South African youth and mobile technology impact:
The MXit phenomenon

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Abstract
An empirical study has been done to determine the extent to which South African youth is making use of MXit, and its effect on them. The purpose of the study was to indicate to parents, employers as well as other relevant stakeholders the level of usage as well as the impact of MXit on its users.

Since the target market of MXit is the youth, the authors have conducted a survey of a number of school-going and working youth by means of a questionnaire. The sample consisted of primary school learners, as well as high school learners, higher education learners and young working people.

The research methodology used was a literature survey and a questionnaire. Demographic results indicated that the profile of the typical MXit user is a female aged above 13 years, who uses MXit between 18:00 and 24:00, for two hours and less.

The study has shown that the issues surrounding MXit do not seem to be as serious as reports indicate. However, incorrect usage of mobile technology and in particular the MXit application could have a negative impact on users in relation to their personal safety, their emotional well-being as well as to their productivity at work, school and play. Furthermore the research has also highlighted the role that parents have to play in understanding and monitoring their children's mobile technology usage.

Keywords: youth, cell, phones, instant, messaging, MXit, chat

1. Introduction

According to a report in IOLTechnology (31 January 2007), MXit has expanded at a rate of between 9 000 and 12 000 new registered users daily. Launched in May 2005, the South African-based IM (instant messaging) service company has grown phenomenally and, by 31 January 2007, MXit had signed up its three millionth subscriber. Heunis, MXit founder and CEO, has indicated that he expects users of the IM service to increase dramatically as they embark on an international launch.

However, there is evidence of an increasing number of children who have become the victims of people who study, monitor, stalk, lure and eventually kidnap children as a result of their participation on MXit.

2. Literature survey

A literature survey has revealed that not much has been written about MXit in itself in academic literature, as it is a relatively new phenomenon. In fact, not a single journal article, conference paper or thesis was found on the MXit topic, after extensive searching on Sabinet, NISC, EbscoHost, Emerald, Proquest, ScienceDirect, SpringerLink or SwetsWise.

Much of the information that is available on the topic is to be found in newspaper articles, blogs and on websites. These mention instances where children have fallen prey to paedophiles that enter chat rooms and arrange meetings with their innocent victims after extracting confidential information from them via MXit. The broader topic of IM, of which MXit is an example is, however, more prolific in traditional academic literature. IM is discussed elsewhere in this paper.

2.1 Business interest

Mochiko (2007) states that the company's success has attracted business interest to such an extent that South African media group, Naspers, has added the IM business to its portfolio by acquiring a 30% share in MXit Lifestyle (Pty) Ltd.

With Naspers as an investor, MXit has begun its expansion plans toward the international market. The company envisages expanding to nine more countries during the next three years. With its current figures of 400 000 international users, Heunis's plan is to reach the 50-million international customer target by the end of 2008.

There are other companies which offer the same services internationally. In spite of this, Heunis believes that the untapped market has huge potential provided that basic services such as software, which is initially required, are offered free of charge.

Keating (2006) reports that two young Cape Peninsula University of Technology students are the inventors of Idrive.co.za, which is a website that enables users to search for driving schools and book lessons. These two innovative Capetonians are the first business owners to use MXit as a means to allow their clients to contact their website by using the Internet and a cellphone in order to put people in contact with driving school instructors. The MXit user is able to chat to the iDrive.co.za admin staff, by using MXit, for real-time support, which makes finding a driving school even easier.

The popularity of MXit among school pupils and university students, made them realise the value of MXit as a business tool and they launched their website in September 2005. As an extension of this, they now find that driving instructors are utilising MXit as a means to maintain contact with their clients.

2.2 The market

Leung (2006) states that results from a random sample of 532 college students show that students who made the heaviest use of SMS were motivated by its convenience, its low cost, and its utility for coordinating events. These users who were socially anxious, were unwilling to communicate face-to-face and were put off by the confusing acronyms used in mobile messaging appeared to be those who spent less time using SMS. This is despite the fact that the SMS service could help overcome students' shyness about bringing up

difficult topics with friends. In broad terms, SMS is a social technology and has become a popular communication utility for college students.

MXit's popularity is attributed to the fact that it provides inexpensive IM, text-based communication to cellphone users. This is done via General Packet Radio Service (GPRS) which enables one to use Wireless Application Protocol (WAP) to browse the Internet via a GPRS-enabled cellphone.

In order to initiate MXit, users have to download the required software onto a cellphone as a once-off initiation. Thereafter, they are able to send and receive messages from people who are also connected to MXit, via either cellphones or computers at a cost of 2c, which is many times cheaper than a SMS rate of between 35c and 80c.

MXit is currently one of the largest generators of GPRS traffic in South Africa with users logging onto its servers more than six million times daily and sending over 100 million text messages a month.

Within its two years of operation, the company has attracted as many as three million users between the ages of 12 and 25, which is largely attributed to its low-cost message rate. Other than its low-cost messaging, MXit offers its users a range of services and products, such as news and games.

According to Mochiko (2006), MXit has the potential to have a profound effect on the SMS market because network operators have begun to realise the importance of data services. This author added that SMS charges are expected to continue to decrease and that frequent SMS users would switch to MXit. One of the operators, Cell C, has acknowledged that MXit is a company to monitor as it would change the SMS market, especially within the youth segment.

Cell C, Vodacom and MTN have started to offer SMS bundles, as well as lower the cost of sending a message.

Heunis, however, believes that MXit is not an SMS replacement and does not purely offer messages. He claims that SMS has its own advantages and ability, and that MXit targets a different market where subscribers have to sign up, unlike conventional SMS offerings.

Van Niekerk (2007) states that those who are the most vulnerable in the MXit environment are children and adults who lack meaningful relationships in their lives and for whom this form of communication has become a substitute.

2.3 Instant messaging

IM is a form of real-time communication between two or more users based on typed text. IM is a popular medium for both social and work-related communication. Rovers & van Essen (2004) state that IM is a popular chatting platform on the Internet and increasingly permeates teenage life. Even intimate and emotional content is discussed. Avrahami & Hudson (2004) propose that the growing use of IM for social and work-related communication has created a situation where incoming messages often become a distraction to users while they are performing important tasks. Staying on task at the expense of responsiveness to IM buddies may portray the users as impolite or even rude. Constantly attending to IM, on the other hand, may prevent users from performing tasks efficiently, leaving them frustrated.

Grinter & Palen (2002) indicate that IM is being widely adopted by teenagers. In a study of 16 teenage IM users, they explored IM as an emerging feature of teen life, focusing questions on its support of interpersonal communication and its role and salience in everyday life. They discussed behaviors around privacy management. In their investigation, they found differences in the nature of use between high school and college teens. They proposed that the differences emanate from the teens' degree of autonomy as a function of domestic and scholastic obligations, the development of independent work practices, Internet connectivity access, and even transportation access. Moreover, while teen IM use is in part characterized as an optimizing choice between multiple communications media, its practice is also tied to concerns around peer pressure, peer group membership and creating additional opportunities to socialise.

2.4   The precarious side of MXit

It should be stated that long before MXit was introduced in May 2005, most cellphones had the ability to search the web via an Internet browser on the phone. This allowed children access to everything and anything that is available on the Internet. Unlike the personal computer environment, where a myriad of software products are available to protect children, the cellphone industry has yet to implement such safety nets. MXit is not a web browser and, therefore cannot be used to access pornographic or other adult sites, or adult chat rooms; nor can it be used to send pornographic or adult content.

Considering its low cost, MXit is particularly appealing to teenagers. However, for the same reason, it is also easily accessible to paedophiles.

According to Rondganger (2006), since October 2006, MXit has developed stronger links with police to rid its system of potential sex predators. The service had been used by an alleged paedophile, a 33-year-old man who kidnapped a 16-year-old Ekurhuleni girl. He allegedly abducted and sexually assaulted her after he had met her on the MXit chat room, where he was able to obtain the girl's home address. It is not known whether or not the girl knew the man's age while chatting to him on the service.

Heunis has indicated that they have considered ways to increase the security of their service, by giving police detectives more access to their chat rooms. Based on this, a detective went onto the service and contacted the perpetrator, while he pretended to be a teenage girl. A trap was set and the perpetrator was arrested.

Business owners have also reported claims that their staff spends large amounts of time on MXit, which has a negative impact on their work.

2.4.1   MXit at school

Other than reported violent crimes, which emanate from MXit, users have evidently become addicted to it. Particularly in 2006, the abuse of MXit by learners has manifested in school benches where learners were spending hours on MXit during school time. Schools have responded in various ways with one school starting a support group for pupils who are addicted on MXit. The support includes discussions and writing essays about learners' personal experiences on MXit, while others have simply banned cellphones.

Early findings of the Film and Publications Board indicate that, in the Western Cape, exposure to pornography on cellphones is worse than on the Internet. This is not directly

attributed to MXit as users can not access pornographic content on websites via MXit. The same board also investigates the use of MXit at schools, across the country, considering that MXit indicates that it is not associated or connected to pornography. MXit has also been described as a huge dating service by a learner (Keating & Williams 2006).

A spokesperson for the Western Cape Education Department has said in the Cape Argus (23 August 2006) that principals have also blamed MXit for poor performance among learners because they no longer pay attention in class. They also chat all night and are consequently tired the next day at school. One learner claimed she was addicted to sexual chat rooms, which destroyed her self-esteem.

A Grade 11 pupil, who has been off MXit for two months, said she had had sexually explicit conversations with older males she had met in chat rooms on MXit. She stopped when her mother found out about the messages.

Western Cape Education MEC (Dugmore), has praised schools for their response to this problem and has indicated that more research is needed on this phenomenon. There is no national or provincial policy - normally, individual schools would determine their own codes of conduct. He iterated that clear direction is necessary in terms of dealing with the MXit phenomenon within schools (Keating & Williams 2006).

2.4.2 MXit at home

While schools have their problems with MXit, it has also raised issues within the home. There has been a particular report of a 12-year-old boy who has undergone a drastic change in his behaviour since he became linked to MXit. Peters (2006) states that since all his friends had cellphones, he desperately wanted to become part of a fashion that has usurped the country's teenagers namely, to become a resident of MXit. He simply wanted to chat to his friends but soon the urge was to get into chat rooms.

This began an experience that has left the 12-year-old emotionally scarred and psychologically damaged, to the extent that he now attends counselling three times a week. A discussion with one particular girl at the time became personal and intimate which resulted in a request for them to meet. The girl friend turned out to be a man who tried to force himself onto the boy.

2.5   Response from MXit Lifestyle (Pty) Ltd

The company has provided information for parents on their website, which attempts to enlighten parents about the technology and the potential dangers that are linked with its incorrect usage (MXit 2007). Section 2.5.1 is a verbatim quote from the MXit website.

2.5.1 "Precautions:
In order to try and minimise the inherent risks, we have put the following precautions in place:

- All teenagers' chat rooms (Like TeenZone) have profanity filters (this means that swearwords are replaced by ##### symbols) .
- Moderators assiduously monitor the rooms on an ad hoc basis.
- No user profiles, which normally include personal details and photographs, are stored. There are many chat rooms on the internet that do store user profiles.

- The MXit chat room acts as a cocoon. The user remains completely anonymous while in the chat room, and as long as he/she does not puncture this cocoon by revealing any personal information (including information about friends and family), he/she remains safe in his/her anonymity.
- All MXit chat rooms are public by default with a limited number of people in them - so every person can see every message and can respond.
- Users can at any time leave a chat room or type the .ignore command to ignore someone who is abusive.
- Every time users enter the chat rooms we remind them to keep their personal information confidential.
- None of our chat room names or descriptions has any sexual slant and we strongly discourage any form of discrimination and/or explicit sexual chat.
- By using our website, users can report abuse.
- We publish safe chatting tips on our website and forum in a number of places.
- A shorter version of safe chatting tips is built into the MXit phone application and users are constantly reminded to view it."

Section 2.5.2 is a verbatim quote from the MXit website.

2.5.2 "**Safe chatting tips**

1. People on the Internet may not be who they say they are!
2. Please keep your phone number, MXit PIN, and residential address a secret.
3. Be careful not to reveal personal information about your friends or family to strangers. Everyone deserves their privacy!
4. If you're posting a profile on for instance our forum, don't include any information which could help to identify you offline - your personal email address, mobile phone number, home or school address, pictures of yourself; these all give strangers more information about you than you need or want them to know...
5. Keep your online relationships ONLINE! Even if you think you know your contacts well enough, we still strongly advise that you DO NOT meet offline with strangers. Paedophiles and other offenders are clever; they sometimes spend months gaining their victims' trust, before asking to meet with them."

Section 2.5.3 is a verbatim quote from the MXit website.

2.5.3 "**If you do, however, decide to meet with someone in real life**

- Always tell a loved one where you are going, who you are meeting, and when you will be back.
- Meet in a public place.
- Ideally, take a friend with you and have the other person do the same.
- Do not invite anyone to your home or go to their home. Keep your distance until you feel you know them well enough.
- Take your mobile phone along, and make sure it's fully charged and has calling credit. Get someone to call you at a pre-arranged time to check that everything is OK. This person can also act as your alibi, giving you an excuse to leave if necessary.

We, at MXit Lifestyle, will continually strive to make the MXit world a safer place. "

2.6   The need for education

According to Rondganger (2006) Heunis was angry that an alleged paedophile had used his system and because there was nothing more that they could do to further secure the chat room service to protect its users. There is a link on their website to educate parents about the proper usage of the service. It is vital that users should never provide personal information to strangers and that they should remain anonymous at all times when they are in the chat rooms.

It is not advisable for children to spend hours at a time on MXit. According to Heunis, he does not advocate or condone the use of cellphones during school hours or when children should be doing homework.

Heunis has said that parents should talk to their children about their use of MXit. He also claimed that MXit should be regarded as a "positive" service because it provided a cost-effective way for people to communicate.

According to MXit Lifestyle (Pty) Ltd, clear guidelines which deal with the responsible use of their technology are provided to users in the form of a text message each time they enter any of their chat rooms. These guidelines can also be accessed through their website. The program cannot control the content of the chat, but there are warnings on the website where users have to register. Furthermore, MXit is also not in any way associated or connected to pornography.

MXit Lifestyle (Pty) Ltd has confirmed that in order to prevent unpleasant experiences from occurring, profanity filters have been established to block abusive language and a "Report Abuse Function" is operational on the website for users to access. A list of safety tips have also been posted on the website and MXit portal.

MXit is also in the process of a joint venture with ChildLine, which allows children to receive online counselling. According to van Niekerk, it is parents' responsibility to ensure that their children are educated about the dangers of services such as MXit and the Internet. She states that it is not MXit that is bad, but that some users abuse it. Criminals who prey on children will use any means available to get to them, even via technology. It is the parents' responsibility to teach their children about the dangers, which potentially lie in the use of cellphones and the Internet.

Parents are urged to set rules and guidelines for their children who use MXit, instead of banning it. For example, children should be told that they can only talk to relatives and friends, and that they cannot use it during school hours. If used correctly, MXit can assist in saving on telephone costs, especially if friends or relatives live in other parts of the country.

In order to use MXit, users should subscribe to the services via the Internet and can then chat to other users. Those whom they know can be added to their MXit contact lists. If parents are concerned about who the children chat with, they can become users of the service, since by adding their children as a contact, they can then monitor their MXit activities.

2.7   What makes this technology precarious?

Holloway & Valentine (2003) focus on children's access to and use of new Information and Communications Technologies (ICT). They also look at the ways in which children's technological competencies on the Internet are shaping their use of time, domestic relationships, friendship networks and sense of community from the local to the global scale. They state that children are at the heart of contemporary debates about the possibilities and dangers that the new information and communication technologies might bring.

Peters (2006) states that according to child psychologist Heide, it is imperative for parents to become more involved with "their children's technological escapades". Technology, especially in the form of cellphones, is relatively cheap and readily available to a large proportion of society and increasingly to younger children. An application such as MXit is also low-cost and readily available.

Parents are often technologically challenged and, therefore, choose to ignore their children's interest in activities such as MXit. Chat rooms are intimate in terms of the discussions, which take place largely because of its anonymity. These faceless dialogues that children engage in may result in the sharing of personal information. On a social level, parents may not have open communication channels with their children and, therefore, children might not feel free to discuss their addictions.

3.   Research methodology

The research methodology included a survey of relevant literature and a questionnaire.

Since the target market of MXit is the youth, the authors have conducted a survey of a number of school-going as well as working youth by means of a questionnaire. The sample consisted of a number of primary school learners, as well as high school learners, higher education learners and young working people.

4.   Results

The results obtained from the survey are summarised below.

4.1   Demographics
Of the 168 respondents, 58% were female. This provides an interesting variation from the results of Weideman & Strümpfer, who had a 29% female participation in a demographic study on Internet search engine usage (Weideman & Strümpfer, 2004:62). Of these, 51% were aged older than 13 and 47% younger than 13. The ages varied between 10 and 31 years of age - refer to Figure 1 for details.
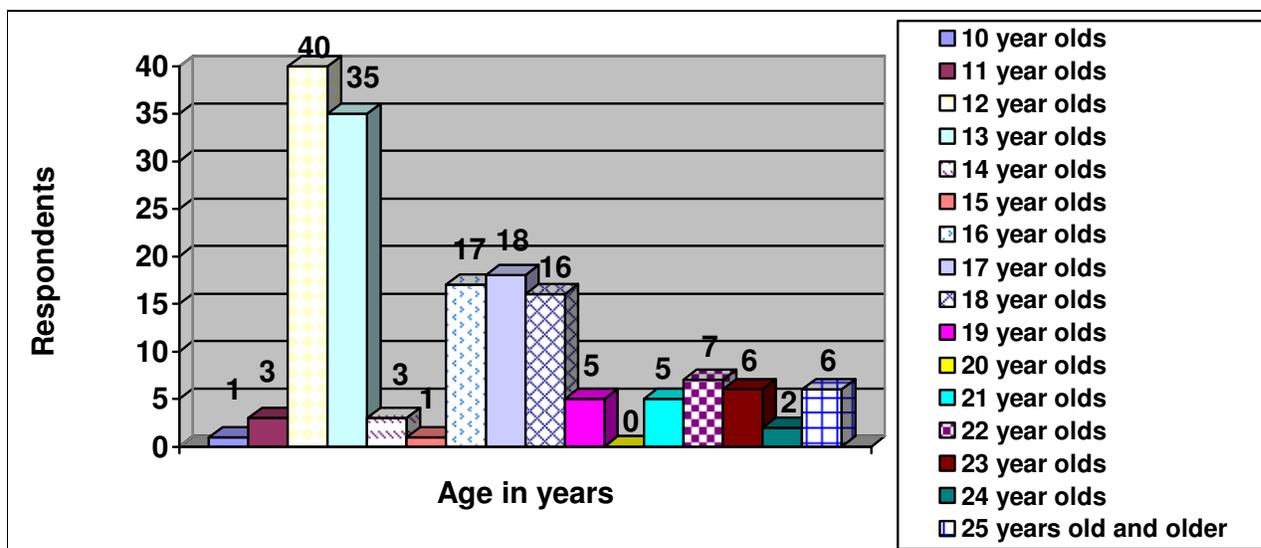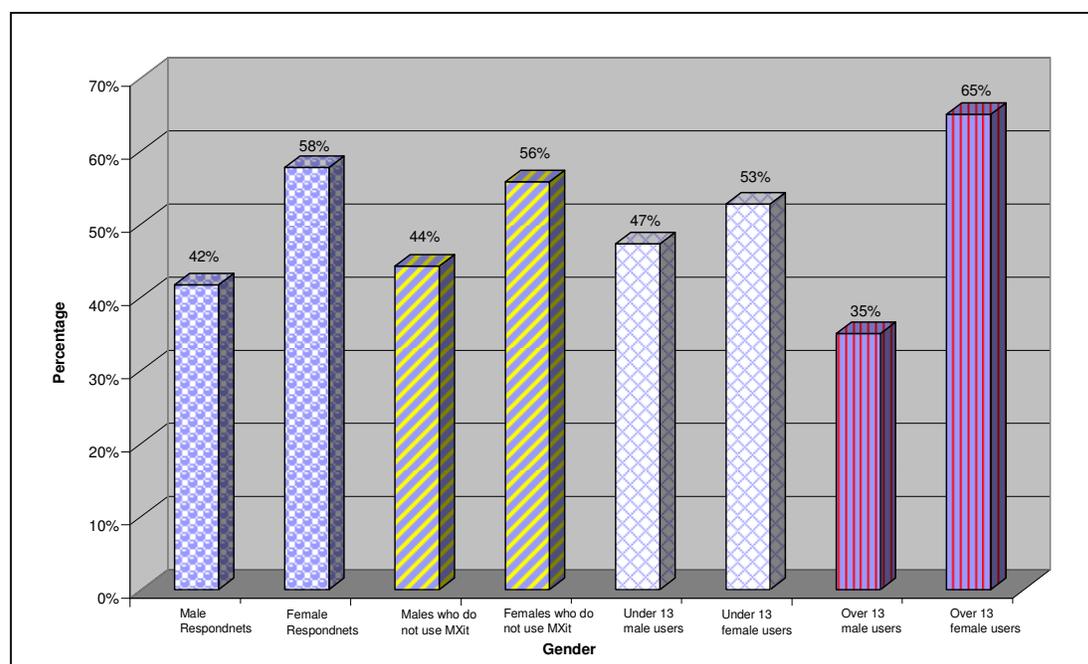
Figure 1: Respondent's age

Figure 2: Gender Analysis

The number of males for all four classes of participants was consistently lower than the females – see Figure 2.

4.2 MXit usage

MXit has been used by 68% of the respondents before. Of the 32% who have not made use of MXit before (see Figure 3), the following are some of the reasons for not doing so:

"I can't use MXit as I'm in matric and need to focus on my schoolwork."
"MXit can cause a lot of problems at school and at home."
"It's like a drug you get addicted to it. People forget to do simple things when on MXit."
"I heard bad things about it and it becomes addictive and I don't want to be like them."

Figure 3: Reasons for not using MXit (more than 1 option)
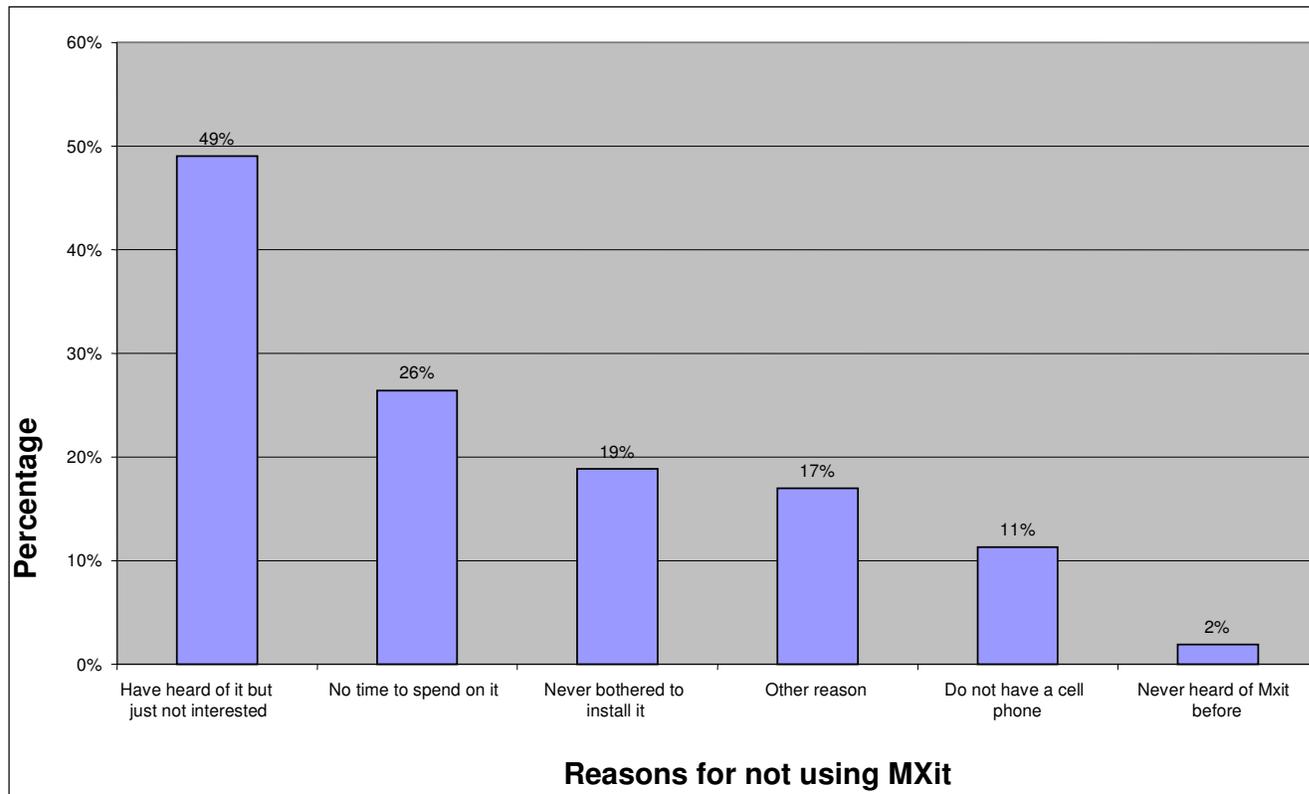
Of the respondents who have not used MXit before, 58% do not intend to do so in the future. Of those respondents who have made use of MXit before, Table 1 illustrates when they last they did so.

Table 1: The last time MXit was used

Today (day of survey)	13%
Yesterday	39%
A week ago	14%
Two weeks ago	5%
A month ago	3%
Longer than 1 month ago	13%

Some comments as to why they are attracted to MXit include:
"I can be who I want to be and its fun joking with people."
"I can chat to cousins in Mpumalanga."
"When I'm taking a break from my school work and that's at 10.30 at night I go on MXit to relax my mind."

The users of MXit indicated the reasons as to why they were attracted to it in Table 2.

Table 2: Attraction to MXit (more than 1 option)

|	
It is fun	64%
It is cheap	55%
It allows me to meet people	38%
I have available time to spend on it	13%
I can pretend to be anyone	12%
Other (comment below)	10%

More than eight hours in one particular day were spent by 25% of MXit users at some time. Figure 4 illustrates how much time they spent on it per day.

Figure 4: Time spent on MXit per day
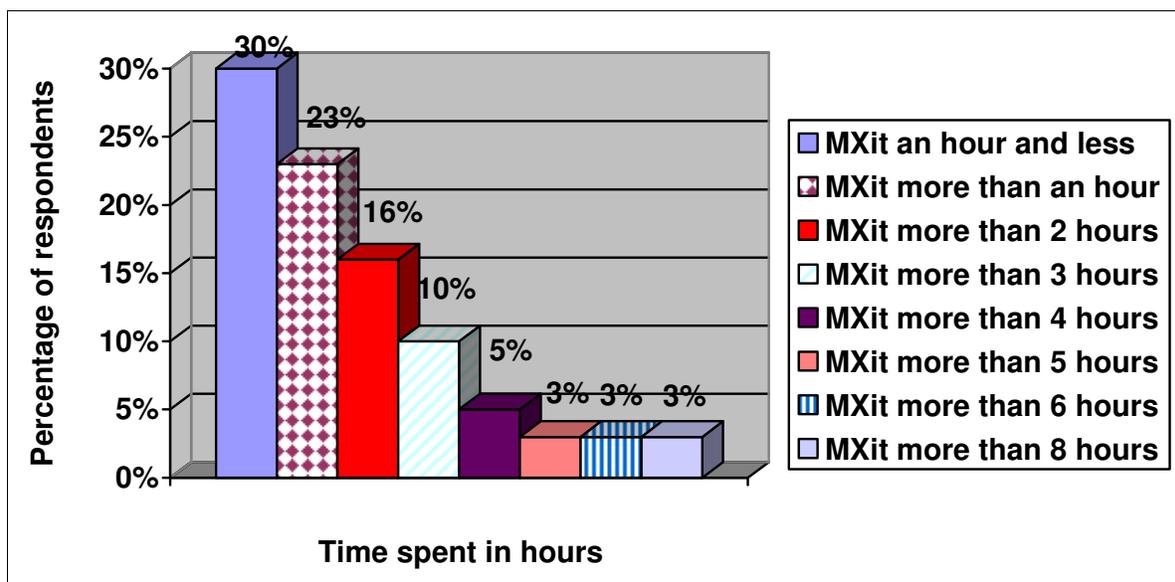
Because they have been on MXit, 29% of MXit users can not complete their daily work. Figure 5 illustrates the time of the day they access the MXit service.

Figure 5: Time of the day spent on MXit (more than 1 option)
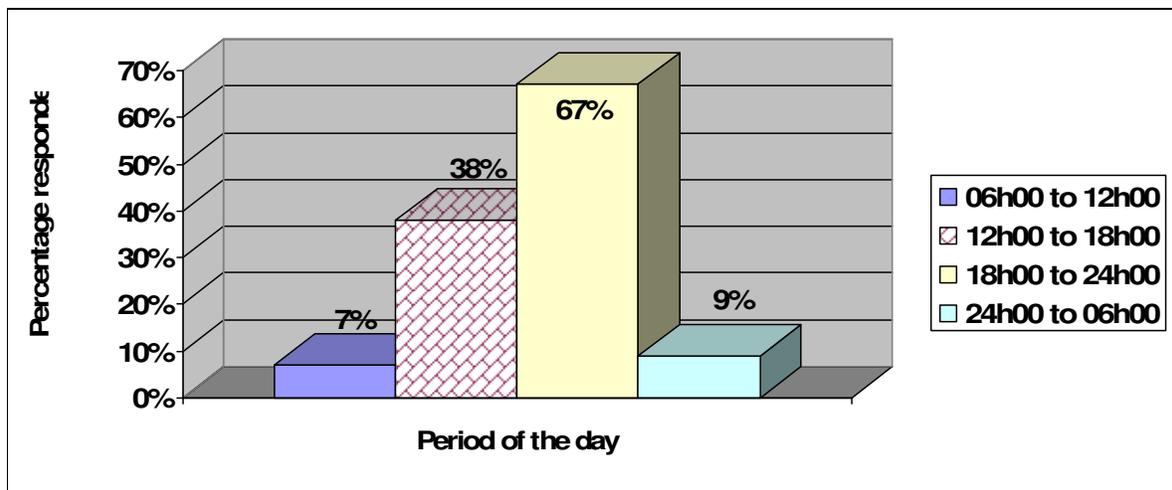
Of the MXit users, 86% indicate that their parents/guardians are aware that they make use of MXit, while 51% say that they have spoken to their parents/guardians about MXit and 63% say that their parents understand MXit.

If faced with a choice, 13% would prefer MXitting above alternative activities which they may enjoy. Figure 6 illustrates how long users think they will still be using it.

Figure 6: How long users think they will still be using MXit
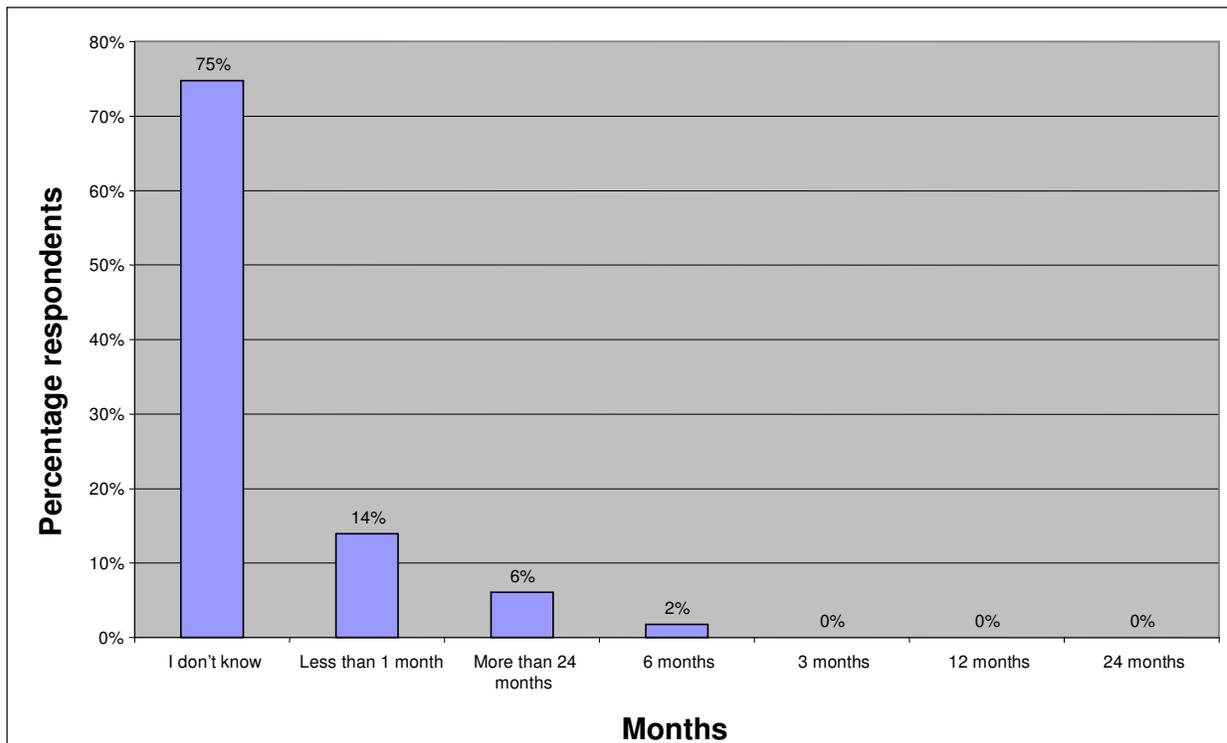
Forty one percent of users want to speak to someone responsible whom they can trust (like their parent/guardian/teacher/close friend) about a nasty experience on MXit. Sixty five percent of users would advise others to make use of MXit.

4.3   Chat rooms

Fifty three percent of users have ever entered into a chat room on MXit and 95% ended up speaking to people whom they did not know before. Twenty five percent of these users shared personal information with a person in the chat room and 16% of them indicated that the things that they chatted about made them feel uncomfortable, awkward or uneasy. Fifty six percent of these users requested to meet each other. Of these users who requested to meet each other, 47% did not actually meet. Table 3 illustrates where users requested to meet each other.

Table 3: Places where users requested to meet

Shopping mall	38%
At home	18%
Club	3%
Other	3%

Other places included Grand West Casino and a friend's house.

While 81% of these users indicated that the person turned out to be who they claimed to be in the chat room, 33% indicated that they felt uncomfortable, uneasy or insecure with the person they had met.

5. Interpretation of results

5.1 Demographics

The respondents aged 13 and below constitute 48% of MXit users, of which 53% are male. Of those users aged above 13, 35% are male. It would, therefore, seem that the majority of the youth that are MXitting it are females aged above 13 years of age.

5.2 MXit usage

Fifty three percent of MXit users use MXit for 2 hours and less and it is likely to be during 18h00 and 24h00. The vast majority of these users' parents/guardians understand MXit and know that their children are using MXit. It, therefore, seems that the majority of users do not spend excessive time on MXit nor do they use it during school hours. This could be attributed to the schools' concerted efforts to curb the use of cellphones during school time. However, they might be using MXit when they should be sleeping at night.

While 41% of these users feel that they want to speak to someone whom they can trust about a nasty experience on MXit, the vast majority would advise others to make use of MXit. It is interesting that many of them are unsure as to how long they will still be using MXit. This could mean that MXit might not be as popular in the near future.

5.3 Chat room

More than half of the users have entered a chat room on MXit with a quarter of these sharing personal information about themselves. The majority of them chatted with strangers. Just as many users who requested to meet people whom they met in the chat room actually proceeded to do so, with the majority of that being in a shopping mall. A third of the users indicated that they were uncomfortable with the person whom they met.

6. Summary

Based on the findings, a profile of a MXit user is as follows: a female aged above 13 years of age, who is likely to spend 2 hours and less on MXit during 18h00 and 24h00. Her parents/guardians understand MXit and know that she is using it. She would advise others to make use of MXit but is unsure of how long she would be using it in the future. She would have entered a chat room, chatted to a stranger but not likely to have shared personal information about herself. She would make a request to meet someone whom she met in the chat room and it would likely to be in a shopping mall.

Based on this profile, the problem surrounding MXit does not seem to be as serious as reports seem to indicate. The age of the average user is above 13, and the use of MXit per day is two hours or less, where 30% of the total is actually an hour or less, is not the heavy usage indicated by some reports. More than ¾ of the total number of users indicate usage outside school hours, although this does include late-night sessions.

In contrast to the above, however, points of concern are:
   • a quarter of users have spent more than 8 hours on MXit in one particular day,

- nearly a third of users can not complete their daily work because they have been on MXit,
- nearly half of the users of MXit would want to speak to someone whom they can trust about a nasty experience on MXit,
- a third of those in chat rooms felt uncomfortable, uneasy or insecure with the person they had met and
- 18% of these users met at home.

7. Conclusion

Holloway & Valentine (2003) argue that if children use ICT in balanced and sophisticated ways, they can benefit from everyday uses of technology. They believe that used appropriately, the benefits that children can derive from the use of ICT far outweigh the negatives of contemporary moral panics about the risks from dangerous strangers on-line, the corruption of innocence by adult oriented material and addiction to this technology.

It would appear that as information technology and communication advances, it presents many opportunities to society. However, it also presents threats of abuse and exploitation by criminals and potential criminals. It could be a product of the human social dynamic and not necessarily that of the fundamental technology. Every year many motorists in South Africa lose their lives to motorcar accidents because of incorrect and inappropriate usage, yet we don't blame the motor manufacturers for the cause of those deaths.

Experts agree that the responsibility lie with parents. During the last decade parents have been confronted with the challenges that the Internet presents. Presently it is possibly the fear of what MXit could present that parents have to face. With the rapid pace at which technology is evolving, what technological fear awaits parents in the future?

According to van Niekerk (2007), a possible solution to the problem is relationship building and communication with children, encouraging them to participate in face to face activities, setting limits on cellphone use, making sure that children participate in setting these limits and deciding on consequences after abuse.

Perhaps the answer is a socio-technical approach. The developers of MXit, as well as society at large, have a responsibility to ensure that users, especially children, are not harmed when making use of this technology.

Further research should be done on social networking (of which MXit is only one aspect), including phenomena such as Facebook, YouTube and other similar social environments.

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