'Mobile Phone – the Must-Have Gadget of the 21st Century': Identifying Trends and Impact on Human Relationships

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ABSTRACT

In the urban areas of Malaysia, it is common to see people holding mobile phones regardless of time and location. There is a high prevalence of mobile phones usage among Malaysians, particularly youths even with most primary school students owning these socially interactive technology gadgets. This study seeks to examine pervasiveness of mobile phones and dependency on the gadgets among male and female users, explore whether the high dependency on mobile phones contributes to any positive or negative effects on human relationships, and to propose solutions if there are any negative effects on aspects of human relationships due to high mobile phone usage in their daily lives. The researchers employed triangulation analysis, which combined both quantitative and qualitative methodologies. The instruments of analysis for the research were surveys and personal interviews.

Keywords: Communication, human relationships, Malaysia, mobile phone

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1. INTRODUCTION

1.1 Study Background

Mobile phone technology has developed rapidly since the first generation of mobile phone system came into use. Today, the mobile phone system has evolved into 3G. With the advent of technology and more and more advanced mobile phones systems, it is predicted that mobile phones will become a very essential item in every individual's daily life. According to the Cellular Telecommunications and Internet Associate (CTIA), more than 158 million people in the United States had gone wireless in 2003 (Rosen, 2004). As of December 2010, the figure had risen to 302.9 million people (CTIA, 2010).

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Nowadays, mobile phone users are a common sight regardless of time and location. In Malaysia, even primary school students are seen enthusiastically playing with their mini, handy and socially interactive mobile phones. In 2007, 85.1 % of Malaysians were mobile phone users, and Malaysia was only behind Singapore and Thailand in terms of mobile penetration rate in ASEAN (Digital Media Across Asia, 2010). According to *The Star* (2007), two major telecommunication companies were targeting 21 million mobile users with their newly launched mobile instant messaging (MIM) services.

Usage of mobile phones these days is mainly for communication purposes such as for making calls, sending short messaging service (SMS) and multimedia messaging service (MMS), entertainment purposes including photography, music, and games, WAP, GPRS, 3G, personal organiser, etc. The pace of innovation in mobile phones in terms of its uses or functions is caused by several factors. Market demand is one factor that contributes to popularity of mobile phone usage. Mobile phones have become essential, indispensable gadgets because they provide various functions. "Combined with the individual use of cell phones—to make appointments, locate a friend, check voicemail messages, or simply to check in at work—cell phones offer people a heretofore unknown level of convenience" (Rosen, 2004). It is not surprising that the market for mobile phones is still expanding rapidly due to the advantage of convenience that mobile phones provide to the users.

There is a difference in terms of the usage of mobile phones among male and female users. Cotton (cited in University of Alabama at Birmingham, 2009) discovers that there is a gender divide in the use of cell phone features among children. It was found that the boys scored higher in using their cell phones for games, videos, pictures, music, and email purposes as compared to girls. Cotton attributed it to gender socialisation in which male children are habitually trained to be creative and adventurous in their use of technology. Moreover, females are found to be more communicative than males. Indeed, an American market study on cell phone usage shows that women spend more time talking and sending messages using mobile phones as compared to men (Blackburn, 2010).

The common scenario of massive use of mobile phones in the Malaysian context has initiated the researchers' interest to research on the issue of prevalence of mobile phone usage among Malaysians, particularly youths and adults. From this study, the researchers aim to identify users' perception on the impact of such pervasive mobile phone use on society in terms of human relationships.

This study is important in the sense that it generates an understanding from the users' perspective about the impact of the prevalence of mobile phones on human relationships at a local context and creates awareness about the impact of high dependency on mobile phones. The new information that is gathered would be applied to find solutions if there is/ are any disruptive and negative impact(s) on society in terms of human relationships.

The objectives of this study are to:
• Identify which gender uses the mobile phones more often
• Explore the perception of users on the impact of mobile phones on interpersonal relationships
• Propose solutions, if there are any negative effects on human relationships.

2. USES AND GRATIFICATIONS (U & G) THEORY

The theoretical framework of this study is the Uses and Gratifications (U & G) theory which was introduced by Blumler and Katz (1974). This theory has been used extensively to study media audience and explore the use of media to gratify needs (Vivian, 2006). It is an individualist functional theory that views audience as active users who are conscious of their media-related needs (McQuail, 2000). Many such studies focus on "how individuals choose certain media outlets...and reasons why people use the media" (Vivian, 2006: 378). This study looks particularly into the socialisation function. In this study, socialisation refers to how mobile phone use can facilitate social interaction. The prevalence of mobile phone usage is examined based on the audience's viewpoints in either bringing more positive or negative impacts, or a combination of both in human relationships through mediated communication using mobile phones.

3. LITERATURE REVIEW

3.1 How Mobile Phones Have Changed Our Way of Life

Oksman's (2006) study on the mobile information society was brought about by an interest in discovering the way information technology, particularly mobile phones, has transformed youths' daily interaction in a different context. There is more focus on the youth in the research on mobile communication because they are deemed to be the early adopters of mobile phones who pioneered a culture of actual mobile communication. His study showed that mobile phones are important in the aspects of personal space, greater opportunity of widening the horizon of relationships, self-expression, and personal security.

Chen and Katz (2009) conducted focus groups to examine the pattern between college students' mobile phone usage and their family members at home, and to what extent it affects their college life. Its major findings were that the mobile phone is 'a must' for college students to keep in touch with their family. The use of mobile phones is important for increasing frequency of contacting their family and fulfilling their family roles. Besides, it is used to share experiences and physical and emotional support with their parents.

The studies by Oksman (2006), Chen and Katz (2009), and the researchers of this study address the same issue, that is, mobile communication and impact on interpersonal relationship. The study by Oksman (2006) revolved around the theme of usage of mobile phones in the societal relationships of young people and seniors, which is similar to Chen and Katz's research. On the other hand, this study goes further and attempts to explore the possible effects of this immense usage and high dependency of mobile phones on human relationships in society. Some of the methodological approaches used by Oksman (2006) would also be applied in this study, that is the survey and interview approaches.

The largest social study, The Mobile Life Report, was conducted by The Carphone Warehouse Group (2006) in the United Kingdom. It looked at how mobile phones have altered society and the way people live their lives today. The aim of that study was to investigate the impact of mobile phones on all aspects of people's lives, which included family, relationships, work, and society at large. The same goal was also shared by the study of Chen and Lever (2006) on 'Teledensity' which focussed on mobile communication

in a college campus. They sought to understand the social consequences of mobile digital technology. A part of their study also examined consequences of mobile communication on aspects of human relationships. In contrast, the setting of this study is different in terms of the geographical area and cultural context.

The finding from The Mobile Life Report reveal how the usage of mobile phones has changed the daily lives of society. Findings yielded from the study show how women use mobile phones to deter the unwanted advances of men and the significance of mobile phones in overtaking television viewing among young adults. Alternatively, the study conducted by Chen and Lever (2006) reveal that men (89.%) are more likely to be alone than women (87.5%) when they use their mobile gadgets. They argue that gender patterns of 'absent presence' exist following the technology function, which is the mobile phone in their case, to remove individuals from their location within the community. It is predicted that the pattern of 'absent presence' would result in isolation and irritation for non-users (Chen and Lever, 2006).

From the perspective of sociology, communication via mobile phones has become a superficial substitute for face-to-face relationships (Cox and Leonard, 1990, cited in Geser, 2004). Coz and Leonard contend that mobile phones expand social networks and increase contact frequency with those who are separated by distance, relatives or friends whom one would not like to meet, and even secondary acquaintances. Hence, mobile phone communication influences an individual's peripheral layers of social relationship (weak ties relationship) (Ling, 2000c; Granovetter, 1973, cited in Geser 2004). Short message services (SMS) is a non-intrusive medium that allows delayed feedback and attention. Geser (2004: 19) argues that SMS is highly functional for enlarging the social sphere of many layers of peripheral relationships. It may even be a replacement for closer relationships by offering "an ever accessible reservoir of superficial contacts", which demand very minimal emotional effort and participation. Similarly, the present research seeks to find out the impact of mobile phone usage on human interpersonal relationships.

3.2 Comparison between Genders

Additionally, Chen and Lever (2006) also made a comparison of mobile teledensity(the frequency of mobile phones use) between males and females in a college campus. Findings show that male users have higher mobile teledensity (13.8%) than female users (11.6%). Similarly, our study also aims to find out whether a high frequency usage of mobile phones is more prevalent among male users or female users.

Again, Chen and Katz's study (2009) demonstrate that there is a difference in the use of mobile phones between males and females. Male respondents are reported to have limited contact via the mobile phones with their family and more frequent contact with friends as compared to female respondents. Conversely, female participants engage in frequent contact via the mobile phones with their family members, and mobile phones are perceived as tools for sharing experiences, and providing psychological and physical support. The current research also intends to examine differences in mobile phone usage between the genders.

3.3 Psychosocial Perspective of Younger Users

The study undertaken by Davie *et al*. (2004) indicate that mobile phones have become a medium for adolescents to communicate with their family and friends. For them, the advantage of mobile phones is communication without adult surveillance. Mobile phones serve the purpose of communicating their whereabouts, where to be picked up, and make arrangements for social events. Besides, adolescents are engaged extensively in text messaging. The research also reveals that phone purchase is mainly initiated by the adolescents.

Psychosocial aspects of mobile phone use among adolescents have also been researched before by The Australian Psychological Society (2004). Adolescents were the specific focus for the research because adolescents have a high rate of mobile phone ownership and SMS communication. The research looked into several areas of interest in terms of psychological and social issues. It is reported that the adolescents in the study do not indicate excessive use of mobile phones. Findings showed that adolescents make relatively few calls and SMS messages. Moreover, the use of mobile phones by the adolescents has improved their relationships with their peers and promoted easier communication between adolescents.

However, some negative impacts of using mobile phones among adolescents are the loss of self-control with their mobile phone use and over-dependence on mobile phones as a safety and security device. Furthermore, the excessive time that adolescents spend on the mobile phones has resulted in common disagreement between adolescents and parents, and family time has suffered due to adolescent's mobile phone use. This study which is also examining impact of mobile phone use in terms of family and peer relationships will explore further the Malaysian context. However, the focus of the study is on youth and adults rather than on adolescents.

3.4 Convenience and Safety Implications

Convenience and safety are two practical reasons that are accountable for the immense use of mobile phones in today's society. Kopomaa (2000) states that mobile phones provide a meeting place for spending time; concurrently, a non-place, a hub without physical or geographical boundaries. It is not surprising that the convenience factor has encouraged more mobile phone use in society. A product developer claims that phones have become the Swiss army knife in our lives (Rosen 2004). This implies the significance and the usefulness of mobile phones in our daily lives. Rosen's study also reveals that interactions of individuals with the people whom they have already known can be enhanced by the use of mobile phones; however, the possibility of interacting with strangers could be eliminated due to the erosion of the face-face community.

4. METHODOLOGY

4.1 Quantitative and Qualitative Methods

In this study, the researchers employed an analysis which integrates both quantitative and qualitative methodologies. The quantitative approach was chosen to produce more explicit data collection as well as to make it easier for the researchers to aggregate, compare, and

summarise data (Babbie, 2001). The application of the quantitative method helped the researchers to quantify the frequency of usage of mobile phones and to make comparisons on the use of mobile phones between males and females. The qualitative methodology was also applied to illustrate the meaning of concepts explicitly (Babbie, 2001). By using a qualitative method, the researchers were able to present a more precise description of high dependency on mobile phones and its effect on human relationships. The researchers have used both these useful research techniques in this study in order to achieve a thorough understanding of users' perception of the impact of the high prevalence of mobile phone use on human relationships.

The quantitative method employed the questionnaire technique while the qualitative method depended on the interview for information. The interview technique was incorporated in this study to acquire an in-depth understanding of the issue through a smaller sample. Due to time and human resource constraints encountered, interviews were helpful to collect data on this issue. Moreover, the interview itself can be manipulated to customise to individual respondents (Wimmer and Dominick, 2000). By doing so, various responses can be gathered by the researchers in order to identify the effects of the prevalence of mobile phone use on human relationships.

4.2 Sampling

The sample for this study consisted of youth and adults aged between 15 and 40 years and who were residing in the Klang Valley. Due to the nature of the research topic, purposive sampling was used. In this research, those respondents who were selected were all mobile phone users, which facilitated the researchers to achieve their objectives. By looking at broader segments of users, the researchers aimed to achieve higher internal validity and gain a profound insight in relation to users' perception of the impact of the prevalence of mobile phones on human relationships.

Questionnaires were distributed to 550 male and 550 female respondents respectively. Questionnaires containing 11 questions (10 closed-ended questions and one open-ended question) related to this study were distributed to the participants, who were communities within public and private higher education institutions.

Interviews were conducted with another 20 selected respondents within Kuala Lumpur and Selangor. The researchers selected 20 interviewees who matched with the requirements of this study, and contacted them personally to make appointments for the interview session. Semi-structured questions for the interview sessions were pre-prepared. The interviews were conducted personally (one to one). During the interview sessions, the interviewer asked a few questions from a list of 15 standard questions, relevant to the issue, to obtain their feedback and opinions on the issue. The interviewer took field notes and recorded each interview session.

4.3 Data Analysis

The data collected were analysed separately. Data collected from the survey were keyed into Microsoft Excel for further analysis while responses obtained from the interview sessions were typed out in word format to identify similar themes.

5. ANALYSIS AND DISCUSSION

5.1 Survey Research

5.1.1 Male and Female Usage of Mobile Phones

The findings of the study revealed that respondents mainly used the mobile phones to make calls, SMS, take photographs or videos, and MMS. Results showed that for male respondents, the mobile phones were mainly used to make calls (21%) and SMS (20%) while for female respondents, the mobile phone was mainly used to make calls(23%) and SMS(23%) respectively. This is followed by using the mobile phones to take photographs as the third most important function for the male respondents (14%) while for the female respondents, taking photographs(14%) and MMS(14%) showed equal weightage (Figures 1 and 2).
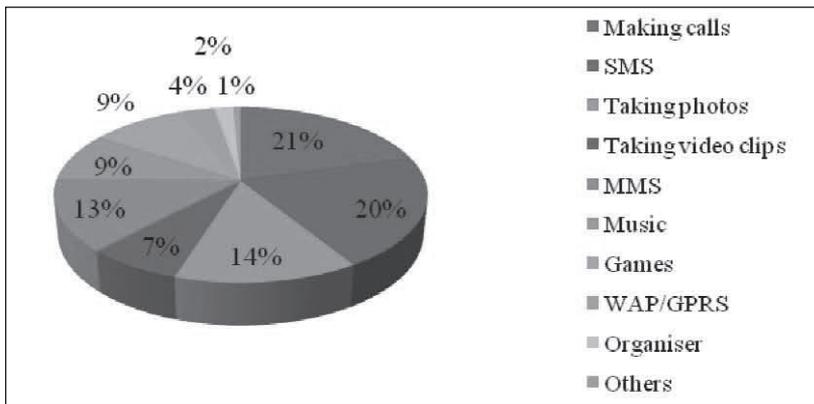

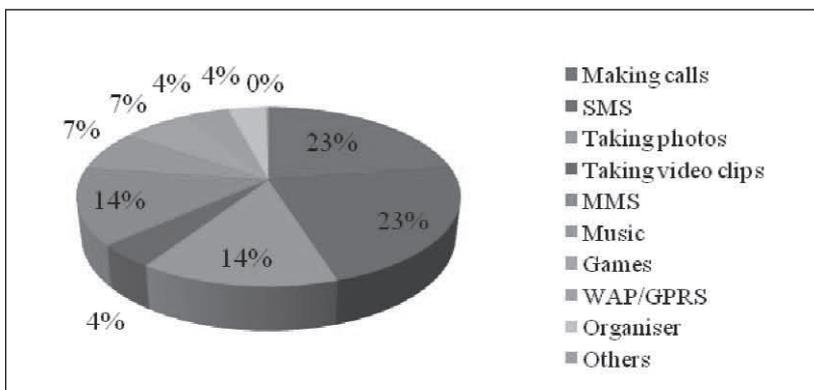**Figure 1**. Mobile phone usage among male users

Figure 2. Mobile phone usage among female users

5.1.2 Frequency of Mobile Phone Usage
The results showed that both genders have high a frequency of mobile phone usage. Nevertheless, female respondents in this study reported a higher frequency of mobile phone usage(76%) as compared to male respondents (71%) (Figure 3). High frequency refers to usage of 15 times or more per day.

5.1.3 Dependency on Mobile Phones
Results of the survey revealed that the female respondents were more dependent on mobile phones in their daily lives compared to male respondents. Seventy-two per cent of female users responded that they felt uneasy, uncomfortable, insecure, or worried if they did not have their mobile phones with them as compared to male users (22%) (Figure 4). This
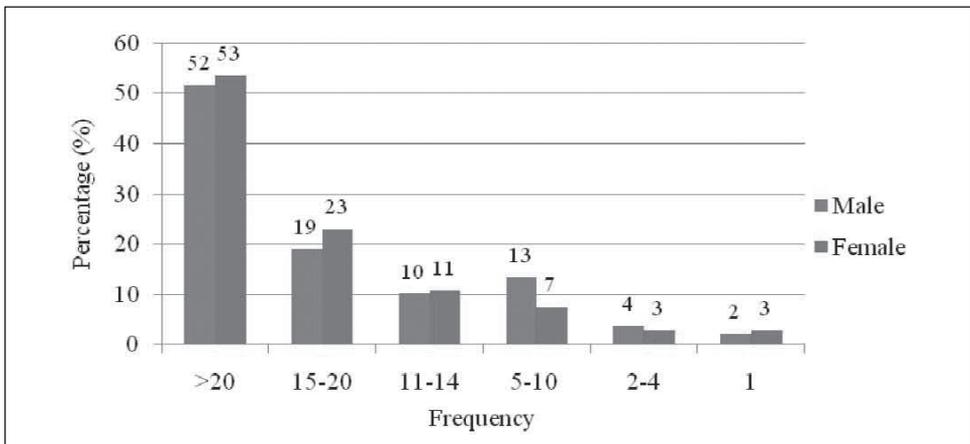

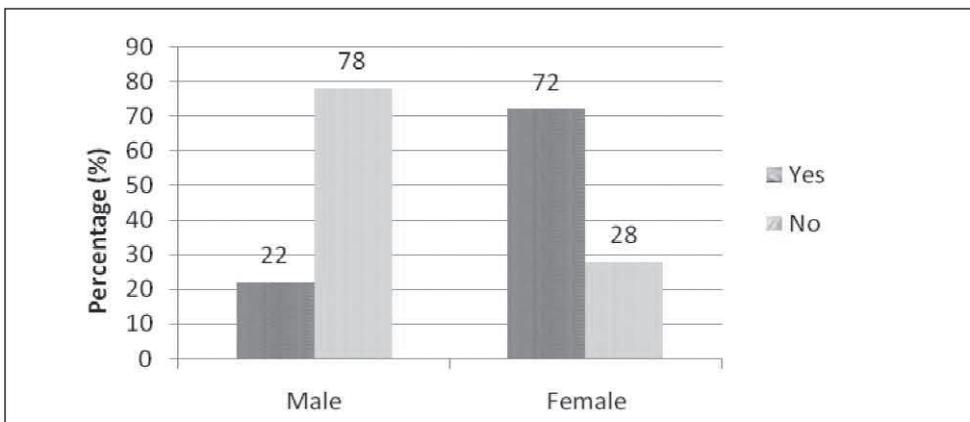**Figure 3.** Comparison of mobile phone daily usage between males and females

Figure 4. Comparison of mobile phone dependency between males and females

indicates that while a high percentage of male participants (78%) have a lower dependency on mobile phones in their daily lives, the figure for lower depency for females was only 28%.

5.1.4 Impact on Human Relationships

The results of the survey indicated that mobile phone users believe the use of mobile phones has several impacts on human relationships. Sixty-two per cent of respondents indicated that mobile communication would not jeopardise the chance of meeting with others such as family members, lovers, and friends. Thus, mobile communication might not have a great negative impact on human relationships as people still prefer to communicate through face-to-face. Additionally, 33 % of the respondents perceive that mobile phone use helps in maintaining good rapport between family and friends. In contrast, 67 % of the respondents view face-to-face communication to be a more effective way to maintain a good relationship between family and friends. This clearly signifies that face-to-face communication still plays a significant role in human relationships.

Moreover, 64% of the respondents are also more willing to reconcile with others through face-to-face meetings after a misunderstanding. The majority of the respondents (72%) also feel that intimacy of human relationships can be achieved though face-to-face communication rather than mobile communication. This implies that the majority believe that good relationships can be established through more face-to-face communication rather than mobile communication which eliminates the power of non-verbal cues. It can be argued that mobile phone use functions as a facilitating instrument of face-to-face communication for reconciling and developing a good relationship rather than as the primary means of development and maintenance of a better human relationship.

In general, 71% of the respondents share the same thought, that is, the relationship with others would be influenced psychologically by mobile communication. It is interesting to note that 64 % think that communicating through mobile phones enhances the relationship emotionally and 36% think that it makes it worse. Moreover, only 29% of the respondents do not think that communicating through mobile phones would affect their relationship with their next of kin and friends emotionally. From these findings, mobile phones can be considered as a device which can affect one's relationship with others emotionally. Of the 780 respondents, 64 % think that mobile phone use is for the better, which is a sign that the use of mobile phones to communicate would help to build a better relationship with others.

Some female respondents state that prevalence of mobile communication would contribute to curiosity, suspicion, misunderstanding, and less interaction among people. This is believed to be one of the factors that prevent people from building good relationships. A few participants mention that some can conceal their real or genuine feelings through mediated communication using mobile phones, thus, causing more harm than good. A few of them emphasised that communicating using mobile phones offers much convenience and therefore can be considered good.

5.2 Interview Findings

From the interview conducted with 13 female and 7 male participants, 15 interviewees responded that they belong to the high frequency of mobile phone users because their daily use of mobile phones for calling, on an average basis, is five times or more. Eighteen of them also revealed that their daily use of mobile phones for SMS, on an average basis, exceeded 10 times.

In addition, all except one interviewee were found to be relying heavily on mobile phones in their lives as they rank mobile phone as one of their three most important items in their lives. Besides, they also expressed negative sentiments when they were given a situation where they had lost their mobile phones. A majority of them stated that they would 'feel sad', 'lost', 'insecure', 'worried', 'depressed', and 'angry' if they were to lose their mobile phones.

Through the research findings, the researchers found that both mobile communication and face-to-face communication have their own strengths in making it easier for people to express care and affection towards others.   However, many of the interview participants answered that face-to-face communication allowed easier expression of care and affection towards others due to the presence of body language, non-verbal expressions, and visual contact. They also mentioned that only face-to-face communication is viable for expressing intimacy and affection (See Excerpt 1).

"Face-to-face, non-verbal can be very expressive and loving."

"Face-to-face, can express myself more."

"Face-to-face, non-verbal cues are important."

"Face-to-face, more at ease."

"Mobile, difficult to express freely when it is face-to-face."

"Mobile, can't say much when it is face-to-face."

Excerpt 1

Moreover, a participant responded that face-to-face communication leads to better accuracy of messages transmitted. For those who preferred the mode of using mobile phones to express care and affection, they responded that communicating using mobile phones makes them feel more secure, comfortable, at ease, and are less awkward and embarrassed.

All respondents agree that human relationships with others would be greatly influenced by mobile communication due to the advent of mobile technology. As a result of relying heavily on mobile phones in daily interactions, the possible negative impacts on human communication and relationships are over-dependency on mobile phones and mobile communication, decreased human face-to-face communication, disruption of social activities, lack of self-confidence and effective communication skills, helpless feelings, lack of physical expression and intimacy, dishonesty, inability to express directly and clearly, misinterpretation of meanings, and misunderstood communication (Excerpt 2).

> "Can't survive without it and affects face-to-face interaction."
>
> "I panic easily, over-dependent."
>
> "Disturbs other activities in my daily life."
>
> "Causes lack of confidence and skills to communicate face-to-face."
>
> "Addicted to hand phones, feel helpless if I were to lose it."
>
> "People can lie through mobile communication."
>
> "If I were to lose my phone, I would feel like I have lost contact with the whole world."
>
> "Misunderstanding and misinterpretation of meaning could happen."

Excerpt 2

Nevertheless, some of the interviewees believe that mobile communication does not just contribute to negative consequences on human communication and relationships, but also leads to some positive effects on human relationships. The first four interviewees mentioned that mobile communication sometimes helps to improve and enhance current relationships with others as it facilitates direct interpersonal communication in a positive light. Also, distance is no longer a barrier for communication since mobile technology has become extremely advanced. Mobile communication becomes an alternative and a convenient way to communicate with loved ones (See Excerpt 3).

> "Keeps me updated with others' latest happenings, improves my relationships with them."
>
> "Distance and different geographical areas are no longer barriers to communication, improves relationships."
>
> "Builds good relationships for face-to-face communication."
>
> "Improves relationships with others and makes it easier to communicate with them face-to-face."

Excerpt 3

6. CONCLUSION

The current study yielded findings that were different from the study carried out by Chen and Lever (2006). For their study, the male gender had a higher frequency of mobile phone usage compared to our study where the female gender demonstrated a higher frequency of mobile phone usage. However, the results of this study support the findings reported by Chen and Katz (2009) that female users engaged in frequent contact via the mobile phones with their family members as opposed to male users. A private company released data indicating that American women are generally "bigger talkers and texters" than American men (Blackburn, 2010). Moreover, the findings of the present study showed the presence of negative emotions when mobile phones are lost. The higher dependency of female

respondents on mobile phones, as indicated in this study, could be due to the safety and convenience function as highlighted by Kopomaa (2000) and Rosen (2004).

The studies of Oskman (2006), Rosen (2004) and the researchers show that communicating through mobile phones can enhance relationships with people. The present study revealed that communication via mobile phones improved relationships with others. This reinforces Chen and Katz's study (2009) that mobile phones play the role of increasing frequency of contacting family members and fulfilling their family roles such as providing moral support thus, enhancing relationships. Mobile phone communication enhances human interpersonal relationship by enlarging the social networks (Cox and Leonard 1990, cited in Geser 2004). Similarly, the present study showed that mobile phone communication brings about desirable effects on interpersonal relationships such as facilitating better face-to-face communication and puts to rest the issue of distance for lack of communication. The benefits of mobile phone communication could be the main reason for the use of mobile phone among youth. This explains the reason for their use of mobile phones as suggested by the Uses and Gratifications theory. Development of personal relationships is one of the four main reasons of media use (Blumler 1979; McQuail *et al.*, 1972, cited in Jensen 2002). The manner in which mobile phones are used indeed helps facilitate social interaction.

However, the current study differs from that of Oskman(2006) as the findings show that the mobile phone communication has eliminated the power of non-verbal language, which is an essential element of effective communication. In terms of preference for face-to-face communication over mobile phone communication, it can be associated with the advantage of face-to-face communication that includes rich non-verbal communication, as well as the advantage of immediate attention and feedback. Cox and Leonard (1990, cited in Geser 2004) claim that mobile phone communication is a superficial substitute for face-to-face communication. Mobile phone communication alone, without face-to-face communication, lacks essential communication elements. For example, SMS becomes a reservoir of superficial contact, which comprises little emotional involvement (Geser 2004: 19).

Through this study, the researchers found that the prevalence of mobile phones has several positive and negative impacts on human relationships. The negative consequence is mainly the ineffectiveness of mobile phones to communicate as a primary mode. Such unproductive communication would eventually affect human relationships. During telephone conversations, only verbal messages were sent by the encoder and received by the decoder to interpret and respond (DeVito 2005). There is a glaring lack of non verbal communication. According to Pearson and Spitzberg (1990), non verbal communication plays its role in clarifying a message through emphasis. Non verbal cues contribute to the understanding of the whole message and lead to accurate interpretation. The elements would affect the way a person relates to others and this forms the relationships between people. As claimed by DeVito (2005), communication helps an individual to relate to others and this function leads to the starting point of building relationships, as well as developing and maintaining good relationships. In general, face-to-face communication is still the preferred and dominant mode of social interaction.

The researchers suggest a few measures that could be taken in order to overcome the negative consequences of mobile phone pervasiveness. Since it is the era of 3G, people would be more likely to engage in mobile communication due to its convenience. Therefore, it is necessary for individuals to be aware of the downside of mobile phone use, specifically how mobile communication may influence their daily life. In order to avoid misinterpretation of messages, and to resolve the issue of absence of non verbal communication, 3G technology would be the best available option provided to the users at this point in time.

Self-discipline by controlling themselves from being over-dependent mobile users is one of the ways to reduce the negative impact of the prevalence of mobile phone use. It would also be helpful if the current interactions, which are too focussed on mobile communication, could be diverted into other types of communication such as face-to-face, group communication, video conferencing communication, etc. By doing so, it would allow people to experience and make comparisons between different forms of communication and at the same time, sharpen their communication skills.   Subsequently, individuals could choose whichever form of communication that offers more advantages to efforts towards establishing and maintaining good relationships with others.

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