

# **Mobile teens in Taiwan**

**Yi-Fan Chen<sup>1</sup>**

**“Mobile 2.0: Beyond Voice?”**

**Pre-conference workshop at the International Communication Association (ICA)**

**Conference**

**Chicago, Illinois**

**20 – 21 May 2009**

---

<sup>1</sup> Assistant Professor (Ph.D.)  
Department of Communication and Theatre Arts  
College of Arts and Letters  
Old Dominion University  
3000 Batten Arts & Letters  
Norfolk, Virginia, 23529, USA  
y5chen@odu.edu

## **Abstract**

*Research in Japan (Ito, 2005), Norway (Ling, 2004) and United Kingdom (Green 2001) has shown that parents use a mobile phone to remotely monitor children's activities and teens who live at home use the mobile phone to gain their freedom from parental control. On the other hand, Chen and Katz (2009) find that American college students show more desire to contact their parents than their parents wish to keep in touch with them.*

*Although Taiwan's mobile phone penetration rate is among the world's highest, research in mobile media uses among Taiwanese teens remains scarce. This study conducted four preliminary focus group interviews in June 2008 in Taiwan to understand the mobile media use pattern among Taiwanese teens. A total of 25 teens were participated in this study.*

*The result showed that Taiwanese teen's micro-coordination (Ling & Yttri, 2002) with family members via the mobile phone was as important as social networking with their peers. Except for one participant, all of the participants who owned mobile phones reported that they answered their parents' phone calls all the time. This finding seemed to contradict to previous research findings (Ling, 2004; Green, 2001) that teens used the mobile phone as a "resistance" to their parental control. The participants always kept themselves available for their family mobile phone connection.*

## **Introduction**

The mobile phone has gained popularity among the teen in the world. Teens use their mobile phones in anytime and anyplace to maintain their social relationships as well as to have fun (Castells, Fernandez-Ardevol, Qiu, & Sey, 2006). In other words, the mobile phone touches various aspects of the teen's everyday social life (Katz & Aakhus, 2002; Ling, 2004). Studies (e.g., Green, 2003; Ling & Yttri, 2002) have reported that teens use mobile phones to build their personal identities, their group identities, and their social networks. Teens are also found to favor the entertainment functions that the mobile phone provides to them. Castells et al. (2006) noted that entertainment is also an important component of American teens'<sup>2</sup> mobile phone usage. Beside the oral and text communication, research reported that teens use their mobile phones to download rang-tones and games.

Researchers find that information and communication technologies (ICTs) have the potential to increase children socialization from family toward an outside world (Arnett, 1995; Meyrowitz, 1985). Early studies in mass media effects noted that people, especially children, learned through and modeled behavior from the television (Bandura, 1967, 1977, 1986, 1994). Studies show that the mobile phone is mainly used to connect between people with intimate relationships (de Gournay, 2002; Ling, 2004). Holmes and Russell (1999) stated the mobile phone has moved teens away from the sphere of influence of traditional socialization structures (e.g., home, educational system, and mass media) toward to a new experience of everyday social life. As other studies in ICTs (e.g., the television, the Internet) have showed that the ICTs have speeded up teens' socialization process toward their peers and societies (Arnett, 1995; Meyrowitz, 1985), the mobile phone also enhances teens' sense of independence from their family toward to their peers (Green, 2003; Ling & Yttri, 2002, 2006). Moreover, mobile phone young users are often blamed to create problems within families as well as societies (Ito & Okabe, 2006; Matsuda, 2005). Studies reported that teens use the mobile phone at the dinner table (Ito & Okabe 2006; Matsuda, 2005) and in the bedroom (Cooper, 2001; Haddon, 2004; Ito, 2005). Teens also changed the traditional public space to be their private own space via uses of the mobile phone (Ling, 2004; Ito & Okabe, 2006).

## **Significance of study**

ICTs have always been a history of concerns about the effect on children (Gerbner, Gross, Morgan, & Signorielli, 1980, 1982, 1986). On the other hand, some ICTs have been perceived to promise a better option for future generation (Haddon, 2004). Researchers (e.g., Haddon, 2004; Ling & Yttri,

---

<sup>2</sup> The data was draw from a TNS 2003 survey data in uses of mobile phones by children 6-14 years in the United State, 2003.

2002; Castells et al., 2006) stated that the teen is one of noticeable groups to use of the mobile phone. Not only they are growing up with mobile phones together, but also they create their special uses of the mobile phone. Combining the mobile phone with the teen together, the simple functional understanding of the mobile phone is important for the teen's future life.

Taiwan is one of the countries that had high mobile phone penetration rates. In 2001, Taiwan had a mobile phone penetration of 96.9% according to International Telecommunication Union (ITU) statistics (Smith, 2008). In 2003, the annual report from the US Federal Communications Commission reported that the mobile phone penetration rate was 107% in Taiwan compared with 49% in US, 60% in Japan, and 88% in Italy (US mobile phone penetration, 2003). In 2006, the mobile phone penetration rate in Taiwan had reached 111% (Philippines telecoms, 2006). Many Taiwanese have more than one mobile phone. Between 2002 and 2007, Taiwan had the highest mobile phone penetration in the world (Smith, 2008). In 2002, Taiwanese mobile phone penetration had surpassed 100%. Although Taiwan's mobile phone penetration rate is among the world's highest, research in mobile media uses among Taiwanese teens remains scarce. Teen uses of the mobile phone (e.g., Hadden, 2004; Ling, 2004) around the world have been documented. However, there was a lack of studies that investigated teen uses of the mobile phone in Taiwan.

### **Mobile phone adoption**

A Japanese survey<sup>3</sup> found that 64.3% of mobile phone teen owners reported that they asked their parents to buy them a mobile phone. 21.4% of them reported that their parents insisted to give them one even they did not necessarily want one. Other reasons for them to own a mobile phone included "I was given one as a gift by someone other than my parents" and "I bought one myself" (Miyaki, 2006). Nomura Research Institute in Japan reported that 44.3% of Japanese male teens had a mobile camera-installed phone and 45.2% of Japanese female teens had a mobile camera phone in 2003<sup>4</sup>. Teens had the highest mobile camera phone ownership in Japan. In addition, the teen was also found to be the most frequency of the mobile camera phone users (Okada, 2003).

In UK, Madell and Muncer<sup>5</sup> (2004) found that 86% UK teens owned a mobile phone. Female teens (89%) had higher mobile phone ownership than male teens (82.3%). In their findings, UK teens also had higher mobile phone ownership than adults. "No need one" (51.3%) and "have not got round to buying one yet" (27.1%) were the first two reasons that UK teens did not own a mobile phone. Cost

---

<sup>3</sup> The Japanese survey included 497 teens aged 10-14 year olds and their parents. It was conducted in September 2000.

<sup>4</sup> In 2003, the overall mobile camera phone ownership in Japan was 26.1%.

<sup>5</sup> This survey included 1,340 secondary-school students aged 11-18 from the North-East England.

considerations (i.e., “cost of handset too great” (15%) and “cost of line rental too great” (11.8%)) were placed the third and fourth reasons that those teens did not have a mobile phone.

In the US, a PEW 2004 survey<sup>6</sup> found that 45% of the American teens had mobile phones and 33% of them used the Short Message Service (SMS). American girls (i.e., 49%) were found to be more likely than American boys (i.e., 40%) to own a mobile phone. Younger teens had less mobile phone ownership than older teens. American urban teens (i.e., 51%) were more likely to own a mobile phone than rural teens (i.e., 35%) (Lenhart, Madden, & Hitlin, 2005).

*Safety and security.* Research findings of mobile phone adoption showed that safety and security are the most important reasons that parents to justify the purchase of a mobile phone for their children (de Gournay, 2002; Haddon, 2004; Ling & Yttri, 2002; Nafus & Tracey, 2002; Oksman & Rautiainen, 2003). Moreover, some Finnish parents also considered the mobile phone said that the mobile phone was necessary for their teens to become “mobile citizens.” Teens sometimes reported that they surprised to have a mobile phone from parents (Oksman & Rautiainen, 2003).

In a study conducted by the Carphone Warehouse and the YouGov<sup>7</sup> (2006), three in four UK teens reported that their parents bought them a mobile phone. The UK teen lived in a world where almost 3 quarters of them owned their first mobile phones by the age of 11. More than a half of the teen reported that their parents allowed them to stay later (53%) and gave them more freedom (59%) after they owned mobile phones. Owning a mobile phone made 80% of the teens feel safer when they were on the move. Moreover, girls (i.e., 89%) reported that owning a mobile phone made them to feel safer than boys (i.e., 72%).

*Identity and fashion.* Green (2003) stated that the mobile phone was evaluated on both functional and aesthetic grounds by the teen. When the teen search a mobile phone to own, they might seek for a special branding, special features, and styles. Moreover, many researchers (e.g., Green, 2003) argued that fashion is another important element for the teen to adopt a mobile phone than another. Green<sup>8</sup> (2003) reported that all of the teens had extensive knowledge of the mobile phone styles and design. The Carphone Warehouse and the YouGov’s study showed that the most important factor of choosing a mobile phone for UK teenage boys was functionally and for UK teenage girls was style (The Carphone Warehouse, 2006).

---

<sup>6</sup> The Parents & Teens 2004 Survey sponsored by the PEW Internet and American Life Project was an American national telephone interview project. 1,100 teen aged 12 to 17 years old and their parents participated in the study. It was conducted between October 26 and November 28, 2004.

<sup>7</sup> The survey included 1,256 teens aged 11-17 year olds who owned a mobile phone from the UK and was conducted in between July 20 and 23 2006.

<sup>8</sup> This was an interview study and was conducted in South London with high school students whose ages ranged from 11 to 18. It was a part of a research project entitled “The Socio-technical shaping of Mobile, Multimedia Person Communications” that had been carried out at the University of Surrey in early 2000s.

Similar results were found in a Norway study. In Norway, Skog<sup>9</sup> (2002) found that there was a small difference between male teens (45%) and female teens' (41%) mobile phone ownership. Female teens and male teens both prefer a mobile phone that is ease to use (79%). The female teen agreed more that the design (female teens 55%; male teens 50%), the ring tone (female teens 50%; male teens 43%), and color (female teens 17%; male teens 6%) of the mobile phone was important than the male teen. On the other hand, the male teen (51%) reported mobile phone brand was more important than the female teen (30%). Skog (2002) concluded that the male teen focused on the technical facilities of the mobile phone and the female teen more cared about the performance facilities of the mobile phone (see figure 1).

-----  
Figure 1 about here  
-----

Moreover, studies (e.g., Miyaki, 2006) found that the mobile phone adoption among the teens seemed to relate with a desire for socialization with peers. Miyaki (2006) found that the Japanese mobile phone teen users agreed more in statements such as they “want to make a lot of new friends,” “belong to a particular clique of friends,” “can make friends with anybody,” or “occasionally argue with friends” than nonusers. In Finland, Oksman and Rautiainen (2003) reported that teens bought a mobile phone because a desire to connect with their friends.

#### Mobile phone usage among teens

The teen used their mobile phones in different activities. Networking found to be the primary reason to use the mobile phone. Much research has reported that teens use both voice and text communication via the mobile phone to contact with their family and close friends (Ling, 2004). Studies (e.g., Ling & Yttri, 2002; Skog, 2002) found that many European teens preferred to use SMS more than voice function at their mobile phones. An example was Ling and Yttri (2002) noted that sending an SMS message is more important for maintaining social relationships than for coordinating an arrangement for Norwegian teens. SMS is also very common in Finland. Finnish youth pay more money for their SMS than for their voice phone calls (Kasesniemi & Rautiainen, 2002). Similar attention is emerging in the UK teen (The Carphone Warehouse, 2006). The Carphone Warehouse and the YouGov's study (2006) found that UK youth actively used their SMS. The study also found that SMS activity declines with age in the UK. Recent studies (e.g., Kurita, 1999, as cited in Okada, 2005) also show that teens send and receive

---

<sup>9</sup> This random survey study was conducted in Spring 1999 in Norway, forcing on teens (9<sup>th</sup> graders) and their teachers. The sample studied consisted of seventy schools including 2,979 teens. Among the teens sampled, 84% responded.

visual images from their camera phones. After communication activity in the device, downloading games and downloading ring-tones seem to be next popular activities among teens (Castells et al. 2006).

Skog (2002) reported the Norwegian teen reported several important reasons for them to use mobile phones. “Easy to reach” (female teens 75%; male teens 68%) and “SMS” (female teens 75%; male teens 62%) were the most important factors for teens’ mobile phone uses. Pastime and WAP facilities were more important for the male teen than for the female teen. In conclusion, Skog (2002) reported that the female teen was more oriented towards the social aspects of mobile phone use, whereas the male teen focused on the technical functions. The researcher special noted that all teens were strongly underline the social and communicative functions of the mobile phone (see figure 2).

-----  
Figure 2 about here  
-----

In 2000, a Japanese teen mobile phone usage survey showed that the teen had more after-school activities, commuted to school by public transportations, and attended the private school were more likely to use the mobile phone. Study found that the teen intentions to use the mobile phone were different by gender and grade level. Overall, the most important reason for the teen to use their mobile phone was “in emergencies.” However, female teens intended use for the purpose of calling home (e.g., “I am coming home.” “Come pick me up.”) was surpassed “in emergencies.” Moreover, female teens (i.e., 57.7%) reported that they had a strong urge to send and receive SMS than male teens (i.e., 36.7%) and also to customize ring tone melodies (54.0% of female teens vs. 43.0% of male teens). Overall, female teens showed more interest in chatting with friends via their mobile phones and decorating the surface of the mobile phone than male teens (Miyaki, 2006).

In the UK, 91.9% of the teen reported “making calls” and 89.4% of the teen reported “text message” when asked their purposes to use their mobile phones. The third frequent use of their mobile phones was “receiving calls” (80%). Gender differences were found in sending text messages<sup>10</sup> but not in either making<sup>11</sup> or receiving calls<sup>12</sup>. In the survey, 14% of the teen reported that they used their mobile phones to “other purpose.” These included playing games or getting new ring tones (Madell & Muncer, 2004).

The Carphone Warehouse and the YouGov’s recent survey (2006) found that on average UK teens made or received 3.5 calls a day; whereas on average UK teens sent or received 9.6 text messages a day. Studies (e.g., Green, 2003; Ling & Yttri, 2002) reported teens use mobile phones for “micro-

---

<sup>10</sup> Males 84.8%, females 93.8%;  $\chi^2=23.366$ ,  $df=1$ , two-tailed  $p<0.0005$

<sup>11</sup> Males 92.6%, females 91.3%;  $\chi^2=0.596$ ,  $df=1$ , two-tailed  $p>0.05$

<sup>12</sup> Males 78.7%, females 81.4%;  $\chi^2=1.287$ ,  $df=1$ , two-tailed  $p>0.05$

coordination<sup>13</sup>,” is very similar as ways that the adults did. The teens used the mobile phone to manage their daily activities, such as to ask their parents to pick them up after school activities or to interact with their peers to arrange activities.

In UK, the study conducted by the Carphone Warehouse and the YouGov (2006) reported that 36% of girls and 17% of boys selected the mobile phone to be the most important electronic items among 5 electronic items (i.e., the mobile phone, the Internet, the television, personal music players, and the game) for them. When asked their uses of the mobile phone, 74% of the teens reported to send or receive texts, while 14 of them reported to make or receive calls, and 12% of them said to play games. Those teens created their special mobile behavior among peers. For example, “locking off” someone’s calls mean that the receiver’s phone ringed but the receiver did not want to speak to the sender. In stead of silencing the ring, the receiver just dropped the call. The teen could say “someone rings me but I locked the person off.” “Flashing” was making a call but ending it before the other person picked it up. Teens used it when they did not have credit on their mobile phones. They “flashing” someone and waited the receiver called them back.

On the other hand, Johnsen (2003) and Taylor and Harper (2003) argued that SMS messages have become a “gift” because teens valued their SMS messages to their friends as a symbol of affection and in return the receiver cherishes the emotional significance that was embedded in their SMS. Teens could store their SMS messages in their mobile phone memory as a visual aid for recalling past thoughts, feelings and knowledge that their friendships were cherished by someone else (Taylor & Harper, 2003). Johnsen (2003) commented that through the process of sending and receiving SMS messages, even though context of the messages might not male sense to an outside observer, both teen users strengthened their social network. Kasesniemi and Rautiainen (2002) reported that teens in Finland stored their important SMS messages in their mobile phones. If there was not enough memory on their phones, they copied their message from SMS into their calendars, diaries or notebooks especially designed for collecting SMS messages. Kasesniemi and Rautiainen (2002) and Ling and Yttri (2002) reported that youth in the Nordic countries used their SMS to send chain messages to their friends. Similar to the use of forwards in e-mail, the chain SMS messages included jokes, short poems, and wishes. In Japan, youth has SMS good night wishes (Heller, 2003).

Finally, Oksman and Rautiainen and their research team (2003) conducted a series research between 1997 and 2001 to understand the Finnish teen mobile phone use patterns. Their data was drawn interviews, observation in youth events, photographs, SMS materials, and observation diaries written by

---

<sup>13</sup> “Micro-coordination” focused on the role of the mobile phone in managing nuanced, instrumental coordination and accessibility, whereas “hyper-coordination” involved not only the instrumental aspects of mobile phone uses, but also included an expressive dimension (Ling & Yttri, 2002).



teens. They found that different age groups had different usage and attitudes toward their mobile phones. Their study found that the older these teens were, networking with friends were more important to them. The following table was part of their study findings regarding the use pattern among the teen.

-----  
Table 1 about here  
-----

### **Relationships via the mobile phone**

Many studies of the mobile phone focused on social aspects of mobile phone teen usage and some of them studied (e.g., Harper, 2005; Ito & Okabe, 2006; Taylor & Harper, 2003) the impact of the mobile phone in human interaction and relationships in everyday life. A group of mobile phone researchers (e.g., Green, 2003; Ling & Yttri, 2002, 2006; Oksman & Rautiainen, 2003) turned their attention to how the mobile phone, has become a pivotal technology in teens' emancipation from their parental home. For teens, one way to create personal identity is choosing association (peers) as a replacement for that family. The mobile phone provides the teen with resources to make the selection (Green, 2003).

### **Relationship with parents via uses of the mobile phone**

Ward (2002) argued that the mobile phone could help family members to keep in touch even though they were physically apart. On the other hand, the mobile phone could also produce "virtual families" and have an isolating effect on individuals and their family members even though they lived in the same household. As a result, family members may suffer from a lack of face-to-face contact and meaningful social interaction (as cited in Mitchell, 2006).

Some researchers (Kopomaa, 2000; Ling, 2004; Oksman & Rautiainen, 2002; Rakow & Navarro, 1993) reported that parents used the mobile phone for the "mobile parenting" of their teens. These scholars reported that parents used the mobile phone to monitor and regulate their teens. For example: de Gournay (2002) and Kopomaa (2000) noted that parents bought children mobile phones to reassure and supervise the children regardless of where they were and what they were doing. In the past, parents spoke to their children's friends and classmates in order to follow their children's activities by fixed-line phones. They might call several phone numbers to find the right person who could in turn tell them where their child was. Now, parents often communicate directly with their children via the mobile phone (Srivastava, 2005). Children also can call their parents to pick them up after activities (Ling, 2004; Ling & Yttri, 2002; Miyaki, 2005).

For their part, teens have developed "resistance" skills in their move towards independence (Ito, 2005; Ling, 2004) and control of their own affairs via the mobile phone (Green, 2001, 2003; Taylor &

Harper, 2003). Kopomaa (2000) commented that the mobile phone allowed young users to make active choices concerning with whom they wanted to contact. Green (2001) and Ling (2004) noted that youths avoided parents' monitoring by not answering their mobile phones (claiming that they did not hear it ring or that the battery was dead) or by not telling the truth to their parents. This was in spite of the fact that these teens understood the importance of their mobile phones with regard to safety and emergency situations.

Moreover, Matsuda (2005) also noted that due to the mobile phone, Japanese parents felt that it has become difficult to monitor the activities of their teens. Research reported that teens used the mobile phone at dinner tables in Japan (Matsuda, 2005) as well as in the US (Cellular News, 2006). Ito (2005), in Japan, and Green, in the UK (2001) have reported that the mobile phone was also used in private bedrooms in order to avoid parents' monitoring.

On the other hand, the teen used their mobile phones to contact their grandparents. A quarter of the UK teen reported that they used their mobile phones to have more frequent contact with their grandparents (The Carphone Warehouse, 2006). In Finland, the teen sent SMS to their grandparents for keeping in touch. And, their SMS messages were used to organize daily life and reinforce the family unit (Kasesniemi & Rautiainen, 2002).

### **Relationship with friends via uses of the mobile phone**

The mobile phone provides teens to have control of their network. Researchers found that the mobile phone was used to explore (e.g., making new friends; creating new communities) and to enhance (e.g., keeping touch with old friends and family members) as well as to isolate (e.g., disconnect themselves from others) teens' social network. For the teen, Ling and Yttri (2002, 2006) argued that the mobile phone was seen primarily by the teen as a communication device that they often has positive and emotional terms as connections with people, especially for peers. Tsuji's (2003) study with 16 and 17 year old Japanese teens found that the mobile phone enhanced peer relationships and increase activities outside of parental home; however, it did not mean to decrease the qualities of trust and satisfaction in family relationships (as cited in Matsuda, 2005). Studies (e.g., Green, 2003) found that voice communication via the mobile phone was associated with family by many of European teens, whereas SMS was associated with friends.

Many researchers (e.g., Ling & Yttri, 2002, 2006) found that the mobile phone was used by teens to coordinate daily interactions with friends to "keep in touch." Ling and Yttri (2002, 2006) studies found that the mobile phone was important to its user throughout the day. Ling and Yttri (2002) found that Norwegian teens commented that they might be out of touch if they did not have their mobile phones with them. These teens felt that accessibility was an important aspect of their social life to their friends. On

the other hand, they did not report to have a similar feeling toward to their parents. Norwegian teens also reported that they mainly used their mobile phones to coordinate with peers. Moreover, their studies found that text messaging also was used to maintain and enhance mobile phone teens' social networks.

Based on EU e-living project<sup>14</sup>, Rich Ling and his colleagues reported that there was a significant covariance between mobile phone use and social interaction (Ling, Yttri, Anderson, & DiDuca, 2003). Ling et al. (2003) found that European teens used their mobile phones to arrange an array of informational social activities (e.g., meeting friends).

In UK, 78% of the teen reported that having a mobile phone provided them a better social life with their friends. A quarter of them had received a SMS to invite them on a date. 26% of the teen aged 11-17 year-olds reported that they would feel unwanted if a whole day went by when their mobile phones did not ring. The percentage increased to 42% in 15-17 year old girls. 35% of them reported that they communicated regularly in voice and text to people that they did not want their parents to know about. 68% of 15-17 years olds stated that they would not let their parents checked their SMS messages and pictures on their mobile phones (The Carphone Warehouse, 2006).

Some European studies (e.g., Nafus & Tracey, 2002; Taylor, & Harper, 2003) found that the teen uses SMS to maintain a "gift-giving" relationship. The teen said that they feel responsibilities to make their mobile phone available for their friends (Taylor, & Harper, 2003).

The text message, for example, provides the basic ingredients for a gift. As we have seen, between peers and in the right context it may be offered as a symbolic gesture of friendship and allegiance. The constraints and possibilities of the messaging system can be used to transform the message into something intimate and emotionally valuable. The limitation of message length encourages abbreviation and the use of symbols, which, in a way, personally encodes the message for the recipient. The ability to store the message along with the delivery date and the sender's identity allows memories to be embodied and cherished in a tangible form. The technology and how it is used and understood thus become intimately related; each brings its own forces to bear on the other so that no one factor can be seen to drive why or how a technology comes to be used in everyday life (Taylor, & Harper, 2003, p. 294).

Researchers questioned whether the mobile phone forced family members apart or if it brought them together (Matsuda, 2005). On the one hand, Martin and de Singly (2000) reported that some teenagers used the mobile phone to escape from interactions with their parents. At the same time they

---

<sup>14</sup> The EU e-living project gathered survey questionnaires from Norway, the UK, Germany, Italy, Bulgaria and Israel in December of 2001.

used it to interact with their friends who were not physically present with them (as cited in Haddon, 2004, p. 67). On the other hand, researchers (e.g., Castells et al., 2006) reported that better parent-children relationships were fostered by the mobile phone. The mobile phone was used by teens to negotiate the boundaries between their childhood and adulthood with their parents. The mobile phone gave children greater levels of privacy and independence. It created a new chance for young people to loosen their family ties while remaining accountable. At the same time, the mobile phone gave parents the security of a lifeline to their children and enabled parents to rationalize the loosening of their duties to set boundaries for their children. In addition, the mobile phone can become a locus of misunderstandings and mistrust between generations.

## **Method**

This study conducted four preliminary focus group interviews in June 2008 in Taiwan to understand the mobile phone use pattern among Taiwanese teens. Four focus group interviews conducted in at a middle size public junior high school in the South in Taiwan. Nine female students and sixteen male students from the school participated in these interviews. A total of 25 teens were participated in this study. Six of them who were all males had not owned a mobile phone. Many of them first got their mobile phone when they were elementary school students.

The focus group method was used because the focus group facilitated, introduced topics, encouraged participation, and probed for information in a flexible and interactive way to get more inside opinions. It increased interaction between participants with regard to discussing each others' ideas (Morgan & Krueger, 1993; Stewart, Shamdasani, & Rook, 2007). This method has been used for social science research for decades (Morrison, 1998). Compared with other types of research methods, the focus group was effective in providing insights into the sources of complex behaviors and motivations. It was an effective method to study participants' motivations (i.e., mobile phone use) in interactive friendly settings (Morgan & Krueger, 1993). Focus group interview questions were asked to provide some preliminary research directions on mobile phone use among the teens. These questions were designed based on prior research on mobile phone use, several years of participant observation in Taiwan, discussions with individuals, and popular literature on media impact in everyday life.

After all focus groups were completed, the researcher transcribed all recorded interviewed into text for analysis. The interview transcripts combined with the interview notes were read several times. The researcher then found categories in the interview notes and interview transcripts. This technique, called "open coding," was the initial and unrestricted coding of data (Strauss & Corbin, 1998). Guided by Knodel (1993) and Strauss and Corbin's (1998) qualitative data analysis recommendations, a codebook was then created to help the researcher to list all categories, and the location of each incident in the data

records. At this point, an axial coding technique was used to make connections between categories. The axial coding brought previously separate categories together into several broad themes. Once the analysis was completed, several direct quotes from interviews that highlighted those themes and discussion points were incorporated into the data analysis.

## **Findings**

*Mobile phone adoption:* Most of the Taiwanese teens reported their parents gave them their mobile phones for safety and security reasons as well as “perpetual contact” (Katz & Aakhus, 2002) between parents and teens. These findings corresponded with other research findings (e.g., de Gournay, 2002; Haddon, 2004; Ling & Yttri, 2002; Nafus & Tracey, 2002; Oksman & Rautiainen, 2003). Results showed that almost all mobile phone teens in this study reported that their parents handed them their first mobile phone and they did not even ask for it. Only one of them (Focus Group #4, a female participant) reported that she had to ask her older brother to give her a mobile phone. “Because I just want to have one, I begged, begged, and begged my brother to give me his mobile phone. He finally gave me his old mobile phone” (Focus Group #4, the female participant). The results seemed to be different than previous research findings that many of the Norwegian teens (Ling, 2004) and Japanese teens (Miyaki, 2006) had to ask their parents to buy them a mobile phone.

For the mobile phone non-users, “No need one” is the primary reason that Taiwanese teens did not own a mobile phone. The result corresponded with Madell and Muncer’s findings in UK (2004). “I might need one when I go to a senior high school” (Group #4, a male participant). Several male participants (i.e., Group #1; Group #2; Group #4) agreed with the statement. “Maybe... when I go to a college” (Group #3, the female participant).

On the other hand, Taiwanese teens seemed to have less mobile phone cost considerations than UK teens (Madell & Muncer, 2004). In the Madell and Muncer’s findings (2004), UK teen worried both costs of mobile phone lines and costs of mobile phone handset when they considered adopting a mobile phone. Some of the Norwegian teens in Ling’s studies (2004) also showed a similar concern. This study found that parents paid for all participants’ mobile phone bills. “Because of my mom paid for it,” or “because of my dad had took care of it,” many of them did not know the amount of money they have spent on their mobile phone.

*Mobile phone usage among teens.* Unlike many research findings (e.g., Ling, 2004; Ling & Yttri, 2002; Skog, 2002) indicated that networking with friends found to be the primary reason for teens to use the mobile phone. Most of the Taiwanese teens in this study mainly used their mobile phones to communicate with their family members. “Micro-coordination” (Ling & Yttri, 2002) with family members via the mobile phone was found to be as important as social networking with their peers.

Participants reported that they called their parents to pick them up and drop them off at their schools. Their parents also called to ask them picked something up on the way home. “Because I see them everyday, my parents did not often call me (Focus Group #1, a male participant).” Many of them also reported that they did not call their friends unless they had some questions to ask. The primary reason was because their friends and them met everyday at school. Some of them commented that their friends’ houses were not too far away from theirs. Therefore, they could easily have face-to-face communication with their friends. Moreover, this study also found that SMS was not too popular in this group. Only one female participant (i.e., Focus group #4) reported that most of her mobile phone calls were made or received by her friends. “I have two best friends. We often talk hours and hours via the mobile phone. I don’t like to use the landline phone at home because my mother might complain.”

*Relationship with parents via uses of the mobile phone.* Many of the respondents neither agreed nor disagreed the mobile phone connected their parents and themselves. Only one female student (i.e., Focus group #1) agreed that the mobile phone helped her relationship with her mother. Her parents got divorced and her mother moved to a different city. “My dad might not be happy if he knew that my mother and I have talked. I didn’t want to upset my father. My mother bought me a mobile phone; therefore, I can talk to her anytime.”

Except for one female participant (i.e., Focus group #4), all of the participants who owned mobile phones reported that they answered their parents’ phone calls all the time. This finding seemed to contradict to previous research findings (Ling, 2004; Green, 2001) that teens used the mobile phone as a “resistance” to their parental control. The participants always kept themselves available for their family mobile phone connection.

Moreover, the “mobile phone bill” seemed not to be an issue between these Taiwanese teens and their parents. A few of them (Focus group #2, 2 male participants; Focus group #3, a female participant) reported that they were surprised by their mobile phone bills once or twice. Their parents only reminded them the issue. “My dad paid my mobile phone bill and he reminded me to use my mobile phone smartly. And then, I did not do it anymore (Focus group #2, a male participants).” “No, my parents did not take my mobile phone away from me. They just told me that I used my mobile phone too much (Focus group #3, a female participant).” “My mother sometimes did blame me when she received my mobile phone bills. But, she paid for my mobile phone bill every time. She is my mother. She often won’t be mad at me too long. I still used my mobile phone as much as I wanted (Focus group #4, the heavy mobile phone female users).”

Conclusions, implications, limitations, and suggest for future studies

In sum, the major conclusion of this study is that Taiwanese teens' mobile phone calls to family and friends were used more for micro- coordination, as predicted by Ling and Yttri (2002). A possible implication might be that there was no need for these teens to use their mobile phones because they were at schools with their friends all of the time. Moreover, most of them lived in the same school district. They can easily visit their friend to have face-to-face communication. Those participants lived home with their parents. Chen and Katz (2009) found that American college students commented they depended on their mobile phones to keep in touch with their parents at home because (1) their relationship with their parents "just like friends"; and (2) separation brought them and their parents together. In this study, those Taiwanese teens lived at home with their family and they were between 11 to 13 years old. It was hard for them to build a friendship-like relationship with their parents.

The most intriguing finding was that it seems that there was less conflicts between parents and teens in uses of the mobile phones. The reason for this result might be due to Taiwan's collectivist orientation, where groups interests were more valued. Hofstede (1980) has argued that most of Asian cultures (e.g., Japan, Taiwan) have collectivist orientations. Collectivist cultures tend to (1) focus on group interests and goals; (2) try to fit into the ingroup; (3) be interdependent with others; and (4) make large differences between in group and outgroup communication. Almost all parents (but one) gave their children their mobile phones when they were very young for safety and security reasons. Parents and teens seemed to have less issues on monthly mobile bills as opposed teens in other country (Haddon, 2004; Ling, 2004). It might be Taiwanese culture's collectivist orientation.

One of the major methodological limitations pertains to sampling method. In these focus group interviews, convenience-sampling techniques were used in collecting this data and the sample was collected all from high school students in the same school. Therefore, the degree to which this finding is limited. Future research may duplicate the study by collecting samples from other high school students.

One possible suggestion for future research is to expand participants to other culture groups, age groups, such as older teens and young adults who are moving out of parental homes and adjusting to new living environments, new careers, or new marriages. Studies (e.g., de Gournay, 2002; Ling, 2004; Rakow & Navarro, 1993) related to parents and young teens' connections by the mobile phone have been conducted. There is a need for more research on different culture teens' desire to connect with their parents via the mobile phone.

## References

- Arnett, J. J. (1995). Adolescents' uses of media for self-socialization. *Journal of Youth and Adolescence*, 24(5), 519-533.
- Bandura, A. (1967). The role of modeling processes in personality development. In W. W. Hartup & N. L. Smothergill (Eds.), *The young child: Reviews of research* (pp. 42-58). Washington, DC: National Association for the Education of Young Children.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1986). *Social foundations of thought and action: A social-cognitive theory*. Englewood Cliffs, NJ: Prentices Hall.
- Bandura, A. (1994). Social cognitive theory of mass communication. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 61-90). Hillsdale, NJ: Lawrence Erlbaum Associations.
- Castells, M., Fernandez-Ardevol, M., Qiu, J. L., & Sey, A. (2006). *Mobile communication and society: A global perspective*. Cambridge, MA: The MIT Press.
- Cellular News (2006). *SMSing under the dinner table*. Retrieved January 10, 2007 from <http://www.cellular-news.com/story/20531.php>
- Cooper, G. (2001). The mutable mobile: Social theory in the wireless word. In B. Brown, N. Green, & R. Harper (Eds.), *Wireless world: Social and interactional aspects of the mobile age* (pp. 19-31). Haslemere, Surrey, UK: Springer.
- de Gournay, C. (2002). Pretense of intimacy in France. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 193-205). Cambridge, UK: Cambridge University Press.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1980). The "mainstreaming" of America: Violence profile no. 11. *Journal of Communication*, 30(3), 10-29.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1982). Charting the mainstream: Television's contributions to political orientation. *Journal of Communication*, 32(2), 100-127.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1986). Living with television: The dynamics of the cultivation process. In J. Bryant & D. Zillmann (Eds.), *Perspective on media effects* (pp. 17-41). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Green, N. (2001). Who's watching whom? Monitoring and accountability in mobile relations. In B. Brown, N. Green, & R. Harper (Eds.), *Wireless world: Social and interactional aspects of the mobile age* (pp. 32-45). London, UK: Springer-Verlag.



- Green, N. (2003). Young people and mobile technologies. In J. E. Katz (Ed.), *Machines that become us: The social context of personal communication technology* (pp. 201-217). New Brunswick, NJ: Transaction Publisher.
- Haddon, L. (2004). *Information and communication technology in everyday life: A concise introduction and research guide*. New York, NY: Berg.
- Harper, R. (2005). From teenage life to Victorian morals and back: Technological change and teenage life. In P. Glotz, S. Bertschi, & C. Locke (Eds.), *Thumb culture: The meaning of mobile phones for society* (pp. 101-122). New Brunswick, NJ: Transaction Publishers.
- Heller, M. (2003). Social and political effects of NICTs and their penetration in Hungary. In K. Nyiri (Ed.), *Mobile democracy: Essays on society, self and politics* (pp. 147-164). Vienna, Austria: Passagen Verlag.
- Hofstede, G. (1980). *Culture's consequences: International difference in work related values*. Beverly Hills, CA: Sage Publications.
- Holmes, D., & Russell, G. (1999). Adolescent ICT use: Paradigm shifts for educational and cultural practices? *British Journal of Sociology of Education*, 20(1), 69-78.
- Ito, M. (2005). Mobile phones, Japanese youth, and the re-placement of social contact. In, R. Ling & P. E. Pedersen (Eds.), *Mobile communications: Re-negotiation of the social sphere* (pp. 131-148). London, UK: Springer.
- Ito, M., & Okabe, D. (2006). Intimate connections: Contextualizing Japanese Youth and mobile messaging. In R. Kraut, M. Brynin, & S. Kiesler (Eds.), *Computer, phones, and the Internet: Domesticating information technology* (pp. 235-247). New York, NY: Oxford University Press.
- Johnsen, T. E. (2003). The social context of the mobile phone use of Norwegian teens. In J. E. Katz (Ed.), *Machines that become us: The social context of personal communication technology* (pp. 161-169). New Brunswick, NJ: Transaction Publishers.
- Kasesniemi, E.-L., & Rautiainen, P. (2002). Mobile culture of children and teenagers in Finland. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 170-193). Cambridge, UK: Cambridge University Press.
- Katz, J. E., & Aakhus, M. (2002). Introduction: Framing the issues. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 1-14). Cambridge, UK: Cambridge University Press.
- Knodel, J. (1993). The design and analysis of focus group studies: A practical approach. In D. L. Morgan (Ed.), *Successful focus groups: Advancing the state of the art* (pp. 35-50). Newbury Park, CA: Sage Publications.

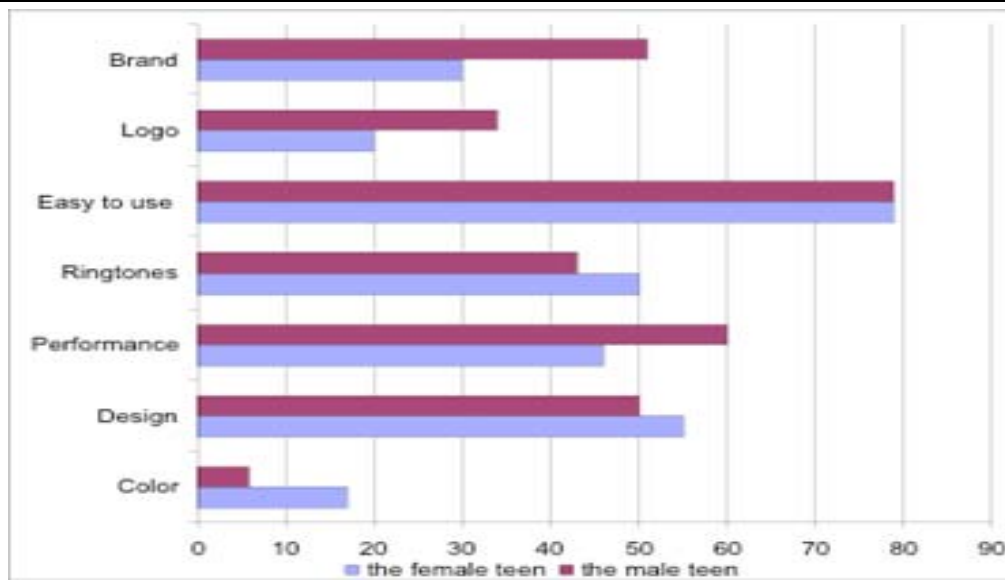
- Kopomaa, T. (2000). *The city in your pocket: Birth of the mobile information society*. Helsinki, Finland: Gaudeamus Kirja.
- Lenhart, A., Madden, M., & Hitlin, P. (2005). Teens and technology: youth are leading the transition to a fully wired and mobile nation. *PEW Internet & American Life Project*. Retrieved July 7, 2007 from [http://www.pewinternet.org/pdfs/PIP\\_Teens\\_Tech\\_July2005web.pdf](http://www.pewinternet.org/pdfs/PIP_Teens_Tech_July2005web.pdf)
- Ling, R. S. (2004). *The mobile connection: The cell phone's impact on society*. San Francisco, CA: Morgan Kaufmann.
- Ling, R. S. (2005). The socio-linguistics of SMS: An analysis of SMS use by a random sample of Norwegians. In R. Ling & P. Pedersen (Eds.), *Mobile communication: Renegotiation of the social sphere* (pp. 335-349). London, Springer.
- Ling, R., & Yttri, B. (2002). *Hyper-coordination via mobile phones in Norway*. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 139-169). Cambridge, UK: Cambridge University Press.
- Ling, R., & Yttri, B. (2006). Control, emancipation, and status: The mobile telephone in teens' parental and peer relationship. In R. Kraut, M. Brynin, & S. Kiesler (Eds.), *Computer, phones, and the Internet: Domesticating information technology* (pp. 219-234). New York, NY: Oxford University Press.
- Ling, R., Yttri, B., Anderson, B., & DiDuca, D. (2003). Mobile Communication and social capital in Europe. In K. Nyiri (Ed.), *Mobile democracy: Essays on society, self, and politics* (pp. 359-373). Vienna: Passagen Verlag.
- Madell, D., & Muncer, S. (2004). Back from the beach but hanging on the telephone? English adolescents' attitudes and experiences of mobile phones and the Internet. *CyberPsychology & Behavior*, 7(3), 359-367.
- Matsuda, M. (2005). Discourses of Keitai in Japan. In M. Ito, D. Okabe, & M. Matsuda (Eds.), *Personal, portable, pedestrian: Mobile phones in Japanese life* (pp. 19-39). Cambridge, MA: MIT.
- Mitchell, B. A. (2006). *The boomerang age: Transitions to adulthood in families*. New Brunswick, NJ: Transaction Publishers.
- Meyrowitz, J. (1985). *No sense of place: The impact of electronic media on social behavior*. New York, NY: Oxford University Press.
- Miyaki, Y. (2006). Keitai use among Japanese elementary and junior high school students. In M. Ito, D. Okabe, & M. Matsuda (Eds.), *Personal, portable, pedestrian: Mobile phones in Japanese life* (pp. 277-299). Cambridge, MA: MIT.
- Morgan, D. L., & Krueger, R. A. (1993). When to use focus groups and why. In D. L. Morgan (Ed.), *Successful focus groups: Advancing the state of the art* (pp. 3-19). Newbury Park, CA: Sage Publications.

- Morrison, D. E. (1998). *The search for a method: Focus groups and the development of mass communication research*. Luton, Bedfordshire, U.K.: University of Luton Press.
- Nafus, D., & Tracey, K. (2002). Mobile phone consumption and concept of personhood. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 206-221). Cambridge, UK: Cambridge University Press.
- Okada, T. (2005). Youth culture and the shaping of Japanese mobile media: personalization and the Keitai Internet and multimedia. In M. Ito, D. Okabe, & M. Matsuda (Eds.), *Personal, portable, pedestrian: Mobile phones in Japanese life* (pp. 40-60). Cambridge, MA: MIT.
- Oksman, V., & Rautiainen, P. (2002). Perhaps it is a body part: How the mobile phone became an organic part of the everyday lives of Finnish children and teenagers. In J. E. Katz (Ed.), *Machines that become us: The social context of personal communication technology* (pp. 293-308), New Brunswick, NJ: Transaction Publishers.
- Philippines telecoms: Cell phone penetration to peak at 50% (2006). Philippine Daily Inquirer. Retrieved March 22, 2009 from [http://globaltechforum.eiu.com/index.asp?layout=rich\\_story&doc\\_id=8994&title=Philippines+telecoms%3A+Cell+phone+penetration+to+peak+at+50%25&channelid=4&categoryid=30](http://globaltechforum.eiu.com/index.asp?layout=rich_story&doc_id=8994&title=Philippines+telecoms%3A+Cell+phone+penetration+to+peak+at+50%25&channelid=4&categoryid=30)
- Rakow, L. F., & Navarro, V. (1993). Remote mothering and the parallel shift: Women meet the cellular telephone. *Critical Studies in Mass Communication*, 10(2), 144-157.
- Skog, B. (2002). Mobiles and Norwegian teen: identity, gender and class. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 255-273). Cambridge, UK: Cambridge University Press.
- Smith, G. (2008). Voice rules the mobile world, for now. *Taiwan Review*. Retrieved March 22, 2009 from <http://taiwanreview.nat.gov.tw/ct.asp?xItem=43969&CtNode=128>
- Srivastava, L. (2005). Mobile phones and the evolution of social behaviour. *Behaviour & Information Technology*, 24(2), 111-129.
- Stewart, D. W., Shamdasani, P. N., & Rook, D. W. (2007). *Focus group: Theory and practice* (2<sup>nd</sup> Ed.). Thousand Oaks, CA: Sage Publications.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2<sup>nd</sup> Ed.). Thousand Oaks, CA: Sage Publications.
- Taylor, A. S., & Harper, R. (2003). The gift of the gab? A design oriented sociology of young people's use of mobiles. *Computer Supported Cooperative Work*, 12(3), 267-296.
- The Carphone Warehouse (2006). The mobile life youth report 2006: The impact of the mobile phone on the lives of young people. *The Carphone Warehouse*. Retrieved July 6, 2007 from <http://www.mobilelife2006.co.uk/>

US mobile phone penetration rate close to 49%, says FCC (2003). *EMSNow Media*. Retrieved March, 30, 2009 from <http://www.emsnow.com/newsarchives/archivedetails.cfm?ID=2060>

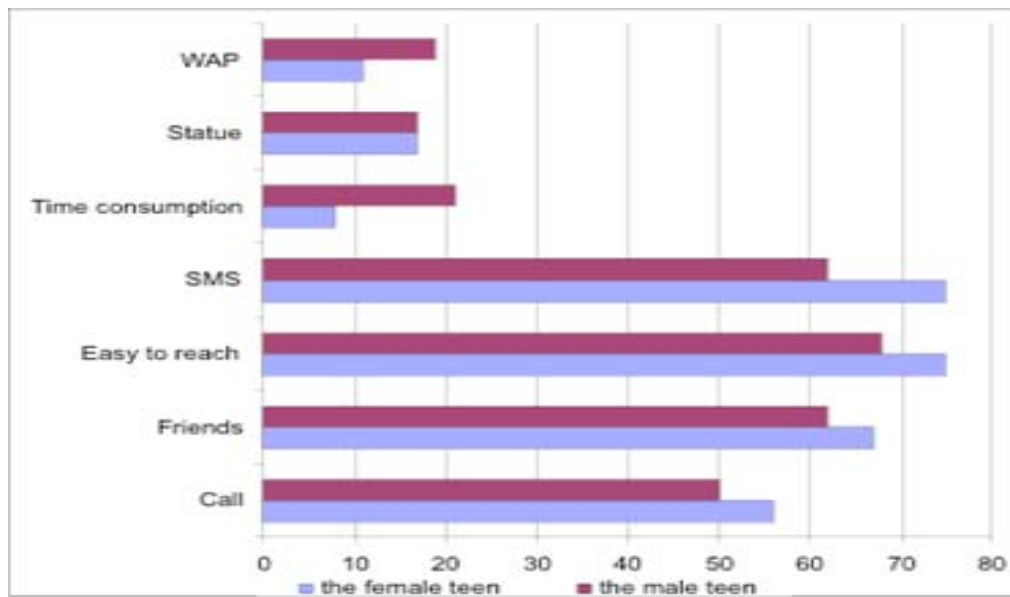
Appendix

**Figure 1: Factors considered “very important” in female and male teens’ choice of a mobile phone**



Source: Skog, 2002

**Figure 2: Factors considered “very important” in female and male teens’ use of a mobile phone**



Source: Skog, 2002

### **Relationship to the mobile phone according to age group in 2000 among Finnish children and teens**

---

Age	Relationship to the mobile phone
Small child (under 7 years old)	<ul style="list-style-type: none"><li>▪ Relationship is often either indifferent (imaginative) or personifying (animistic).</li><li>▪ The device may be interesting but important toys are more significant.</li><li>▪ Games as the most interesting feature.</li></ul>
Child (7-10 years old)	<ul style="list-style-type: none"><li>▪ Attitudes begin to differentiate. The relationship is usually quite pragmatic.</li><li>▪ The mobile phone is seen as a game machine.</li></ul>
Pre-teen (10-12 years old)	<ul style="list-style-type: none"><li>▪ The age of “mobile fever:” the mobile phone becomes an important appliance, the significance of toys has diminished and the importance of hobbies and friends increase.</li></ul>
Teen (13-15 years old)	<ul style="list-style-type: none"><li>▪ Attitudes to mobile phones differentiated: practical and instrumental for some and expressive and affective for others.</li><li>▪ Personalizing and making the device more aesthetic.</li></ul>
Pre-adult (16-18 years old)	<ul style="list-style-type: none"><li>▪ Relationships where the practical and the instrumental side are highlighted become more common.</li><li>▪ Offline use decreases.</li></ul>

---

Source: Oksman and Rautiainen (2003, p. 307).