone use on campus. I am not against that. In my view, students would do the same regardless of the policy – those who bring a handset to school will continue to have one with them, those who choose not to use a phone will not use it. Nothing will change. But under such a policy, students will at least hold back, even if they bring one to school.

Jie of Nanshan acknowledged that the policy is rather rigid, but he asserted that mobile phone use does affect academic performance. In his view, students' capability varies in self-discipline. It is thus necessary to recognise the differences amongst the students and implement the policy accordingly. Given that some students' academic performance will surely fall if schools allow everybody to openly use a mobile phone, it is better to ban it while tacitly leaving some space for those who need to use it for various reasons. Taowen added that most students use a phone to ask their parents for money. With a mobile phone in school, they mainly play games or read online novels, which has no positive consequences for 'proper' learning. Gangliu agreed with Taowen, for mobile phone use does more harm than good to students like him, and the policy is for the benefit of the students. He also compared School

Hengshan with his previous school that did not implement such a policy: mobile phone use during class there was unconstrained, and teachers often turned a blind eye to it. It thus seems that many students and parents prefer to have a strict school, as Sin in Shenzhen maintained, his school would never say students can openly use their phone; otherwise, parents would point their fingers to the school should their children fail in their studies. That is to say, 'good' schools are supposed to be strict (Liu 2011).

#### 3.3 Mobile Phone Use at Home

Contacting parents via a phone is undoubtedly very important to some students. It is beneficial when it is used as a 'venting' machine. Yajun's mother is always ready to listen to her and, she can always grumble to her mother over the phone when she messes up an exam in Nanshan. Yanhai also enjoys a very close relationship with her mother, as she revealed, her classmates do not even know that the person she has been talking to on the phone is her mother. To her roommates, she is talking to a very good friend, a sister, or a soul mate. As Yanhai revealed, her mother suffered from a disease before, now she wants her to be as healthy as possible. Therefore, she values health over everything else. As a result, Yanhai does not face any restriction imposed by her family upon her use of mobile phone at home, and the relationship mediated through mobile phones between her and her mother is like close ones between bonding siblings.

However, talking to parents over a phone can be uncomfortable for others, and even for the same student, it can be essential to talk with one parent but not with the other. Yanhai, for example, rarely talks to her father over her phone. She cannot even remember when she talked to him last time in high school. One reason she gave for her discomfort with her father is that she visits home only once a week and he does so

once a few months, although he works in the same city. But it is mainly because they have no common ground for an affective conversation. As a result, she only responded to the questions he asked of her – no more, no less. Yanhai is not the only one reporting discontent with a parent or two. Zhenyun confided that her parents ring her only when they think she should go home either from school or outside, and that the call is always as short as 'Come Home!' – her response to the way her parents communicate with her clearly bears a sense of resentment.

Adolescent disgruntlement in the real often manifests in the virtual. Yanhai's roommate is 'addicted' to computer games. As she reported, the girl does not have a good relationship with her parents, and her brother is married already. The girl spends most of her time online playing games while others in her room are either out for shopping, watching news online, following Weibo, or chatting with friends or family. That girl does not talk much either, but she often stays up to two or three AM, fully absorbed in gaming. 'She does not know what else to do when she is free,' described Yanhai, 'as we don't know what to do when we sit [in front of a screen] for two hours or longer.'

Cyberspace does not just mirror home space; it also affects parent-child relationship. Yangcai's parents would scold him if they see him on mobile QQ. To his parents, time spent online is time taken away from study, it is time wasted. Students, however, consider those parents too conservative to see their children, according to Zhenyun of Shenzhen, being 'trendy (*chao*).' Their thoughts are so 'outdated (*luohou*),' protested the student, that she often has to think twice before leaving a signature online by borrowing words such as 'love' and 'fuck' from lyrics. Once her mother sees those words, she looks up them in an English-to-Chinese dictionary first,

and then incessant quarrels ensue. To prevent such conflicts from occurring, Zhenyun locks up her mobile phone to ensure that her mother would never be able to see anything anymore. Boyi also keeps parents away from her mobile phone. As she put: 'I find it weird when my parents sometimes check my handset for a clue about my "unusual" behaviour with my phone. Once I notice that, I secure my handset with a password.' Heng's mother in rural Hunan always browses her phone at home, checking if anybody she does not know has contacted her. If a stranger to her, she would ring that number to see what had happened. For that reason, Heng sometimes censures her mother. For instance, last time she saved her cousin's name in her handset as an initial, which her mother did not recognise until she contacted the number. Liu likes to take photos using her phone, and occasionally there are males and females together in a photo. But when somebody at home sees the photo, they would suspiciously look at her, which she feels very uncomfortable with. Qinxiao's mother often peruses her text messages stored in her handset while she thinks she is asleep.

It seems to be an unspoken rule among the students that one is not supposed to browse the information stored in another's mobile phone unless the persons concerned are very close friends. This etiquette should extend to family members, but parents often argue that they have the right to view their children's personal data. That explains why the lurking often results in abiding resentment. It also implies that parents can often get closer to their teens when they stay farther away from their screens. Or is it to say, trusting parents are more likely to win their children's hearts than are those who always track their virtual behaviours?

For sure, parents sometimes need to stay away from their own screens in order

to nurture harmonious relationships among family members. According to Yanchang in Shenzhen, his father believes mobile phones in his family have impinged on familial relationships. The student lives in school during weekdays, when he visits home on weekends and the whole family get together for dinner, he often notices that his father is staring at his little screen for stock market information, his mother checking her Weibo while he is chatting on QQ with his friends — every member in his family is immersed in his or her own digital world, a state of 'absent presence' (Aagaard 2016, 223), even though they gather only once a week. Yanchang's father thus maintains that the digital world has considerably changed the feelings family members have towards one another:

Today we can ring whenever we want. But in the past when I went to college in Beijing, I was out of touch with my parents for a long time shortly after I left home. That feeling grew stronger and stronger as I missed them more and more. Nowadays, we can't say that feeling is gone, but it is fundamentally different from the one you had when you could only meet your mother once or twice a year and what you could do was left to writing only... That sort of feeling and level of missing were so strong [that today's phone call can hardly replace].

Parents also blame digital technologies such as mobile phones when anything goes wrong with their children. As Tongzi in Shenzhen remarked: 'My parents would not admit my short eyesight is the result of my intensive reading of books, they always point to my interactions with computers and mobile phones.' As a university lecturer, Boyi's father believes mobile radiation poses a real risk to his daughter's body. But the root problem may not be the technology, as Jingwen highlighted: 'It's

not the phone that has affected me so much; it's everyday happenings that have nurtured the strong feelings of hurt.' That is to say, life events and real-life relationships leave their footprints in the student's digital life, which in turn exacerbates the problems she has in the real. While accepting her phone's side effect on her body, Jingwen argued that being classified as an ordinary class student had had an equally negative consequence for her. She does not think she is less academically capable, for she once scored very high in subjects like history. Her self-esteem is further crippled when she visits home, where her parents and neighbours all wax lyrical about how clever her neighbours' children are. Partly because of that, she has no liking for her mother and her mother is rarely nice to her either, particularly when it comes to her engagement with technology. She said whenever her secret phone rang at home, she felt the noise her vibrating handset made was so loud that she had to firmly cover it with two hands — she so feared that her mother would one day discover her mobile phone.

#### 3.4 Blogging into Being, Protecting Wellbeing

While students' interactions with mobile phones reflect certain aspects of home and school dynamics, the contents they create in cyberspace often register their ways of growing up, mark the transition from one chapter of life to another, and signal the beginning of a new relationship, or the loss of something truly important. As mobile phones allow them to go back and retrieve their personal and interpersonal histories whenever and wherever they please, the cyberspace becomes part of the remembering and perhaps also the re-making (Kleinman 2012b, 609).

In the cyberspace, those who recorded their past in bits can decide with whom to share what and for how long. A blog entry is like a diary, remarked Yajun of Nanshan, it does not just capture specific moments, but it also channels personal feelings to it:

In the first year, I had the best classmates and the best teachers, actually the best in my entire life as a student. Everybody was nice and with character. It's a class I like most. I remember I set down those moments when some of us found it too difficult to leave the class because of the Arts vs. Science division in our second year. I also recorded those moments of us bursting out laughing, and other touching events.

Yajun prefers blogging to micro-blogging on platforms such as Weibo, which reveal a desire people have today to want more and want everything fast. As she describes, Weibo is rather shallow most of the time because every entry is limited to 140 words and it is not conductive to deep reflection – what it represents is mostly gossiping. Messages conveyed on Weibo are not meant to engage people with deliberation; instead, they are impulse-driven and meant to overwhelm subscribers with the bombardment of information. Unsurprisingly, she uses blog much more than Weibo, although she admits that Weibo has justified its prevalence through its function to follow whatever she has an interest in and its capability to spread news fast. For instance, she first learned about the death of Kim Jong-il on Weibo. However, those entries have no long-lasting effects on her – they disappear from her attention span in the same lightning way as they reach her.

Yajun's view on blogging finds resonance in others'. Yanhai used to register her life experiences every day. When access to the Internet was limited, she 'wrote' on her mobile phone and she could type reasonably fast. She even praised her phone's

capability to automatically predict words and provide options for her to choose from. Her mobile screen was small, yet she could update her feelings and thoughts to her 'enormously large' blog space on NetEase, where she kept those entries, or more accurately, her inner self, open for a limited period of time before she locked them up.

As students leave more of or about themselves online, they become increasingly concerned about safety and privacy. To Yajun, the diaries she wrote years ago are like the finest wine she brewed — the longer she keeps them, the more value they accrue. As time goes by, said the girl, she feels better every time she opens them. As the value of what she wrote grows, she is less willing to share it with others, and sometimes she feels it is herself in cyberspace. Yajun does not want others to know too much about her either. If too much of her past becomes transparent, she feels like 'running naked (*luoben*).' So, she prefers to hide it away, partly because she thinks her thoughts formed years ago are too naïve. But primarily, it is because of her unease with every detail of her inner history becoming available to anybody. In her view, once others know all of her thoughts, they know how to control her. So, it is better to keep it safe with a password.

But password-protected content online is not 100% safe. Yanhai harbours a concern that all her diaries written over the years may vanish if NetEase collapses. She is rightly aware that online companies can go bankrupt easily. Even if the company is healthy enough, pointed out Yanhai, people out there can still break into her personal space, for she knows some who can successfully decode passwords to QQ accounts. 'It all depends on technology,' she emphasised, 'even if you can't do it yourself, you can always hire someone who can.' Yanhai's point is not groundless. As she made the comment, news reports were warning users of QQ, particularly parents

with children studying abroad, against false requests in texts from 'their children' in need of financial help.

To address the perceived risks, Yanhai employs multiple levels of security measures to safeguard her safety and privacy. Consequently, almost all functions in her mobile handset require a password. When asked if she would mind others borrowing and browsing her phone, she uttered a few words with some delightful confidence: 'I don't mind.' Her openness, however, does not stem from her trust in others' etiquette or the fact that she has nothing private inside her phone. Instead, she has locked up whatever she can! As she continued: 'You can borrow my phone to make a call, but you can't see my messages or directory, because they are all guarded by a password.'

However robust a password is, as Turkle commented, online data are likely to be always somewhere and the persistence of digital contents can sometimes provide written proofs of one's misdoing, despite they represented only 'spur-of-the-moment' feelings (2011, 258). Tapscott (2009, 7) also warned, those impulsive bits may come back to 'bite' those in question even years, if not decades, later. Although the students interviewed are largely unaware of such a risk, they fear the leakage of text messages to less remote others in terms of time and space – teens really care how peers view them online and off.

Text messages are sensitive because sometimes they stand for intimate relationships. Pin of Shenzhen keeps those messages he sent to and received from his ex-girlfriend for a long time. Whenever he reviews the archive of texts, he thinks of their time together; and when he comes across her name on the screen, he misses her. Since that was his first time in love with a girl, he recollected that relationship with a

strong sense of loss. As they are still studying in the same school and of the same grade, they often bump into each other on campus. Those moments to Pin are extremely embarrassing. In appearance, they pretend to know almost nothing about each other, as he said: 'It's like she is passer-by X, and I am passer-by Y. We have no eye contact, like total strangers, even though we promised each other we would still be friends.' But, to Pin, she is not a stranger, and those text messages she sent him can attest that. Her texts still keep her alive in his heart. He is trying to forget her, but the text messages she sent him are an indelible part of the relationship that is gone. In that sense, cyberspace is no longer a virtual space – it underlies a real life that people are not willing to accept, and the virtual becomes even more real.

Other students keep their text messages private because they are associated with sweet memories. Yanzi got to know her boyfriend more and better via texting. They met in Nanshan, but at the beginning, they knew very little about each other and it was rather inconvenient to talk in person. But the phone helped her strengthen the bond with her boyfriend in real life by forging a link in the virtual, and it enabled her to say something rather disconcerting to express face to face, and occasionally, they stayed attuned to each other till very late at night.

Text messages can be more than sweet; they also help turn a public relationship private. Jingwen is alive to how her classmates view her. She feels she is always under a spotlight. Even when we met up for the interview, she asked me to enter a quiet classroom first — she must avoid the unnecessary 'scandal' of being with a male stranger. In her class, as she described, there is one publicly recognised handsome guy. Although she said she considers him as a buddy, a close friend, and she hangs out with him quite often, her classmates all treat them 'as if something has

happened.' She also happens to sit in front of him. Because of the tittle-tattle, she decided to keep a distance from him, in public of course, like the way she avoided entering the classroom together with me. However, she feels the 'boy' is innocent and it is unfair to stay away from him. Fortunately, she could send him text messages, and for long, they refrained from conversing with each other except by texting. However, their virtual communication had an effect on their real interactions — she could not stop turning to catch a glimpse of him until the male's deskmate one day decided to count the number of times she turned her head in a single class. It was reported to her that the number was at least 20, which certainly, in her opinion, upset the counting classmate because she had ignored him.

#### 4.0 Conclusion

As numerous accounts in the study revealed, students' physical, emotional, and intellectual interactions with mobile phones render the technology mesmeric yet fearful, necessary yet disquieting. Students praised how much their phones could do *for* them. However, they also expressed deep concerns over what the technology could do *to* them, such as mobile radiation to their body and the harms electronic reading could do to their eyesight and academic performance in school.

Teens suffuse the cyberspace afforded by their mobile phones with emotional values (see also Horst and Miller 2006). For some, a mobile phone is an object of desire, as it marks the beginning of a relationship. Jingwen's secret mobile phone meant a great deal to her, but she could not use it at home because of her mother. Just as she kept her handset secret at home, she did what she could to conceal her relationship with a handsome guy in school. Yet the 'placeless space' (Sandvig 2013, 101) created by her phone was full of amatory possibilities. The bond between Yanzi

and her boyfriend was strengthened via their mobile phones too, particularly at the early stage of their relationship. When they chatted late into night, they were exchanging not just texts; through their mobile phones, they saw themselves as entering each other's soul and holding each other's heart in their hands. For others, a mobile phone represents an object of loss, as it punctuates a romantic relationship. Pin's mobile phone reminded him so powerfully of his time with his ex-girlfriend that he kept her text messages alive for a long time, and every time he came across her name stored in his handset, he saw a shadow of her flicker past, just as Annalee Newitz' laptop refreshed her memory of the love she had with a hacker (2007, 90).

But the loss in adolescent life can sometimes find 'emotional repair' (Strohecker 2007, 27) in cyberspace. Yajun found immeasurable solace in her mobile conversations with her mother, to whom she could throw all the frustrations she had in her failed exams. According to Turkle (2007), both things and people are treated as objects in psychoanalysis. When people lose something important or someone they love, they may be able to find that object again in themselves. Yanhai's roommate seemed to have lost her bond with her family. But she, as Yanhai related, appeared to be successful in finding the lost affection she so needed within herself and inside her cyberspace. As Freud poetically wrote: 'the shadow of the object fell upon the ego' (as cited in Turkle 2007, 9), which means, in Turkle's words: 'When objects are lost, subjects are found' (2007, 9). It means, the cyberspace can help cultivate the person by changing the subjectivity of the person (Kleinman 2012a, 1551).

The feelings teens often pour into their phones are inseparable from the thoughts they develop in their relationships with the 'evocative' technology (Turkle 2007). By recording and re-making their lives in cyberspace, students such as Yanhai

and Yajun often felt at one with their blog entries while reading, sharing, and acting upon what they had built. When that happens, the virtual catalyses adolescent growth and scaffolds the construction of the real – when students learn to live with, or in, their cyberspace, as Buckingham (2008, 4–6) and boyd (2008, 128–29) described, they are shaping and re-shaping themselves into being. When mobile phones provide a placeless space for adolescent emotion and intellect to cohabit and interact, they become 'objects of passion and reason' – the former is often viewed as illogical, emotional, and non-scientific; whereas the latter normally associated with science and knowledge (Turkle 2007, 6). At that point, mobile phones are no longer objects of simple instrumental value; they become what Turkle called 'thought companions' (2007, 5). In other words, teens do not just love the technology they have or live with, they also think with the technology they love or play with.

Given the emotional, intellectual, and psychological gains of adolescent engagement with mobile phones, the restrictive measures adults often adopt are worth re-consideration or further investigation. As shown earlier, the reality of teens' engagement with their phones defies technological determinism (Aagaard 2017, 1128). Mobile phone use on campus does not affect *all* students in the same way (see also boyd 2014, 15–16; Przybylski and Orben 2017; Odgers 2018), and the wholesale ban on their use of the technology risks missing the opportunity for adults to meaningfully engage with those 'problem' students who in fact make real life problems visible online while they become less and less visible, if not socially 'dead' (Yang and Kleinman 2008), offline.

As boyd argued, 'the internet mirrors, magnifies, and makes more visible the good, bad, and ugly of everyday life' (2014, 24). When students like Jingwen and

Yanhai's classmate are hurting offline, they demonstrate their real, often unvoiced, hurt online. As teachers and parents try hard to shield young people from either real or perceived risks associated with mobile phone use, they also become blind to the light mobile phones shed on the social and educational fault lines that affect the very teens they care about (boyd 2014, 125). In the long run, they may let go of the opportunity to articulate and champion an alternative, that is to cultivate what medical anthropologist Arthur Kleinman called 'the moral responsibility, emotional sensibility, and social capital of the relationship' through the practices of care giving and receiving, which speak to the heart of 'who we are and what we can offer, or endure' (2012a, 1551).

While the Internet makes conventional segregation more difficult, teens from well-to-do backgrounds are more likely to be exposed to the problems their less fortunate counterparts seriously struggle with. If they, as many adults do, choose to ignore or avoid, it will no longer send shivers down an outsider's spine, when socially isolated students like Janelle in Peter Hessler's *River Town* committed suicide and her classmates still laughed (2001), and when people simply shouted eagerly as they ran over deadly car accidents in China: '*Sile meiyou? Sile meiyou?*' – 'Is anybody dead? Is anybody dead?' (2001). To change that sort of indifference so widespread in our society today, we should perhaps welcome mobile phones into adolescent lives and make schooling more 'adventurous' and schools less 'risk-averse' (C. Davies 2017, 260), which will help teach young people to be more 'attending, enacting, supporting, and collaborating' (Kleinman 2012a, 1151), in other words, to be more present and thus fully human when they learn to stand in solidarity with those in great need (Kleinman 2009). Otherwise, we are more likely to be demeaned and the teaching profession transmuted into something that is hollowed of its (stated) core values, such

as diversity, inclusion, being human, and doing good.

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#### References

Aagaard, Jesper. 2016. "Mobile Devices, Interaction, and Distraction: A Qualitative Exploration of Absent Presence." *AI & SOCIETY* 31 (2). Springer London: 223–31. doi:10.1007/s00146-015-0638-z.

——. 2017. "Breaking down Barriers: The Ambivalent Nature of Technologies in the Classroom." *New Media & Society* 19 (7): 1127–43. doi:10.1177/1461444816631505.

Archambault, Julie Soleil. 2011. "Breaking up 'because of the Phone' and the Transformative Potential of Information in Southern Mozambique." *New Media & Society* 13 (3): 444–56. doi:10.1177/1461444810393906.

Benkler, Yochai. 2006. *The Wealth of Networks: How Social Production Transforms*Markets and Freedom. New Haven; London: Yale University Press.

- Bowden, John. 1996. "Phenomenographic Research Some Methodological Issues."

  Edited by Gloria Dall'Alba and Biörn Hasselgren. *Reflections on Phenomenography: Towards a Methodology?* Göteborg: Acta Universitatis Gothoburgensis.
- boyd, danah. 2008. "Why Youth ♥ Social Network Sites: The Role of Networked Publics in Teenage Social Life." In *Youth, Identity, and Digital Media*, edited by David Buckingham, 119–42. Cambridge, MA: MIT Press.
- ——. 2014. *It's Complicated: The Social Lives of Networked Teens*. New Haven: Yale University Press.
- Bromley, Hank. 1997. "The Social Chicken and the Technological Egg: Educational Computing an the Technology/Society Divide." *Educational Theory* 47 (1): 51–65. doi:10.1111/j.1741-5446.1997.00051.x.
- Bryman, Alan. 2008. *Social Research Methods*. 3rd ed. Oxford: Oxford University Press.
- Buckingham, David. 2007. Beyond Technology: Children's Learning in the Age of Digital Culture. Cambridge; Malden, MA: Polity.
- ——. 2008. "Introducing Identity." Edited by David Buckingham. *Youth, Identity, and Digital Media*. Cambridge, Mass.: MIT Press.
- Davies, Chris. 2017. "Putting Technology in the Hands of Learners: Perspectives on Formal Education's Initiatives around One-to-One Digital Technologies."

  \*\*Oxford Review of Education\*\* 43 (3). Routledge: 255–60. doi:10.1080/03054985.2017.1304919.

- Davies, S.C., F. Atherton, C. Calderwood, and M. McBride. 2019. "United Kingdom Chief Medical Officers' Commentary on 'Screen-Based Activities and Children and Young People's Mental Health and Psychosocial Wellbeing: A Systematic Map of Reviews'." https://www.gov.uk/government/publications/uk-cmo-commentary-on-screen-time-and-social-media-map-of-reviews.
- Dickson, K, M Richardson, I Kwan, W MacDowall, H Burchett, C Stansfield, G Brunton, K Sutcliffe, and J Thomas. 2019. "Screen-Based Activities and Children and Young People's Mental Health: A Systematic Map of Reviews." London. http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=3748.
- Farmer, Paul. 2004. "An Anthropology of Structural Violence." *Current Anthropology* 45 (3): 305–25. doi:10.1086/382250.
- Feenberg, Andrew. 1992. "Subversive Rationalization: Technology, Power and Democracy." *Inquiry* 35 (3/4): 301–22. doi:10.1080/00201749208602296.
- ———. 2003. "Modernity Theory and Technology Studies: Reflections on Bridging the Gap." Edited by Thomas J Misa, Philip Brey, and Andrew Feenberg. Modernity and Technology. Cambridge: MIT Press.
- Foucault, Michel. 1990. The History of Sexuality. London: Penguin.
- Francis, Hazel. 1996. "Advancing Phenomenography Questions of Method." Edited by Gloria and Hasselgren Dall'Alba Biörn. *Reflections on Phenomenography:*Toward a Methodology? Göteborg: Acta Universitatis Gothoburgensis.
- Fu, Jun. 2018. "Chinese Youth Performing Identities and Navigating Belonging Online." *Journal of Youth Studies* 21 (2): 129–43.

doi:10.1080/13676261.2017.1355444.

Herring, Susan C. 2008. "Questioning the Generational Divide: Technological Exoticism and Adult Constructions of Online Youth Identity." Edited by David Buckingham. *Youth, Identity, and Digital Media*. Cambridge, MA: The MIT Press.

Hessler, Peter. 2001. River Town: Two Years on the Yangtze. London: John Murray.

- Horst, Heather A, and Daniel Miller. 2006. *The Cell Phone: An Anthropology of Communication*. Oxford; New York: Berg.
- Kleinman, Arthur. 2009. "Caregiving: The Odyssey of Becoming More Human." *The Lancet* 373 (9660): 292–93.
- ——. 2012a. "Caregiving as Moral Experience." *The Lancet* 380 (9853): 1550–51. doi:10.1016/S0140-6736(12)61870-4.
- ——. 2012b. "Culture, Bereavement, and Psychiatry." *The Lancet* 379 (9816): 608–9. doi:10.1016/S0140-6736(12)60258-X.
- Ling, Richard Seyler. 2012. Taken for Grantedness: The Embedding of Mobile

  Communication Into Society. Cambridge, Massachusetts; London, England: The

  MIT Press.
- Liu, Fengshu. 2011. "The Norm of the 'good' Netizen and the Construction of the 'Proper' Wired Self: The Case of Chinese Urban Youth." *New Media & Society* 13 (1): 7–22. doi:10.1177/1461444809360701.

Livingstone, Sonia, and Magdalena Bober. 2006. "Regulating the Internet at Home:

- Contrasting the Perspectives of Children and Parents." Edited by David Buckingham and Rebekah Willett. *Digital Generations: Children, Young People, and New Media*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Marton, F. 1994. "Phenomenography." Edited by T Husen and T N Postlethwaite. *The International Encyclopedia of Education*. Oxford: Pergamon.
- McAdams, Dan P. 1993. The Stories We Live by: Personal Myths and the Making of the Self. New York: Guilford Press.
- Micheli, Marina. 2015. "What Is New in the Digital Divide? Understanding Internet

  Use by Teenagers from Different Social Backgrounds." *Communication and Information Technologies Annual* 10: 55–87. doi:10.1108/S2050-206020150000010003.
- Newitz, Annalee. 2007. "My Laptop." Edited by Sherry Turkle. *Evocative Objects: Things We Think With*. Cambridge, MA: MIT Press.
- Odgers, Candice. 2018. "Smartphones Are Bad for Some Teens, Not All." *Nature* 554 (7693): 432–34. doi:10.1038/d41586-018-02109-8.
- Orben, Amy, and Andrew K. Przybylski. 2019. "The Association between Adolescent Well-Being and Digital Technology Use." *Nature Human Behaviour*. Springer US. doi:10.1038/s41562-018-0506-1.
- Oudshoorn, Nelly, and T J Pinch. 2003. *How Users Matter: The Co-Construction of Users and Technologies*. Cambridge, Mass.: MIT Press.
- Przybylski, Andy, and Amy Orben. 2017. "Social Media Is Nothing like Drugs, despite All the Horror Stories." *The Conversation*, June 18.

https://theconversation.com/social-media-is-nothing-like-drugs-despite-all-the-horror-stories-79382.

- Säljö, Roger. 1996. "Minding Action --- Conceiving of the World versus Participating in Cultural Practices." Edited by Gloria Dall'Alba and Biörn Hasselgren. *Reflections on Phenomenography: Toward a Methodology?* Göteborg: Acta Universitatis Gothoburgensis.
- Sandvig, Christian. 2013. "The Internet as Infrastructure." Edited by William H

  Dutton. *The Oxford Handbook of Internet Studies*. Oxford: Oxford University

  Press.
- Selwyn, Neil. 1999. "Why the Computer Is Not Dominating Schools: A Failure of Policy or a Failure of Practice?" *Cambridge Journal of Education* 29 (1): 77–91. doi:10.1080/0305764990290106.
- 2007. "Plus ca Change, Plus c'est La Meme Chose Considering the Probable Future of Education Technology." Edited by David W Kritt and Lucien T Winegar. Education and Technology: Critical Perspectives, Possible Futures.
   Lanham: Lexington Books.
- ——. 2011a. Schools and Schooling in the Digital Age: A Critical Analysis.

  London: Routledge.
- ——. 2011b. "Technology, Media and Education: Telling the Whole Story."

  \*\*Learning, Media and Technology 36 (3): 211–13.\*\*

  doi:10.1080/17439884.2011.572977.

Selwyn, Neil, Selena Nemorin, Scott Bulfin, and Nicola F Johnson. 2017. "Left to

- Their Own Devices: The Everyday Realities of One-to-One Classrooms." *Oxford Review of Education* 43 (3). Routledge: 289–310. doi:10.1080/03054985.2017.1305047.
- Strohecker, Carol. 2007. "Knots." Edited by Sherry Turkle. *Evocative Objects: Things*We Think With. Cambridge, MA: MIT Press.
- Tapscott, Don. 2009. Grown Up Digital: How the Net Generation Is Changing Your World. New York: McGraw-Hill.
- Thomas, Kevin, and Blanche W. O'Bannon. 2015. "Looking Across the New Digital Divide: A Comparison of Inservice and Preservice Teacher Perceptions of Mobile Phone Integration." *Journal of Information Technology for Teacher Education* 23 (4): 561–81.
- Turkle, Sherry. 1995. Life on the Screen: Identity in the Age of the Internet. New York: Simon & Schuster.
- ——. 2007. Evocative Objects: Things We Think With. Cambridge, MA: MIT Press.
- ——. 2011. Alone Together: Why We Expect More from Technology and Less from Each Other. New York: Basic Books.
- Uljens, Michael. 1996. "On the Philosophical Foundations of Phenomenography."

  Edited by Gloria and Hasselgren Dall'Alba Biörn. *Reflections on Phenomenography: Toward a Methodology?* Göteborg: Acta Universitatis Gothoburgensis.
- Wajcman, Judy. 2008. "Life in the Fast Lane? Towards a Sociology of Technology and Time." *The British Journal of Sociology* 59 (1): 59–77. doi:10.1111/j.1468-

4446.2007.00182.x.

- Waytz, Adam, and Kurt Gray. 2018. "Does Online Technology Make Us More or Less Sociable? A Preliminary Review and Call for Research." *Perspectives on Psychological Science* 13 (4): 473–91. doi:10.1177/1745691617746509.
- Xiang, Biao. 2007. "How Far Are the Left-behind Left behind? A Preliminary Study in Rural China." *Population, Space and Place* 13 (3): 179–91. doi:10.1002/psp.437.
- Xiao, ZhiMin. 2013. "'You Are Too out!': A Mixed Methods Approach to the Study of 'Digital Divides' in Three Chinese Senior Secondary Schools." Durham University. http://etheses.dur.ac.uk/8456/.
- Yang, Lawrence Hsin, and Arthur Kleinman. 2008. "Face' and the Embodiment of Stigma in China: The Cases of Schizophrenia and AIDS." *Social Science & Medicine* 67 (3): 398–408. doi:10.1016/j.socscimed.2008.03.011.