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Under The Thumb:

The Role of SMS in the

Forming and Maintenance of Adolescent Dating

Relationships

By

Jason Noble

A Thesis Submitted in Partial Fulfilment of the Requirement for the Award of

Bachelor of Communications (Honours)

At the Faculty of Communications, Health and Science

Edith Cowan University

Perth, Western Australia, Australia

Supervisor: Associate Prof. Lelia Green

Submission Date: August 31, 2004

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ABSTRACT

The use of the mobile phone is a ubiquitous feature of many an individual's social life within contemporary society. Given this, it is somewhat surprising that little academic research has been undertaken into its effects on the social and cultural lives of key user populations. In particular, the Short Message Service — SMS texting — is a mobile phone application that has transformed the lives of large numbers of adolescent city dwellers.

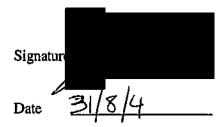
Moreover, teenagers and young adults, who represent the adolescent population, have adopted this mobile phone application and subsequently applied it to their social lives in ways that never would have been envisaged when it was first invented.

Specifically, the coupling of the portability of the mobile phone and text-based SMS messaging has resulted in the co-present sharing of the mobile phone and its contents with strangers or the familiar friendship circle as part of 'making a connection'.

SMS messaging is increasingly playing a role in the forming and maintenance of relationships. In particular, this communication technology supports a crucial preoccupation of adolescents, which is the forming of both dating and friendship liaisons. This thesis seeks to investigate the role SMS plays in the forming and maintenance of adolescent dating relationships, and also addresses elements of its role in relation to friendship networks.

DECLARATION

I declare that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education, and that, to the best of my knowledge, it does not contain any material previously published or written by another author or organisation, except where due reference is made in the text.



ACKNOWLEDGEMENTS

"If you don't have any semblance of a normal life, then you won't be able to write – and if you can't write, then you won't be there." Thom Yorke (1997)

Writing on SMS as a communications phenomenon has given me a privileged opportunity to investigate the social aspects of mobile phone technology. This opportunity would never have come to fruition if not for the time and effort invested in me by the following people:

My supervisor Dr. Lelia Green, for her patience, encouragement and guidance;

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TABLE OF CONTENTS

Abstract	1	
Declaration	2	
Acknowledgements	3	
Table of Contents	4	
1. Introduction	8	
2. Literature Review	10	
Introduction		
What has been Done	11	
'Real-time' Coordination of Social Lives	11	
SMS as a Social Tool	12	
What Needs to be Done	16	
Summary	17	
3. Methodology	19	
Introduction	19	
Macro Focus	20	
Micro Focus	21	
Justification of Approach	23	
Summary	26	

4. Contextualising SMS	28	
Consumption in the City	28	
Mobile Phones	32	
The History of SMS	36	
Personal Relationships	43	
Social Networks	46	
5. Findings: Mobile Phones and Dating	48	
Setting the Scene: Dating in the 'Noughties'	48	
The Forming of a Dating Relationship	49	
The Mobile Phone as the Portable Conversation Piece	49	
The Mobile Phone Number as the 'Virtual Address'	51	
Small Talk via SMS	52	
Communicating in the Same Physical Locale via SMS	55	
Locating a Person in the Same Physical Locale via SMS	58	
The Maintenance of a Dating Relationship	61	
'Self-disclosure' via SMS	61	

6. Findings: Screening the Self	64
Setting the Scene: Choice and Control	64
Screening out the Co-Present	65
Don't Talk to Strangers	65
Don't Stare at Strangers	68
Screening out the Remote	69
Control Over Interaction via Caller ID	69
Attitudes Towards SMS Messaging	72
Group Setting	72
One-one-One Setting	76
7. Findings: Issues of Trust	79
Setting the Scene: The Importance of Trust	79
Stored SMS Messages	81
To Keep or Delete?	81
Sentimental Attachment to Stored SMS Messages	83
Sharing with a Third Party Authorised by an SMS Recipient (But not by the SMS Sender)	86
Trust in the Dating Relationship	86
Trust in the Friendship Network	89
Male Friends Sharing in the Co-present	90
Female Friends Sharing in the Co-present	92
Commodification of Private Moments	97
Motivausa behind the Sharing of Private Moments	97

8. Conclusion	102
9. Further Research	110
10. References	113
11. Appendix 1	119
12. Appendix 2	121

INTRODUCTION

The mobile phone device is often constructed by the advertising media as a personal communications technology for the consumption of an individual owner. However, building from the research of Weillenmann and Larsson (2002) and Kasesniemi and Rautiainen (2002), with their respective studies on mobile phone use amongst Swedish and Finnish teenagers, there is now evidence to suggest that the mobile phone is also used in a collective context. Thus, notwithstanding the sharing of the moment with a remote other, the mobile phone also facilitates the sharing of the moment with the co-present.

Specifically, the use of one specific mobile phone application – Short Message Service (SMS texting) – is advantageous in many social settings, as opposed to a voice-call. The discreet nature of this text-based communication coupled with the portability of the mobile phone has resulted in SMS within a co-present context being applied to social settings in ways that would never have been envisaged when it was first invented. As Brown (2002, p. 208) comments:

The ways in which mobile devices are used is not entirely as expected and indeed reflects changes in patterns of behaviour that force some revisiting of predictions about what the future may hold.

With a tendency to view new technology in an opportunistic light, teenagers and young adults have adopted the SMS facility as their primary mobile phone application, and subsequently applied it to their individual lives as a social tool. Bearing in mind that teenagers and young adults are attempting to navigate the turnultuous period of life synonymous with being an adolescent, the mobile phone and SMS messaging supports a crucial pre-occupation of adolescents, which is the forming of both dating and friendship relationships.

It should be noted that despite myriad SMS applications now available, the scope of my thesis will be limited to the person-to-person exchange of SMS via mobile phones. Moreover, the linguistic content of SMS messages, including shortcuts and emoticons, are beyond the scope of this study. Having established these parameters, the primary objective of this thesis is to investigate the role of SMS in the forming and maintenance of adolescent dating relationships.

LITERATURE REVIEW

INTRODUCTION

The phenomenon of mobile phone use within contemporary Australian society is transforming our daily social lives. As Brown (2002) argues "They [mobile phones] impact how we organise our days and our evenings, how we work, and even how we make friends" (Brown, 2002, p. 3). Fundamentally, the mobile is a social tool that is increasingly being used for the coordination of an individual's social life. Arnold and Klugman (2003) argue that a fundamental driving the use of mobile communication devices is "users acting out of particular contexts to establish and maintain relationships (Arnold & Klugman, 2003, p. 48). Mobile phones are coordinating the forming and maintenance of dating relationships, and concurrently, the forming and maintenance of friendship networks.

However, despite the impact that the mobile phone is having on our social lives, "there is but slight academic interest in the social aspects" (Katz & Aakhus, 2002, p. 3). The social aspects of greatest importance to this thesis are the sharing of mobile phone communications with the co-present, and the use of mobile phones in the forming and maintenance of dating relationships.

Notable exceptions to this dearth of literature in researching the social aspects of mobile phone use will be discussed shortly. Additionally, SMS as a specific mobile phone application will also be addressed. By coupling these two areas of previous mobile phone study, theories, concepts and insights will be highlighted. I intend to borrow and build from these to construct my thesis: that SMS plays a significant role in the forming and maintenance of adolescent dating relationships.

WHAT HAS BEEN DONE

'Real-time' Coordination of Social Lives

Ling and Yttri (2002) argue that the mobile phone is a tool for the coordination of our social lives in two ways: "microcoordination (instrumental) and hypercoordination (expressive)". The mobile phone use in the context of 'microcoordination' makes it possible to coordinate meetings of a spontaneous nature. Moreover, arrangements to meet at a specific time and place need not be so rigid, as the agreement may be adjusted as the need arises (Ling & Yttri, 2002, p. 139). This spontaneous coordination and readjusting of social meetings has been made possible as the mobile phone "allows for nearly continuous and ubiquitous communication under transport [conditions]" (Ling & Yttri, 2002, p. 147).

Furthermore, taking into account the 'transport' component of this relationship between the user and their phone, Caimcross (1997) argues that the mobile phone allows better use of travelling time (Caimcross, 1997, p. 7). This may then be applied to not only public and private motor transport, but even to the transportation of a pedestrian navigating a congested city. The result of this coupling of communication and transport could be conceptualised as a 'real-time coordination system'.

Consequently, because information can be updated in real-time via the mobile phone, the need to plan anything minutely is negated (Townsend, 2002, p. 71). To reiterate, 'microcoordination' via the mobile phone facilitates spontaneous readjusting of social meetings in a 'real-time' context.

SMS as a Social Tool

The mobile phone in the context of 'hypercoordination' relates to the facilitating of emotional and social communication. In particular, the SMS application is used to send personal messages (Ling & Yttri, 2002, p. 140). Whilst SMS messaging plays a role within the context of 'microcoordination,' it also plays an increasingly 'hypercoordination' role within dating and friendship relationships.

Leaving aside the dating component for a moment, one use of SMS texting within a network of friends is to enjoy the social interaction with people in your circle who are not with you at the moment (Doering, 2002, p. 1). Whilst interacting with remote other/s via SMS may constitute the facilitating of emotional and social communication, these text messages may also be used for such purposes within the contexts of co-present interaction.

Weillenmann and Larsson (2002) have argued that the local interaction of the copresent with mobile phones is a relatively neglected aspect of mobile phone use, and they reported how the mobile phone had come to be used as a tool for local social interaction, rather than merely as a device for communication with dislocated others (Weillenmann & Larsson, 2002, pp. 92-93). Findings from their ethnographic field study of Swedish teenagers revealed that there were three types of co-present sharing: minimal, where mobile phone information was either displayed or read out, but did not involve the physical sharing of the mobile phone; taking turns, where several people physically handle the mobile phone to share content; and the borrowing and lending of phones, where teenagers handle each other's phones, using them for various purposes. The researchers concluded that the mobile phone is not just a personal device, but also a collaborative device (Weilenmann & Larsson, 2002, pp. 95-101).

Finnish teenagers' use of the mobile phone in the co-present as a 'collaborative' device was also supported by Kasesniemi and Rautiainen (2002) who found that the text messaging culture is a collective experience; in particular, it involves collective reading and composing (Kasesniemi & Rautiainen, 2002, p. 177). Additionally, as a consequence of teenagers' tendency to send and receive a significant number of SMS messages, technical limitations pertaining to storage capacity have come into focus. Interestingly, these researchers also found that many teenagers copied their stored text messages into diaries or special notebooks designed for collecting SMS messages as a result of this SMS storage limitation (Kasesniemi & Rautiainen, 2002, pp. 177-178).

In relation to storing SMS messages on the mobile phone, Harper (2002) comments that the mobile phone is a 'treasure box' for the storing of 'gifts' (Harper, 2002, p. 222). The sentimental value of stored SMS messages becomes an issue for many users given the finite storage capacity of the mobile phone. Moreover, this sentimentality may be exacerbated when users have a close relationship with their mobile phones: physically and emotionally (Cohen & Wakeford, 2003, p. 6), since a full message box prevents the receipt of further incoming messages.

Returning to the dating component of SMS use within the context of a co-present setting, Kaesniemi and Rautiainen (2002) found that trust could be indicated by allowing the other dating party to read SMS messages (Kaesniemi & Rautiainen, 2002, p. 181). This can also apply to the co-present sharing of stored SMS messages with friend/s. Moreover, in the early stages of forming a dating relationship, trust with friends takes priority over the dating relationship. Lewis (2001) comments that Finnish schoolgirls wanted to tell each other what happened on dates, as soon as the date had happened (Lewis, 2001, pp. 5-6). The implication of this is that the schoolgirls are using material from their dating relationships to strengthen their friendship bonds.

Notwithstanding that SMS messaging is relatively cheaper than making a voice-call, it is important to note that SMS communication may also be utilised in social situations where text is less intrusive, or more private; through to locations where it is difficult to hear a voice conversation (OECD, n.d. p. 66). Thus, in the case of the Finnish schoolgirls, it could be possible that interaction takes place within the date setting, whilst the dating party interacts with remote friend/s to provide discreet updates via SMS.

WHAT NEEDS TO BE DONE

The mobile phone as a social tool is generally thought of as a device for communicating with the remote other. However, there is now evidence to suggest that the mobile phone is shared with the co-present as a collective activity. In particular, this pattern of interaction has been observed with Finnish and Swedish teenagers by the respective studies of Weilenmann and Larsson (2002), and Kasesniemi and Rautiainen (2002). The latter study also identifies the sharing of the mobile phone with a co-present dating partner as an indication of the development of trust.

By thinking of stored SMS messages as captured moments of time in a dating relationship, and taking into account the sentimental attachment that some individuals have to their mobile phone, does it hold true that this attachment extends to their stored SMS messages? In addition to a potential sentimental value that a captured moment of a dating relationship represents, stored SMS messages may symbolise a social value. This 'social value' is realised through the action of sharing stored SMS messages with the co-present.

When dating relationship-based text messages are shared with co-present friends, there may be issues of trust that are raised in both the dating and the friendship relationship. Referring back to Lewis's (2001) research with Finnish schoolgirls, an existing friendship tends to take a higher priority than the early stages of a dating relationship. However, this dynamic could be explored by analysing issues of trust that manifest themselves in the forming and maintenance of a dating relationship.

Through the analysis of both aspects of a dating relationship - the development of the dating relationship and the implications for existing friendship networks - a greater understanding of the use of stored SMS messages may be gained. This would include investigating choices concerning what parts of a dating relationship to share with friends, and what parts remain private between the two dating partners.

SUMMARY

Despite the mobile phone increasingly facilitating the coordination of our daily social lives, there has been little academic interest in the social aspects of this technology.

Notable exceptions have been highlighted that reinforce the construction of the mobile phone as a social tool: by facilitating the 'real-time' coordination of social lives, and in particular, the use of the specific SMS application as a social tool.

Whilst the mobile phone is often perceived solely in terms of its use in communicating with the remote other, research into the mobile phone use of Swedish and Finnish teenagers has revealed that the mobile phone is also used to communicate with the co-present. What was once constructed as a personal and individual communication tool is also being used for collective purposes.

One specific collective use of the mobile phone is when stored dating relationship-based SMS messages are shared with existing co-present friend/s. This raises issues of trust not only in the friendship, but also in the dating partnership. Research into how stored SMS messages are shared highlights the importance of relationships in the lives of adolescents: in terms of both dating partnerships and existing friends.

METHODOLOGY

INTRODUCTION

Australia has experienced an explosive growth in SMS usage over the past three years (2001-04). This growth in Australia has mirrored that recorded by the first adopters of SMS, in that teenagers and young adults have been primarily responsible for the uptake of this mobile communication technology. Notwithstanding the plausible argument that a driving factor in SMS adoption is its relative cheapness compared with making a voice-call, I believe that a purely quantitative economic approach doesn't explain the whole phenomenon. When we seek a deeper understanding of how SMS is manifesting itself in contemporary adolescent society we discover for instance that SMS may offer the user advantages of being less intrusive, more private, and particularly conducive to specific social settings – when compared with making a voice call (OECD nd. p. 66). Thus, considering both the economic and social benefits of the SMS phenomenon, the application can be usefully analysed in terms of two avenues of investigation: the macro and the micro.

MACRO FOCUS

Preceding the clock striking midnight on New Year's Day 2004, 16.2 million SMS messages were sent in Australia. Such was the anticipated demand for SMS transmission at some celebration spots that market leader providers had installed portable base stations and boosted mobile phone capacity (Aussies Message 2004, p. 3). The dawning of the New Year is traditionally symbolised by the exchanging of kisses and hugs with the co-present at a given venue. However, by applying Ling and Yttri's (2002) conceptualisation of "microcoordination (instrumental) and hypercoordination (expressive)", new insights may be gleaned from the most recent New Year's Eve social interaction (Ling & Yttri, 2002 pp. 139-140).

Firstly, in an 'expressive' context, virtual hugs and kisses via the sending and receiving of SMS messages are exchanged with remote other/s. Secondly, SMS messages of an 'instrumental' nature may be used as a physical locating device, in order to make contact face-to-face at a busy venue. Moreover, the advantage of SMS for communication where loud background noise makes a voice-call impractical increases SMS traffic. Thus, by incorporating the expressive and instrumental elements of SMS messaging within the context of both remote and co-present interaction, the social forces behind the increase in SMS messaging on New Year's Eve 2004 start to become clearer. Having established the framework for this example of co-interaction with both the remote and the present, it may also be applied to other social settings.

MICRO FOCUS

The microcosm of campus life at Edith Cowan University, Mt Lawley is a useful context within which to investigate the aforementioned economic and social advantages of SMS communication. One rationale for investigating this social context is that I have been interacting in this setting for 5 years. Back in 1999, when I commenced my university studies, the mobile phone was barely noticeable on the landscape. Fast forward to 2004 and the consumption of mobile phone communication has become ubiquitous as a feature of daily university life. What has been personally observed in this period is: SMS messaging has become the primary mobile phone application in use on campus.

One explanation for this trend is that university students, on fixed or limited incomes, tend to opt for a pre-paid tariff system, as it gives them more control over their mobile phone expenditure. Because of the financial implications consumers on pre-payment plans use SMS messaging significantly more than post-pay users do (Budde Comm, 2003, p. 93). In conjunction with this economic incentive, SMS communication may be used where it is impractical to make a voice-call, for instance, within a lecture, tutorial or university library setting.

University students may use SMS messaging in an 'instrumental' context to coordinate their social lives on campus. Someone on campus can be invited to meet up spontaneously, with the meeting time and place negotiated in 'real-time'. When such coordination is initiated via SMS communication, the sender often assumes that the recipient's mobile phone is 'on-hand' and, consequently, that a response will be almost instantaneous. This can be an unfortunate assumption when applied to SMS messaging as there is one key technical limitation: finite storage capacity for stored SMS messages.

For some recipients with a full inbox, until such time that sufficient memory has been freed up through the deleting of some/all stored SMS messages, no incoming messages can be received. Moreover, there may still be considerable delay in receiving these new messages once sufficient memory has been freed up. The point here is that a receiver of an SMS message may have their mobile phone physically 'on hand' but a full inbox prevents them from accessing incoming messages. If this occurs during instrumental SMS messaging, there may be problems regarding the effectiveness of spontaneous 'real-time' coordination and co-locating on campus. This technical limitation also becomes significant when applied to stored SMS messages of an expressive nature: the sentimentally inclined face the added dilemma of choosing which relationship-based messages to keep or delete.

JUSTIFICATION OF APPROACH

The above lines of investigation offer one way to investigate my thesis that SMS plays a significant role in the forming and maintenance of adolescent dating relationships. Further, SMS communication can be analysed as one example of a relationship between technology and society. As Lucky argues (1995) "Technology shares an inter-dependent relationship with the complex, chaotic and resistant fabric of society" (Lucky, 1995, p. 154). If we are to go some way to "uncover and understand what lies behind any phenomenon about which little is known" (Corbin, 1990, p. 19), then a qualitative approach is required. Qualitative methodologies include the research tools of observation and interviewing (Patton, 2002, p. 11). Given a participant observation component, a wealth of information may be gleaned from the visible use of SMS as a mobile phone application in the daily social setting of campus life.

Applying an ethnographic model of participant observation as a form of qualitative research, an ethnographer "knows and accepts that their research is not valid in the same way that a scientific experiment would be. In particular, it lacks the element of repeatability as a test of validity" (Green, 2003, pp. 134-135). However, by making this position explicit the observations collected and disseminated by the ethnographer are put into an appropriate context.

A qualitative ethnographic research project addressing SMS use by university students between the ages of 18 and 24 in various stages of a dating relationship, and also those searching for a dating relationship, also requires interview data. Upon identifying potential research contributors fitting the above criteria, I then gave a quick summary of what I was researching and asked if they would be interested in participating. Following the recruitment of 10 male and 10 female interviewees, interviews were held on ECU Mt Lawley campus over a two-week timeframe. The duration of the interviews was approximately 20 minutes each, with a combination of open and closed interview questions recorded on Dictaphone tapes, which were subsequently transcribed by the researcher for analysis. (Please see Appendix 1 for an outline of the interview schedule).

At the stage of analysing the interview component of the ethnographic model, the two categories of the 'common' and the 'exceptional' were employed. The former identifies threads that recur, time and again, whilst the latter identify exceptions to these rules (Green, 2003, p. 138). Within this qualitative approach, I focused my lines of inquiry upon building on existing mobile phone research, allowing relevant themes to emerge (Corbin, 1990, p. 23). The emergence of my thesis, that SMS plays a significant role in the forming and maintenance of adolescent dating relationships, also lead to a related research endeavor: an investigation into the action of sharing stored SMS messages within co-present dating and friendship relationships raising issues of trust.

A desire to construct a holistic picture of SMS use indicates that inter-disciplinary research into communication is required. This inter-disciplinary approach was adopted, encompassing elements from the academic fields of Communications, Sociology, Social Psychology and Psychology.

The rationale for interviewing university students between the ages of 18 and 24 is twofold: firstly, this sample may indicate that the adolescent phase of life is becoming extended. This is relevant because much SMS research has concentrated upon adolescent users. One example is Ling (2001) who argues that the time between the end of obligatory schooling and the establishment of a 'routine' family and work life is perhaps one of the more nomadic of life periods. Thus, flexibility provided by the mobile phone fits well into this social context (Ling, 2001, p. 10). The possible extension of adolescence is indicated because students are still typically dependent on a range of support systems provided by others, compared to the experience of previous generations at the same age.

Secondly, young, affluent, and highly educated groups accept change, including new products, more readily (Hawkins, et al. 1994, pp. 414-415). They often view new technology as tools of opportunity and may thus apply innovative products to their lives in novel ways. Moreover, Ling (2001) builds from Rogers' (1996) discussion on the diffusion of technology, to argue that some of the most significant social dynamics take place after the purchase, as the technology finds a place in the life of the individual or their social group (Ling, 2001, p. 4).

SUMMARY

In order to provide a big picture analysis of the phenomenon of SMS use within contemporary society, a qualitative approach was adopted. The method used included a combination of participant observation and ethnographic research interviews within a macro and micro framework. The 'macro focus' investigates the phenomenon from an Australian perspective, whilst the 'micro focus' investigates the phenomenon in the specific social setting of Edith Cowan University's Mt Lawley campus.

Interviews were conducted with 10 males and 10 females between 18 and 24 years old in various stages of a dating relationship, and also included respondents that were searching for a dating relationship. Research data emerging from this process were analysed into the categories of the 'common' and the 'exceptional'. This approach helped refine a core component of my thesis: the idea that the action of sharing stored SMS messages within co-present dating and friendship relationships raises issues of trust.

CONTEXTUALISING SMS

CONSUMPTION IN THE CITY

Perth may be one of the most isolated cities in the world, but its residents are as immersed in the ideology of consumerism as any others in the West. Miles (1998) argues that the construction of everyday experience in an array of social realms is influenced by the role of consumerism (Miles, 1998, p. 147). On a daily basis, we are bombarded with information disseminated by various forms of media championing the benefits of this ideology. Fundamentally, the common selling point of consumerism is the notion of choice - we are conditioned to accept that greater choice equates to greater freedom for the individual.

However, the greater choice afforded to the liberated individual may, in fact, be as "constraining as it is enabling" (Miles, 1998, p. 147). This paradox of too much choice could apply to many areas of an individual's life. In particular, this conundrum may be applied to our personal relationships. Bauman 2001 argues that partnerships are viewed as things to be *consumed*, not produced; "they are subject to the same criteria as all other objects of consumption" (Bauman, 2001, p. 157).

In relation to a dating relationship, it is possibly the case that an individual within a partnership may be more inclined to dissolve a relationship than invest the necessary time and effort to help it survive at a time when their needs are not being met.

Moreover, the individual's motives in severing such a relationship may be strengthened by their perception of choice - there being 'plenty more fish in the sea'.

Living in a city is synonymous with having to interact with strangers in a co-present context. Avoiding interaction with strangers is "becoming increasingly difficult in a transient and mobile society" (Myers, 1999, p. 130). Strangers inhabiting a city provide a plethora of prospective dating partner choices, but we find it increasingly difficult to connect with them. As Tanner (2003) comments: "Our crowded lives are cluttered with contact but diminishing in connection" (Tanner 2003 cited in Gittens, 2003, p. 14). In response to this demand for connection, the integration of strangers in a city context has been made easier by a range of on-line dating services. Members of these on-line dating services are given access to a database of prospective dating partners to choose from, usually in exchange for a monetary fee. One significantly 'constraining' factor of consumerism is noted by Gabriel and Lang (1995) who argue that money is the final arbiter (Gabriel & Lang, 1995 cited in Miles, 1998, p. 149).

City dwellers who can afford dating services are no longer confined to sourcing their prospective partners from traditional settings such as a pub, club or party, as a plethora of choices are available on-line. One explanation for the surge in popularity of on-line dating services is that the younger generation which grew up with the Internet are now young adults, still mostly single, and perceive using the Internet "as natural as using a lung to suck in air" (Egan, 2004, p. 26). For some people, shopping for a relationship is much the same as shopping for a car. Indeed, 10 years ago Brown (1995) argued that "this consumer mentality is increasingly being applied [...] especially to prospective dating partners" (Brown, 1995, p. 98), and the Internet may be exacerbating this trend.

Regardless of how many prospective dating partners an individual has to choose from, personal fulfilment may never be attained. A comparison between who they have chosen to be with, and who they might be with, may play on their minds: a case of 'the grass is always greener on the other side'. Campbell (1987) comments about the daydreaming qualities of consumption, noting that "thinking about consumption is often more important than the act of consumption itself" (Campbell 1987 cited in Miles, 1998, p. 151).

This daydreaming awareness of multiple consumption possibilities is an important point when applied to the consumption of dating relationships, but also to consuming the mobile phone, where the next number in the phone memory could be the one to change your life. The phone is an enabler for the "pursuit of multiple social desires" (Jones, 1995, p. 33), and may facilitate the forming of dating relationships. (Essentially, the individual not only devotes time to the action of consumption, but also to the thinking about and planning of consumption.)

The physical and mental exertion required by maximal consumption may be too much for some individuals who feel overwhelmed by the sheer amount of choice they have. Whilst a choice between multiple alternatives may represent a kind of 'information overload' for some people when making a decision, for others it may lead to uneasiness about whether or not the right choice was made. "The very variety of choices is bewildering, and those who decide on one path or another do so with an awareness of the myriad other paths not taken" (Fukuyama, 1992 cited in Mazaar, 1999, p. 242).

MOBILE PHONES

Lull (2001) argues that the marketplace success of the mobile phone can be attributed to the individual perceiving the benefit of having more control over the way they communicate and construct routine experience (Lull, 2001, p. 135). The mobile phone is increasingly being consumed by individuals as a social tool. According to the International Telecommunications Union, the mobile phone has become a key social object, present in every aspect of our daily lives (ITU, 2004).

Most notably, the mobile phone plays an increasingly important role in the coordination of an individual's daily social life. For instance, The Australian Communications Authority has reported an increasing trend in the mobile phone being used as a substitute for the fixed land-line (Madden, 2004, p. 49).

One possible reason for this trend is that individuals within a household choose to coordinate their social lives exclusively via their mobile phone, as they have more control over their individual mobile phone consumption, and may be in continuous proximity to their phone.

According to an Australian study by Sweeney Research in Melbourne, and Spin Communications in Sydney, almost nine in every 10 16-28 year olds now own a mobile phone, with 88% of the respondents believing that technology is important because it allows them to contact people whenever and wherever they are (Canning, 2003, p. 5). Findings for this demographic indicate how pervasive mobile phone as a social tool in their daily lives. Building from these findings, it is beneficial to establish the relationship that an individual may have with their mobile phone. In scoping this relationship, it should be noted that the mobile phone is the quintessential example of a technology that bridges the boundaries between media, telecommunications and computing, blurring these separate functions in a process called "convergence" (Barr, 2000, p. 22).

Regarding the 'computer' component of the mobile phone, a fundamental technical driver of digital growth is that the circuit density of silicon chips is doubling every 18-months, resulting in a 35% increase in performance during the same period. This phenomenon is referred to as "Moore's Law" (Lightman, 2002, p. 104). Essentially, computers are becoming more powerful, and smaller. Addressing the mobile phone as a miniaturised computer, and not just as a phone, helps to forge a better understanding of the personal relationship individuals may develop with this singular device, and the dependency they may feel upon it.

There are three factors that contribute towards computers being an integral part of our lives, as Landauer (1995, cited in Nieuwenhuizen 1997, pp. 6-7) argues:

First, he says, people love gadgets ... His second reason is simple: the awesome power that computers undeniably place at our fingertips ... And finally he suggests, most worryingly, that computers are addictive.

Focusing on this last point, that computers may be 'addictive,' and applying this thinking to our relationship with the mobile phone, we can begin to understand how this one device has become so integral in our social lives: physically and psychologically.

In a physical context, researchers in the United Kingdom found the group most affected by reliance on their mobiles (labelled as "Cyborg"), could not cope if they were more than six feet away from their mobile phone. Psychologically, this same group was also found to experience depression and anxiety when experiencing a lack of calls (Prigg, 2004). This research suggests that the relationship that some users have with their mobile is not only close in terms of physical proximity, - having the phone 'on-hand;' but also close in a psychological context, the phone is constantly 'in the back of mind'.

According to a survey by Siemens, 25% of Australians scheduled all social events and engagements on their phones, with 39% returning home to retrieve their mobile phone if they forgot it (Dudley, 2004). What these statistics suggest is not only the inclination of the mobile phone user to have their phone physically close; but also indicate a psychological dependence. Not having this singular device in close proximity to the owner may represent a loss of control over the individual's coordination of their social life. Indeed, a mobile phone researcher in the United Kingdom has argued that: "Losing your mobile seems to equate to losing control" (Wakefield, 2003).

It can be suggested that some mobile phone owners are acutely conscious of their psychological dependence upon their mobile phone. As Harper (2002, p. 214) comments:

Unlike PCs, unlike even PDAs, mobile phones become highly personal objects, treated with as much fetishism and sentiment as one can imagine ...

Take them away and you don't get complaints that people will be inefficient, unable to get their work done, no; what you get is anger and fear.

To illustrate Harper's claim, I use the analogy of a remote control to describe the functionality of the mobile phone. Think of it as 'where's the remote?' for a technology that can only be operated with the correct remote control. This becomes 'where's my mobile?' for an individual's social life. Thus, we may not fully appreciate the value of a mobile phone as a social tool until it is lost, damaged or stolen. The mobile phone, in a way, starts to take on the characteristics of a social crutch.

THE HISTORY OF SMS

A Vodafone engineer reportedly first activated SMS to wish his fellow colleagues 'Merry Christmas' on December 1992 (BBC, 2002). In retrospect, this would be the moment that SMS as a technological innovation was first introduced into society. SMS is an asynchronous communication technology that facilitates the sending and receiving of text-based messages between mobile phones of up to 160 alpha/numeric characters. SMS was initially marketed as a business tool, with promotional images of business men using the mobile phone application (SMS History, 2001). As was the case with the mobile phone itself, the true potential of SMS communication would not be realised until the limited focus of the business tool made way for the bigger picture: envisaging SMS as a conduit for the coordination of our social lives, and especially for the social lives of adolescents and young adults.

It would not be until 1999 that an explosive growth in SMS ensued, with some European service providers reporting an 800% increase in the number of SMS messages compared with the previous year, 1998 (OECD, n.d.). Taking this statistic into consideration, it is prudent to ask two fundamental questions: firstly, what forces were at work in the 1992-99 period, between the invention and subsequent widespread diffusion of SMS; and secondly, who were the first adopters of SMS?

To answer the first question, from the time an invention prototype is first trialed successfully, to the point of ultimate diffusion into society, there is an on-going negotiation between the inventors' anticipated use of a new technology and how society actually uses that technology. The marketplace becomes a test laboratory for popular culture adaptations of technology. Essentially, this dynamic is one element of what Braudel (1981, cited in Winston, 1998, p. 11) describes as the "brakes and accelerators" on technological progress:

First the accelerator, then the brake: the history of technology seems to consist of both processes, sometimes in quick succession: it propels human life onward, gradually reaching new forms of equilibrium on higher levels than in the past

The 'brake' in the case of SMS texting was the voice-centric mindset of mobile phone service providers, viewing their companies as being in the voice-telephony business - whilst text messages were seen as the domain of a competitive 'paging' sector (OECD, n.d.). This being the case, mobile phones were viewed as being just 'phones' to talk on, neglecting the potential that existed for second generation mobiles, such as text and data applications.

In reference to the paging technology that was still in use when SMS was invented, owners of pagers could receive text-based messages but they could not reply to the sender of the message. Indeed, you had to make a voice-call if you wanted to reply to the sent pager message! SMS would, in due time, sound the death knell to paging technology through the simple fact that the receiver of a text message could reply to the sender via the same communication channel.

Two major 'accelerators' propelled SMS as an innovation with mass market potential: inter-network compatibility, and a combination of subsidised hand-sets and the prepaid service system platform. Firstly, the introduction of inter-network compatibility in 1999 meant that SMS text messages could be sent across and between mobile phone networks (BBC, 2002). As will be discussed in greater depth in the section on social networks, this interconnectedness is at the heart of the transformation of our social lives through ubiquitous communication networks.

Secondly, heavily subsidised hand-sets and pre-paid mobile tariffs were to mean lower mobile access prices (Budde Comm: Wireless Market, 2003, p. 92), and a reduction in barriers to adoption. New markets developed, particularly encompassing students, teenagers, and other low income earners.

Nonetheless, regardless of how state-of-the-art an invention prototype may be in laboratory conditions, it remains a prototype until such time as a consumer market within society sees merit in adopting the technology. To explore the second issue of who first adopted SMS en masse, it can be suggested that it was teenagers - one of the most disempowered segments of society - who turned the tables on traditional authority and parental figures via SMS communication in two ways: they were the first to develop the knowledge of the user-interface, and then the first to realise the potential of the text-based language communicated. Rheingold (2003, p. 25) comments:

The most obvious explanation for the key role of youth in the diffusion of mobile telephones and texting [SMS] is that adolescents have adopted a medium that allows them to communicate with peers, outside the surveillance of parents and teachers, at the precise time in their lives when they are separating from their families and asserting their identities as members of a peer group.

The initial user-interface of SMS as a mobile phone application was cumbersome to say the least. This was due to mobile phones not being primarily designed for text-based communication, with the ergonomics of both screen and keypad anything but user-friendly (Arnold & Klugman, 2003, p. 52). Screens are a critical component of the information society through the distributing of data, images and symbols (Barr, 2000, p. 21); and the processing of screen-based information is increasingly central to our lives. The mobile phone screen has physical limitations in relation to size and glare. By combining the limitations of the mobile phone's screen and keypad, composing an SMS message may require intense concentration in various social settings. To illustrate possible problems arising, a woman driving whilst sending an SMS message in 2001 hit and killed a cyclist in Geelong, Melbourne (Warning, 2004, p. 6).

Paradoxically, this difficulty of use helped motivate teenagers to invest the time and effort in strategies to overcome the complexities of the user-interface. Widing, Sheth, Pulendran, Mittal and Newman (2003) argue that technophiles invest substantial time and energy in learning about, acquiring and using new technological gadgets (Widing, et al. 2003, p. 204). Thus, the relationship that youth have with a new technology is often viewed as an opportunity for innovative change.

In contrast, traditional authority and parental figures may view change as an obstacle. In Finland, Nokia spent a lot of time studying children's use of new technologies, with Lewis (2001) observing that "The kids came to each technology fresh, without preconceptions, and they picked it up more quickly" (Lewis, 2001, p. 5).

One motivation for children developing a familiarisation with the mobile phone technology was a loophole that teenagers had found between the pre-paid system platform and the billing system. Until the loophole was closed, service providers were technically unable to bill pre-paid customers for SMS texting. In this time, teenagers exploited the situation by sending hundreds of thousands of free SMS messages (SMS History, 2001). It is plausible that this technical and accounting oversight resulted in a motivation for early adopters to overcome the awkward user-interface through the incentive of sending SMS messages at no cost. In effect, the lack of charge structure represented an unplanned low-cost trial period for the innovation, a factor which is conducive to the rapid diffusion of a new technology (Hawkins, et al. 1994, p. 416).

Furthermore, through the familiarisation with existing computer-mediated technologies such as Internet Relay Chat (IRC), teenagers utilised text-based abbreviations and emoticons (Baym, 1998, p. 52) to create a short-hand language. Consequently, Gordon (2002) argues that SMS has empowered the teenage user in ways that were not foreseen. Moreover, the empowerment of the 'disempowered' particularly related to SMS use as a coded language and helped accentuate the discrete nature of the mobile phone (Gordon, 2002, pp. 18-19).

It can be argued in relation to a 'coded language' that text-based SMS messaging served three purposes: the efficient composing of SMS messages through minimal key strokes; conveying of feelings/emotions through a text-based medium; and a language form that an authority or parental figure was unlikely to be able to fully decipher. It was also now possible for young adults to conduct conversations in the presence of others that couldn't be overheard (Rheingold, 2003, p. 4).

This focus on the first adopters of SMS helps to establish a historical reference point when analysing subsequent SMS adoption in Australia. The Scandinavian country of Finland has been identified as the breeding ground for SMS text messaging, surfacing in 1995 and subsequently discovered worldwide by teenagers in 1998 (Kasasniemi & Rautianen, 2002 cited in Rheingold, 2003, p. 16). Finnish teenagers first adopted SMS as their own and, ultimately, turned it into their "primary means of mobile communication" (Silberman 1999 cited in Townsend, 2002, p. 71).

Having established a background as to why teenagers were the first adopters of SMS - and how this situation came to be - I will argue that the adoption of SMS by

Australian society mirrored the first Finnish adoption process. The conjunction of the introduction of inter-network compatibility, subsidised hand-sets and pre-pay tariff options allowed the Australian youth market to drive the take-up of this mobile phone application in their home society. Indeed, between 2000-01, some Australian telecommunication networks reported 1000% per cent growth in SMS traffic (Mobile Phones, 2002, p. 51).

PERSONAL RELATIONSHIPS

"Arguably, interactions and relationships are central to most people's everyday lives" (Miell & Dallos, 1996, p. 2). Interactions within the parameters of adolescent friendships and dating relationships will be the focus relationships addressed here. According to Mazarr (1999), "interaction is the foundation of all existence, and the health and success of any organism or group can be measured first and foremost by the quality of its interactions (Mazaar, 1999, p. 91). Specifically, this section deals with the interactions that take place in the forming and maintenance of these relationships.

Fundamentally, the adolescent stage of human development is a tumultuous period, with Blos (1970, cited in Rutter 1980, p. 1) arguing:

The more or less orderly course of development during latency is thrown into disarray with the child's entry into adolescence [...] adolescence cannot take its normal course without regression.

The socio-emotional 'regression' that takes place is in relation to the adolescent pulling away from their parents in order to develop an independent identity for themselves. As Rice (1992) argues, it is essential that parents be relinquished as the primary objects of the adolescent's love, in order for an adolescent's time and effort to be primarily invested in the pursuit of firstly peer group membership, and subsequently a one-on-one relationship. In particular, the need for close friends becomes crucial during adolescence (Rice, 1992, pp. 8-13) as part of the transition from being 'the child' in 'the family'.

In conjunction with the forming and maintenance of friendship groups, adolescents are venturing out into the dating scene for the first time. Dating for an adolescent may be a means of personal and social growth, whilst it may also be an end in itself for the purpose of having fun (Rice, 1992, pp. 439-440). Prior to elaborating on specific interactions that take place in the forming and maintenance of a dating relationship, it can be argued that SMS plays an increasingly important role as a social tool for adolescents within friend and dating relationships and rituals.

The process of uncovering subjects in the initial stages of forming a dating relationship which two parties can use to engage in a more penetrating conversation is described as "small talk" (Knapp & Vangelisti 1996, p. 37). Whilst this search for points of shared interest and connection may take place in a face-to-face context; this is not a pre-requisite. Small talk is increasingly taking place in a text-based medium; SMS text-based messaging being the specific example researched, but others include email and IRC.

In order to develop and maintain a dating relationship, it is important to reveal intimate aspects about one's self to the other through acts of "self-disclosure" in order to develop trust and a sense of support and connection. (Myers, 2002, p. 457). The operative word here is 'intimate,' for establishing an intimate relationship requires many personal disclosures; thereafter, occasional disclosures are sufficient to maintain the intimacy (Knapp & Vangelisti, 1996, p.21).

Expressing personal information via self-disclosure is facilitated through effective communication channels. Communication is the primary means through which intimacy is achieved (Brown, 1995, p. 85). It can be argued that text-based SMS messaging not only constitutes a channel for 'small-talk' in the forming of a dating relationship, but also an opportunity for 'self-disclosure' in the development and maintenance of a dating relationship.

SOCIAL NETWORKS

As noted in the section on the history of SMS, the interconnectedness of communications networks is at the heart of contemporary society's transformation.

Castells (1996) argues that "Networks constitute the social morphology of our societies" (Castells, 1996, p. 469). It can be argued that the interconnectedness of mobile phone networks as a network of networks is increasing of significance as it is a communication network of vital relevance to our daily social lives. Hence, the mobile phone is implicated in the coordination of many individuals' social networks.

Rheingold (2003) argues that 'Reed's Law' is the coupling which drives the link between computer networks and social networks. Reed's Law is the observation that "when the network enables transactions between the individual nodes, the value is squared. When the same network includes ways for the individuals to form groups, the value is exponential" (Rheingold, 2003, p. 60).

The conjunction of individual and social coordination has resulted in mobile phones being used to create the new phenomenon of 'swarming' (Ronfeldt & Arquilla, 2001 cited in Rheingold, 2003, p. 162). For example, Perth teenagers and young adults recently coordinated the mass mobilisation of loose peer-to-peer networks to a specific physical location for the purpose of anti-social behaviour, which resulted from "learning of parties by mobile phones and text messages" (Pryer, 2004, p. 8).

Consequently, parties are gate-crashed by tens of strangers once the address details are circulated via networks of mobile phone users. Social relationships are being revolutionised at the level of both individual and group.

Having discussed the power of communication networks such as SMS texting to mobilise an individual's social networks, it is important to note that a new network occurs "as soon as you connect one computer to another" (Dertouzos, 1997, p. 325). In addition to the mobile phone facilitating the development of an individual's social networks, it opens up multiple new social networks. One particular aspect of this is the attachment of the mobile phone number to an individual owner. Fundamentally, new social networks are enabled partly because there is a low social cost in the action of an individual disclosing their mobile number. This reduces the barrier to new group formation and new network membership.

FINDINGS: MOBILE PHONES AND DATING

SETTING THE SCENE: DATING IN THE 'NOUGHTIES'

Living in the city we come into contact with many people in our daily travels. Despite this multitude of prospective dating partner choices, we may find it increasingly difficult to make a connection as one individual with another. Giddens (1990) asserts: "Once human relationships have become so abstract, people modify their means of interaction" (Giddens, 1990, pp 18-21). Prospective dating partners may be sourced through making a co-present connection facilitated by the mobile phone.

The focus of this chapter will be the role that the mobile phone plays in interaction with the co-present, with people who share the same space and time as their communicant does. Arguably, the mobile phone is a tool that facilitates choice in dating relationships. The exploration of the mobile phone as a dating tool will be broken down into four sections: firstly, the mobile phone and its contents; secondly, the mobile phone number; thirdly, the role that SMS messaging plays in the forming of a dating relationship; fourthly, and finally, the role that SMS messaging plays in the maintenance of a dating relationship.

THE FORMING OF A DATING RELATIONSHIP

The Mobile Phone as the Portable Conversation Piece

"First impressions are important – and are becoming more so as societies become increasingly mobile and urbanised and as contacts with people become more fleeting" (Berscheid, 1981 cited in Luil, 2001, p. 437). It could be argued that the mobile phone plays an important role in the forming of dating relationships in contemporary social contexts. This is because it reduces the barriers to communication and the emotional investment in the first social exchanges. One of the major barriers to introducing oneself to a prospective dating partner is the fear of rejection. According to romantic expert Rich Gosse (2004), initiating contact is hard because people are afraid of rejection, which constitutes the greatest obstacle to finding love (Gosse, 2004 cited in Magill, 2004, p. 45).

In some social settings the only thing we know we have in common with others in the co-present is that we all own a mobile phone – this may have been the technology that brought everyone together in the same place and time. Moreover, the mobile phone device, the contents within its memory and even mobile-related conversation can help 'break the ice' by fostering face-to-face interaction. This is one example of how "mobile phones are changing interactions between people who are near one another" (Harper, 2002, p. 212).

These days, instead of lighting a cigarette that we have given to someone (through sharing the contents of cigarette pack), we share the contents of our mobile phone to strike up a conversation (c.f Appendix 2). For non-smokers that may find difficulty in relating to this analogy, think of the mobile phone as being a portable 'conversation piece'.

The research findings reported here reveal that stored SMS messages of a humorous nature were often shared with the co-present as a way of 'breaking the ice'. Blake, one of the research participants, [all names changed to protect privacy], revealed he had shared "dirty pictures and graphics and little poems and things," with the co-present. This sharing can mean that a connection is made in face-to-face (F2F) interaction which is an example of what Hallowell (1999) calls the "human moment;" arguing that the world needs more human moments, especially since so much communication today is electronic and asynchronous (Hallowell, 1999 cited in Baker, 2000, p. 45). The 'human moment' facilitated by the sharing of stored SMS messages may also precede the disclosing of the individual's mobile number.

The Mobile Phone Number as the 'Virtual Address'

Arguably, for some adolescents and young adults, the 10-digits that comprise our mobile phone number form part of our identity. People familiar with these numbers may ultimately construct this sequence as belonging to a specific individual person. Recent legislation for mobile number portability recognises the importance of retaining this unique numerical identification. These days it is possible to switch mobile phone service providers whilst still keeping an existing mobile number by way of this number portability (ACA, 2003). In reference to the traditional fixed line number, calls to these can be switched through to be accessed by the subscriber's mobile phone so the proximity between a mobile and its users means that no call need ever he lost.

When we store a number into our mobile phone, I am of the opinion that we tend not to commit it to our own memory. Instead, we rely on the mobile phone to store the details. The importance we attach to the number may not be fully appreciated until we have to associate a mobile phone number with an individual person. (This will be elaborated on in the next findings chapter). The phone number in our stored mobile address book could be our primary – and perhaps only – point of remote contact with an other.

For an individual, their phone number could, in fact, be their "virtual address" (Negroponte, 1995, p. 166). Negroponte's quote refers to the Internet e-mail address, however I take the view that these days it might more appropriately be applied to our mobile phone number in many circumstances. Fundamentally, the mobile phone number - as it resides with the typical mobile phone - is more "here and now" (Cameron, 2003) than the Internet.

When it comes to forming a dating relationship, the easy part is getting someone's mobile phone number; it is what you do with it that counts these days. (This will be elaborated upon shortly when SMS messaging is introduced into the discussion.)

Small Taik via SMS

Given the fleeting nature of much contemporary social contact, less emphasis is placed on the first F2F interaction between a potential dating couple through a decreased emotional investment in short-term social exchanges. There is evidence to suggest that the emphasis is shifting from 'the introduction' (exchange of phone numbers) and is increasingly relocated in subsequent 'small talk' via text-based SMS messages of a flirting nature. According to an Australian Virgin Mobile poll nine out of ten teenagers use SMS to flirt, an activity which has been dubbed "textual intercourse" (Gauntlett, 2003, p. 8).

In this research study, findings revealed respondents' proclivity to use SMS in the formation of a dating relationship, as opposed to using a voice call. For example, Michael perceived SMS messaging as advantageous because "[It] bypasses the awkwardness and [I can] plan what I want to say; no stuttering, no squirms." This suggests that SMS messaging allows a greater degree of image control at a time of social anxiety and uncertainty.

Furthermore, the image that we portray in a text-based context can be edited and refined before it is communicated. This potential for polishing, however, means that a greater importance is placed on the first messages that are sent and received between two prospective dating parties.

Some people spend a great deal of time planning and rehearsing how to begin their first conversation [via a voice call] (Knapp & Vangelisti, 1996, p. 178). However, sending an SMS text message may be just as nerve-wracking as a voice call when the possible future of a dating relationship could hinge on what you write within the limitations of 160 alpha/numeric characters. In this regard, Matt admitted to sharing the burden with a friend by composing a first SMS message to a possible dating partner as a collective effort. He admitted: "I have actually had a friend there [in the co-present] and we think about what we are going to write before we actually write it to the girl I have just met."

The collaboration between Matt and his friend had the double effect of strengthening the mateship bonds, and reducing Matt's emotional exposure in the potential dating relationship. It also signaled to his friend that Matt was interested in developing such a relationship. (The collective consumption of mobile phone applications within friendship circles will be revisited in a future section: issues of trust). Michael revealed that he consults a dictionary when composing an initial message, adding: "[I] get some big words out for her, you know, just to impress her." It may be Michael's belief that an image of erudition helps to improve his chances of a reply from the prospective date.

As well as choosing whether or not to reply to an initial SMS message, Samantha thought it was beneficial to have time to think before answering "so you don't say something stupid and end up regretting it forever." SMS as a communication tool in the forming of a dating relationship consequently offers a range of benefits, especially in the case of a shy or introverted person gripped by social anxiety. It allows individuals (and possibly their friends) to be more measured in the image they project. Frith (1998) comments: "Identity is already an ideal, what we would like to be, not what we are" (Luli, 2001. P. 209), and the SMS message may consequently help reveal a more polished identity than the one in daily display.

Communicating in the Same Physical Locale via SMS

As has been discussed, the sharing of the mobile phone and stored SMS messages may be used to break the ice and foster F2F interaction in the forming of a dating relationship. Findings also revealed that the mobile phone can facilitate social interaction with the co-present in other ways. Specifically, the research investigated how SMS messaging might also be used as a way of communicating to someone else in the same physical locale using only one phone as a kind of 'electronic tablet' passed between them. This kind of messaging may facilitate the development of new forms of social interaction.

Aaron provided an example of using SMS messaging (sender and receiver in the same physical locale) for the purpose of paying out on someone without their knowledge. He claimed that he did this frequently: "usually if I am giving somebody shit behind their back when they are standing right next to me." This messaging took place between Aaron and another mate and constituted negative comments about the third party, standing next to them. If for argument's sake, 'A' communicates via SMS with 'B' – and the content of the message relates to 'C'; 'C' may be unaware that they are the butt of people's jokes. However, the dynamic is totally altered if any of the parties is removed from the location.

This is only one example of how SMS messaging in the same physical locale can open up new possibilities in social interaction. Such situations lead Mansell (2002) to make the claim that: "emergent forms of interaction that are being mediated by the new technologies are redefining our social interactions" (Mansell, 2002, p. 1).

Another example of new social interactions was offered by a different male respondent. He outlined a detailed scenario that may go some way towards explaining the potential implications of the ease with which a mobile number is given out, coupled with text-based 'small talk' and flirtation. This is Blake's recollection of what transpired:

I gave my mobile phone number out to a girl at a party. One week later, I received a voice-call to come over to a house. There were three girls at the house: two sisters and their neighbor. The neighbor was alone with me in the kitchen and asked to look at my mobile phone. I handed it to her. She wrote an SMS message and then passed the phone back to me. Following this action, we joined the two sisters in the bedroom (one of whom intermittently enters the bedroom setting but did not participate in the co-present messaging).

Two mobile phones were passed between the three of us in the bedroom, with the neighbor and me sitting on a couch and one of the sisters was on the bed. The deal was that you were handed a mobile phone, you read the SMS message on the screen, you deleted the message, you replied to the message, and then you passed the mobile phone on. (Note: SMS messages are not sent in the traditional sense, and the mobile phone screen takes on the property of a portable writing pad that is temporal).

Messages of a flirtatious nature were common and this took place over several hours (11 pm - 4 am). What I started to realise was that the girls were jealous of each other simply by seeing me pick up the mobile phone and reply to one girl, and not the other. Things were becoming heated and the neighbor said verbally that she was of age [referring to 16 as the age for consensual sex].

However, the sister on the bed informed me via SMS that her neighbor was only 13. Following this revelation, I terminated all contact and made a hasty retreat from the scene.

This is an interesting example on two counts: the use of SMS as a writing tablet shared between people who are co-present, and the screening out of a person in the co-present via SMS. (This will be further explored in the next findings chapter). Firstly, the above scenario as recollected by Blake details how SMS messaging within the co-present group may involve the physical passing of one or more mobile phones between people. As a result, the SMS function contributes towards text-based communication that is temporal: perhaps, in this case, described as being a writing/passing/deleting/replying process. Secondly, sensitive information was communicated via SMS pertaining to another member of the co-present, without their knowledge — an equivalent of the A/B/C situation discussed earlier. Thus, the two above examples provide a fresh insight into ways information may be communicated via SMS with people in the same physical locale.

Locating a Person in the Same Physical Locale via SMS

SMS messaging of an 'instrumental' nature may also take place in the forming of a dating relationship. However, 'real-time' social coordination works on the dangerous assumption that the mobile phone is always 'on-hand' to the user. Ultimately, coordinating dating arrangements exclusively through SMS messages raises the possibility that the future relationship may be jeopardised as a result of assuming that the other party always has their mobile phone available.

There are various ways in which SMS can contribute towards miscommunication in the forming of a dating relationship. Time-lag in the sending and receiving of SMS messages could be due to network congestion, poor reception or a full in-box, yet the sender tends to think that any communication is received instantaneously. According to the user's guide for the Nokia 3530 mobile phone, 'message sent' indicates that the message has been sent to the message centre, and does not indicate that the message has been received at the intended destination. This may not be understood by the user, who may be used to a seeming instantaneity of message reception.

It is consequently inappropriate to assume that a mobile phone is always easily accessible and, as such, that instantaneous reception and response to an SMS message can be expected. In this context some male respondents reported experiencing delays in receiving messages of an instrumental nature, resulting in plans being thrown out. Others reported developing a reliance on being able to continually check and crosscheck arrangements. For example, Owen recounted one incident of communication insecurity when he was without his mobile: "I left my phone at home and I arrived at the destination [date setting], and I didn't know if she wanted confirmation [whether a date was still taking place] or not".

Female respondents also reported experiencing problems as a result of delayed receipt of SMS messages. Michelle offers one example of plans that are made whilst in transit being thrown out: "not getting a response straight away like if you're driving somewhere and you have intentions [of] meeting somewhere." The potential complexity of SMS-based 'real-time' coordination is further compounded as punctuality becomes less of an issue for the young who have a more casual attitude towards time (Toffler, 1981, p. 264), since the meeting time and place is perceived as something of a moveable feast.

SMS messages of an 'instrumental' nature are a useful tool in the spontaneous coordinating of a date provided that there is a correct assumption that the would-be receiver of the message has their mobile phone 'on hand,' and is accessible. Failure to fulfill these requirements may result in plans being thrown out when time-sensitive messages are delayed for a variety of reasons. This may have serious ramifications on the forming of a dating relationship as a consequence of failed arrangements and miscommunication.

THE MAINTENANCE OF A DATING RELATIONSHIP

'Self-disclosure' via SMS

Vangelisti and Knapp (1996, p. 49) state: "Most people believe that time since onset of the relationship is positively linked to achieving intimacy, and accordingly a measurement of time serves as an indirect measure of intimacy" (Knapp & Vangelisti, 1996, p. 49). Once a dating relationship has moved past the forming stages, the expression of intimacy via acts of 'self-disclosure' becomes more of a factor in the establishing of a dating relationship.

Findings in this research indicate that acts of 'self-disclosure' are often communicated via SMS messaging. Whilst the content of SMS in the forming of a dating relationship might include comments that might not have been said if the communication were F2F – since it would be too revealing to do so – the same may hold true for the establishing of intimacy within a dating relationship. Essentially, it can be argued that SMS messaging of a flirting context gradually gives way to more intimate and personal messages.

Male respondents found that using SMS meant they felt more open to say what was on their mind compared to F2F in the formation phases of a dating relationship. For example, Owen commented: "You don't have to be as cautious about what you say." This suggests that SMS messaging might provide an opportunity for expressing intimacy that may be inhibited in a F2F context.

Lowered social inhibitions can cause problems as well as offer benefits, however. For example, one party in the dating relationship may fire off a vitriolic SMS message in the heat of the moment, with such communication unable to be revoked once sent, even if regretted. For example, Bek commented that: "Sometimes when I am upset or angry I have used a text message." The implication here is that, like email, SMS messages composed in the heat of the moment should be reviewed in the cool of the day.

However, as with the forming of a dating relationship, SMS messaging also allows the potential of greater control over the image being projected. Essentially, it gives time for respondents to formulate their thoughts more clearly before replying. For example, Christy found that "you are actually reassuring yourself that it is correct and readable." Similar to male respondents' perceptions, female respondents found that as the relationship developed messages became more personal. For example, Christy commented that if she was away from her partner for a period of time the SMS messages become "quite intense with what I have to say."

Another example of how SMS messages can be used in maintaining a relationship was recounted by Carmel who had had a big fight with her partner. After not speaking to him for the entire next day, she recalled that: "It was probably the first night we had slept alone since we had met and then the next morning I had two SMS messages on my phone which were along the lines of 'Look, I really fucked up last night and I am really sorry." What this SMS example illustrates is that a message was communicated which might not have been said F2F, and which provided a 'circuit-breaker' to defuse the stand off between the two dating parties.

Whilst consumption of the mobile phone and SMS messaging facilitates 'the pursuit of multiple social desires,' through an ability to initiate many social contacts at little emotional cost, the mobile phone caller ID capacity facilitates control over whom we choose to include/exclude in our lives in a co-present or remote context. Control over our choices will be the theme of the next findings chapter.

FINDINGS: SCREENING THE SELF

SETTING THE SCENE: CHOICE AND CONTROL

In the previous chapter it was identified that the mobile phone and its stored contents may be used to foster a F2F interaction with the co-present. In addition, such an interaction may result in the disclosing of the mobile phone number to a third party.

Taking into consideration that for many adolescents, the mobile phone number is their primary point of contact; the ease with which this contact point is disclosed opens up a multitude of prospective dating partner networks.

In contrast, this chapter introduces the mobile phone as a means of controlling who we choose to interact with. This screening out of the other applies both to the copresent and to the remote. Building from these two screening perspectives, I will then go on to ascertain attitudes pertaining to SMS messaging within a co-present group setting, and more specifically, a dyadic one-on-one setting. This latter social setting is of significant importance as this type of interaction is synonymous with the dating game.

SCREENING OUT THE CO-PRESENT

Don't Talk to Strangers

Concentrated masses of human traffic are an inevitable by-product of living in a city, which is further intensified on a twice-daily basis during the working week: the morning and afternoon 'rush hour'. During these times, transport networks are placed under considerable strain in an attempt to shift crowds of people predominantly to and from work (Cairneross, 1997, p. 238). This weekday routine can be constructed as our working lives being regulated by 'standardised time,' which is intricately involved with the public transport network (Toffler, 1980, p. 66), particularly for low income earners (such as most teenagers and many young adults) who can't afford their own cars.

I find the interactions of co-present commuters on rush hour public transport particularly interesting to observe because they have little or no choice about being a part of that setting. In particular, train timetables scheduled around standardised time result in escaping a stranger-filled platform only to encounter overcrowding and compressed space upon boarding the train. Bauman (1993) takes the view that our relation with strangers is paradoxical: "Socially distant yet physically close" (Bauman, 1993, p. 153).

In the rush hour train or bus setting, there are considerably fewer seats than commuters, and many travelers find the only remaining space is standing. Attempting to maintain a buffer zone between the self and the stranger becomes increasingly difficult when squashed together and thrown into contact with every turn of the bus or train. The person in the rush hour train accepts that body contact with strangers is inevitable, and that personal space has been invaded. As Hall (1966) observes, in a field of study he named "proxemics," four personal spatial zones can be constructed. Of significance here is the "intimate zone," the closest space to the body, associated with a 0-60 cm circumference (Hall 1966 cited in Forgas, 1985, p. 161). In relation to the rush hour train setting, this intimate zone is regularly compromised for commuters.

Having established the premise that riding the train or bus in the rush hour equates to strangers being in close physical proximity, commuters often endeavor to distance themselves psychologically by disconnecting from the co-present setting. This is facilitated by avoiding eye contact with others and through the consumption of media content. In reference to the 'personalisation of space,' Holmes (1997) states: "The personalization of space is an extension of a central principle of consumerism, the idea that autonomy and freedom can be obtained by consuming something - a commodity - which enhances our identity" (Holmes, 1997, p. 39). Individual consumption also removes the consumer psychologically from a social setting shared with strangers.

Whilst Holmes is correct in arguing that consumption of a commodity enhances our identity, I would also suggest that consumption serves as a means of control - the power to screen out strangers in the co-present. To illustrate how the personalisation of space drives consumerism in this context, Churchill and Wakeford (2002) argue that the Sony Walkman (first produced in 1979) played an "important part in introducing the mobile device to everyday life" (Churchill & Wakeford, 2002, p. 156).

25-years later, there is a proliferation of people who wear headphones in various social settings; consuming music, radio and voice phone communications. This private consumption of media content in public places also acts as a barrier against interacting with co-present strangers by "sealing off [the] senses from the social world" (Jones, 1997, p. 39). We will now turn our attention to the use of the mobile phone in its role of providing a buffer between the self and the stranger. In particular, the following section concerns the use of the mobile phone's screen, and of text-based SMS messaging.

Don't Stare at Strangers

Information gleaned from a person's facial expressions conveys the three major moods: "love, anger, or fear" (Morris, 1977, p. 74). However, it is the eyes that provide the most information; and in terms of maintaining privacy during co-present proximity to strangers - this means keeping eye-contact to a minimum. To be more specific, maintenance of psychological space entails the avoidance of the mutual gaze, or what Goffman (1963) calls "civil inattention" (Goffman 1963 cited in Murtagh, 2002, p. 84).

Screens are one means of control for avoiding the mutual gaze. Interaction with screens is becoming increasingly central to our daily lives, as they are a critical component of the information society. Holmes (1997) argues against the proliferation of a "screen culture," which discourages face-to-face recognition of others (Holmes, 1997, p. 40). From this perspective, it could be argued that the use of the mobile phone screen in the public arena offers an example of the screening out of strangers in the co-present via the composition of SMS messages.

Instead of smoking a cigarette, or peeling a label from your bottle of beer, the mobile phone offers an activity to do with your hands. Moreover, in relation to the creation of content via SMS messages, this activity requires intense concentration, and as such, the mobile phone screen becomes the user's focal point, making it difficult to interact with those in the co-present. (This will be elaborated upon in the third section, which addresses SMS messaging both in group and one-on-one settings).

SCREENING OUT THE REMOTE

Control Over Interaction via Caller ID

The technology of Caller ID was first introduced to fixed land-line telephones prior to becoming standard as an application for mobile phones. Now, when the mobile phone rings or vibrates, it is almost a reflex action to glance at the mobile phone screen before accepting or rejecting the call. This application allows us to have control over whom we choose to interact with, as it "provides call recipients with information to support the option of answering the phone, rather than a compulsion to do so" (Brown, 2002, pp. 6-7).

Stored phone number and contact details become important in the forming of a dating relationship, as will be discussed shortly. This importance can be further reinforced with an example of a mobile phone screen that flashes a colour for each category of contact: "Red for work, green for family, blue for friends and yellow [for] people you just want to avoid" (Screen, 2002, p. 10). Illustrating 'yellow people,' this category may indicate that some stored numbers and contacts on the mobile phone are solely for the purpose of identifying people with whom we don't wish to interact.

The technology of caller ID also applies when an SMS message is received, providing screen-based information about contact details and/or mobile phone number. It is important to note that if the sender's details are not one of your stored contacts, it will just display the number. In this case, attaching this number to an individual person is made more difficult. To give an example from the research findings that sheds light on this problem, Matt said: "I have actually stored names in my phone with just letters [as the stored contact] and months later, I [receive an SMS and] just don't know who they are. I have actually sent messages and they have replied back 'who is this?"" From this evidence, the importance of the text-based contact that is attached to a number becomes significant for future reference and interaction.

Furthermore, findings also suggest that there are incidences of 'signing your name' at the end of an SMS message, especially where someone is sending a message not from their own mobile phone (a mobile phone number is generally assumed to be attached to the owner of the mobile number). For example, Michael was of the opinion that: "I think it is good practice (to sign off at end of an SMS message) ... (otherwise) they're going to get a message from a number and not a person." Continuing with the problem of a message being from a number and not a person, Michael added: "If I don't know the number — I don't reply to them."

Keeping in mind the multitude of prospective dating partners sourced through the liberal disclosing of a person's mobile phone number, it can be argued that SMS messaging in the forming of a dating relationship may introduce a range of complexity in terms of identifying respondents. This relates both to the asynchronous nature of the technology and, in addition, potential identification problems borne from the dependence of screening incoming interactions via Caller ID technology.

ATTITUDES TOWARDS SMS MESSAGING

Group Setting

Before highlighting research findings about attitudes to SMS messaging within a group setting, it is useful to provide some specific examples of social settings where SMS messaging takes place. Moreover, these are examples where SMS may be the only communication channel and where a voice-call would perhaps have been impractical. For instance, respondents reported SMS activity in the social settings of movies, lectures, tutorials, etc.

One respondent claimed: "I have always used it in movies." While this may seem inappropriate, even more surprising was SMS messaging taking place at a funeral! Michelle, who witnessed the event, said: "I thought it was so rude [...] at someone's funeral." This latter example clearly illustrates that sending/receiving SMS messages to a remote other is made possible in social settings where a voice-call would intrude upon the co-present interaction even more. By ascertaining attitudes towards what constitutes acceptable/unacceptable SMS use, we may gain an increased understanding of the potential effects on the co-present group dynamics. This dynamic in the co-present being a "common fixture of everyday life" (Adler & Rodman, 1997, p. 7).

SMS messaging in university lectures and tutorials was deemed to be acceptable behaviour by a number of respondents, on the proviso that the mobile phone was on silent mode. Michael recounted that "Last year in high school me and a few of my friends sent text messages to each other across the classroom." This illustrates copresent SMS messaging as a type of traditional note passing, with the added advantage that there is less chance of the message being intercepted by the teacher as the message is sent discreetly and can be easily cancelled. Thus, SMS messaging is a 'discreet' communication as it can be carried out in silence (Green 2002, p. 39).

Matt took the view that SMS messaging within a group setting was "pretty rude." Elaborating on this comment, he provided the example of being with a group of mates in a pub or nightclub setting commenting: "You are supposed to be out socialising with your mates [...] not, you know, ignoring them [...] by spending half an hour text messaging." Bearing in mind the relatively small size of the mobile phone screen, this finding may indicate SMS messaging as a screen-based activity is perceived as antisocial, culminating in an "attenuated level of human association" (Jones, 1997, p. 39) within a group setting.

In the first findings chapter I provided two novel examples of SMS messaging within the context of co-present interaction. Example 1: SMS messaging in the same physical locale, whereby 'A' sends a disparaging message discreetly to 'B' relating to 'C'; the content of the message is in relation to 'C'. Example 2: SMS messaging in the same physical locale, whereby two mobile phones between three people were physically shared, a novel approach as to how SMS may be used, via a 'writing/passing/deleting/replying communication practice,' that is temporal in nature.

By combining these two novel applications, I will now attempt to illustrate the possibility of one or more people being screened out of a group who are physically co-present. Below is a record of my observation of such a situation noted while riding an urban passenger train:

A group of high school students were passing a mobile phone amongst themselves. One member of the group wrote an SMS message, but instead of sending it, the mobile phone was passed to another member of the group.

Upon closer observation, members of the group were using the portability of the mobile phone screen as an interface for the co-present sharing of text-based messages.

However, it was then discovered that one member of the group was excluded from this group contribution, much to her anguish. The conclusion that I came to was that she was the subject of the discussion taking place via the mobile phone screen and text-based messages. Strengthening the validity of this observation was the fact that I overheard one of the group members say 'We can't tell you who we think you like.'

This personal observation of an event that occurred in Perth, 2003, is testament to consumer technology being used creatively by segments of society in ways that were not foreseen by the developers and marketers. The interaction described here uses the portability of the mobile phone to construct a device which can be shared with the copresent group. This is also alluded to by Weilenmann and Larsson (2002), who found that: "The mobile phone itself is also shared between friends, borrowing and lending each other's phones" (Weilenmann & Larsson, 2002, p. 103).

Thus, by coupling the portability of the mobile phone device with the temporal nature of screen-based SMS messages, this hybrid communicative practice facilitates not only co-present group inclusion, but also exclusion [screening out] within the co-present group. As Morley and Robins (1995) comment: "the screen is not only the medium through which images are projected for us, but also the screen onto which we project our own fears, fantasies and desires" (Morley & Robins, 1995, p. 134). This may be as true of the mobile phone screen as it is of the film/TV screen.

Essentially, the only member of the co-present group who was not privy to the discussion was the subject matter of the discussion: a situation she seemed to find very difficult. (This may also have indicated that the person she supposedly 'liked' was also a member of that co-present group.)

One-on-One Setting

Having discussed attitudes towards SMS messaging in a group setting, and the effects on group dynamics, I will now focus on SMS messaging within a one-on-one or dyadic co-present setting. Adler and Rodman (1997) argue that dyads "are the most common communication setting" (Adler & Rodman, 1997, p. 6). Taking into consideration that a date setting generally fits this criterion, for the purpose of getting to know each other, this dyadic dynamic is of particular importance.

It has already been established that the mobile screen can be a physical barrier to a copresent interaction (and may facilitate the excluding of members within a co-present group). Taking into account potential ramifications on the dyadic dynamic, attitudes towards SMS messaging within a one-on-one co-present setting will be discussed. Nine of the 20 respondents in this study viewed SMS messaging to/with a third party within a one-on-one setting as intrusive on the F2F interaction. This implication is that if one of the parties is messaging, the other feels that attention is not being paid to them. In effect, they may feel a greater value is being placed on the interaction with a remote other in comparison with the co-present interaction. This is highlighted by Heath who explains: "If you are talking to someone, and also sending a message, then you are obviously not paying much attention to the person you are talking to [in the co-present]." In a similar vein, Kane was of the opinion that the SMS user interface was a barrier to the F2F interaction, claiming: "especially if you are talking to them and their head's down, you know, pressing their [mobile phone keypad], [you] definitely wonder if they're listening to you at all."

Milos believed it is good manners to say: "Excuse me, I have just got to write this [SMS] message," when in a one-on-one interaction. He is of the opinion that the same level of courtesy should be afforded when writing an SMS message as when placing a voice-call in an equivalent situation. With attitudes regarding acceptable/unacceptable SMS behaviours being quite diverse, it is possible that the two dating parties' attitudes to this communication practice are in stark contrast to each other.

So whilst SMS as a discreet communication practice affords the possibility of interacting with a remote other (and vice-versa) where a voice-call may have been impractical, the other member of the dating party may view this as being intrusive on the co-present one-on-one interaction. As a result, there may be negative ramifications arising from a communication practice now evident in increasingly numerous social settings.

Having established that attitudes vary relating to the acceptable/unacceptable practice of SMS messaging to a remote other whilst in a co-present one-on-one interaction, this begs a question in terms of a dating setting: who is the remote other being acknowledged through the SMS interaction to the potential detriment of the co-present dating partner?

Lewis (2001), analysing information concerning Finnish schoolchildren, believes SMS messaging is not only a dating tool in the sense of communicating a request for a date that an individual may not have been able to say F2F, but is also a communication channel "to tell each other what had happened on those dates, as soon as it happened" (Lewis, 2001, pp. 5-6). Thus, it is possible that information pertaining to the date is actually communicated to a remote other whilst the date is still in progress.

More importantly, in the early stages of a dating relationship, the existing friendship network may take emotional precedence over the dating relationship and moreover, one or both members of the dating party might willingly share stored SMS relationship-based information with a third party. SMS information that a dating partner chooses to share with a third party will be the focus of the final findings chapter: issues of trust.

FINDINGS: ISSUES OF TRUST

SETTING THE SCENE: THE IMPORTANCE OF TRUST

A degree of trust is necessary in our daily interactions with fellow human beings; be they, familiar friends, family or strangers. Trust is integral to the fabric of society.

Locke (1663) declared trust as being "the bond of society" (Locke, 1663 cited in Hollis, 1998, p. 1). In this findings chapter I wish to focus on how issues of trust manifest themselves in personal relationships. This will be a two-fold inquiry: issues of trust corresponding to the two members within a dating relationship; and issues of trust within a friendship.

As has been established in the findings chapter on mobile phones and dating, SMS-based 'small-talk' in the formation stages of a dating relationship would sometimes give way to SMS-based acts of 'self-disclosure,' as the dating relationship is developed and maintained. In short, one or both members of a dating party may feel an enhanced sense of trust in sharing intimate aspects about themselves via SMS messaging. This may progress to emotions conveyed in texting that may not have been expressed F2F.

Building from these premises, what is the value of such relationship-based SMS messages which are stored on a mobile phone? This question will be answered in two parts. Firstly, establishing the process of prioritisation - keep or delete - that takes place once there is no more space for new messages in the inbox. (It is important to note that no new incoming SMS messages will be accessible until sufficient memory has been freed up, and thus this maintenance process is inevitable.) Secondly, the rationale behind prioritising relationship-based SMS messages will be explored to investigate the value attached to these stored SMS messages by respondents.

Issues of trust are also raised when stored dating relationship-based SMS messages are shared with a third party (or, more specifically, with friends). Whilst such messages may be shared with a remote other, my interest lies with the co-present sharing, as it may imply a greater degree of control over who we share our stored SMS messages with. People who read a stored SMS message on a friend's mobile phone screen, for example, are not able to send it on to other people - or return it to the originator. Sometimes, sharing SMS texts with co-present others may occur with the knowledge and consent of the SMS message sender; on other occasions it may be 'a secret' between the receiver and their friends. This action of the co-present sharing of stored relationship-based SMS messages will be investigated with respect to the two members of a dating party, and also with a third party to a dating relationship.

STORED SMS MESSAGES

To Keep or Delete?

For most mobile phone users there comes a time when your mobile phone screen greets you with a flashing envelope or a message saying 'no space for new messages'. Once there is insufficient memory to deliver future incoming messages to your inbox, you are faced with two choices: to keep or delete?

Research findings revealed storage capacities that ranged from as few as six, to over 100, stored SMS messages. For the non-sentimentalists, this was a no-brainer: they deleted stored SMS messages indiscriminately. However, it becomes interesting to analyse the response of interviewees who were more sentimentally inclined. In these cases, regardless of what the storage capacity may be, choosing which messages to keep and which to delete entailed a labour-intensive process of scrolling, opening, reading and, most importantly - prioritising.

The majority of interview respondents prioritised which messages to keep. This is not surprising. Indeed, Wurman (2001) argues that prioritisation via the 'hierarchy' mode organises information by order of importance. This mode is used when you want to assign value or weight to the information (Wurman, 2001, p. 41). Before going into detail about respondents' motives for this prioritisation of stored SMS messages, I will provide some examples of respondents who were in opposition to this general approach.

Blake and James did not prioritise their SMS messages, giving their reason as being limited to storing only six SMS messages. Interestingly, Milos used to prioritise but not anymore claiming: "I don't get attached to them anymore." Similarly, Lisa said "I used to when I first started seeing my boyfriend, now I don't, now I just delete all messages."

The comments of Milos and Lisa may be indicative of their SMS messages perhaps taking on more of an instrumental nature in the maintenance of a dating relationship, as opposed to the romantic, expressive role they may have played in the forming of a dating relationship. Moreover, are there possible ramifications if one member of the dating relationship views stored SMS messages as more important than the other? This question will be addressed later when the sharing of stored relationship-based SMS messages with a third party, and the motives behind such actions, is explored.

Sentimental Attachment to Stored SMS Messages

As revealed earlier, the majority of respondents prioritised which messages to keep or delete. More specifically, it was found that stored dating relationship-based SMS messages received the highest priority. This finding prompted the question: why is such a high priority placed on relationship-based SMS messages? Notwithstanding the importance that an individual places on their personal relationships, to attempt to answer this question, we need to understand the ways in which stored SMS messages may be used.

Stored SMS messages were viewed by some respondents as souvenirs of moments in time pertaining to their loved one that could be reflected upon. Moreover, each message is dated and time-stamped, and attached to a text-based contact. For example, Karl illustrated this motive by saying: "there's certain times where you know maybe a [stored SMS] message will remind me of an important time." In a sense, the content of the stored SMS message may jog a memory back to that time and place, and that shared moment.

Intensifying the sentimental attachment to these SMS messages as symbolic representations of moments in time is the fact that they are irreplaceable. Michelle described how she felt distraught when: "the other night I deleted one of the first messages he ever sent to me by accident, and I was so angry, I was like 'noooo come back!" The point illustrated here is that once an SMS message is deleted, it is gone forever; that record of the moment in time can never be replaced.

Akin to jogging the memory of past moments (as is the case with a photo), the sentimental value of a stored SMS message is crystallised in the light of storage limitations. For some respondents, the sentimental value attached to such symbolised moments was priceless.

To put this claim into some kind of context, I will illustrate with Bek. Bek placed such high importance upon stored relationship-based SMS messages, coupled with her mobile's storage limitation of only 20 messages, that she created a secondary record of these moments in time. She said:

I prioritise the ones from my boyfriend [to keep] and delete other [non-boyfriend] ones, and then when I have only got boyfriend ones left [and no storage space in inbox for future incoming messages], then I have to sort through those ones to work out which ones I should get rid of: but I always write it [SMS message] down [on pen and paper] before I get rid of it. I keep the [boyfriend] ones that are most sentimental to me on my mobile phone because occasionally I still like to ... look at them.

This reported practice builds on the finding that the highest priority is given to stored relationship-based SMS messages. As there is only storage space for 20 SMS messages in Bek's inbox, the 'boyfriend messages' that are of the most sentimental value continue to remain on her mobile phone until such time that the next round of prioritising is enacted due to storage limitations.

These findings offer insights into the sentimental value that some people attach to their stored SMS messages. This emotional attachment may be described by using the analogy of a 'treasure box' (Harper 2002). The treasure box is a receptacle for items (love letters, photos, etc.) that embody some kind of sentimental value.

Applying this to mobile phone storage, Harper (2002) argues that SMS messages are a form of digital keepsake - or "gift". He goes on to say that: "these gifts need to be housed in the treasure box, the mobile itself" (Harper, 2002, p. 222). Having established the sentimental value that some respondents attach to their stored SMS messages, the motives behind a SMS recipient possibly sharing these relationship gifts from the treasure box with a third party will be discussed.

SHARING WITH A THIRD PARTY AUTHORISED BY AN SMS RECIPIENT (BUT NOT BY THE SMS SENDER)

Trust in the Dating Relationship

Building trust within any relationship is a gradual process. Similar to the notion of respect: a person can't demand trust, they have to earn it. In relation to the previously discussed sharing of intimate aspects about ourselves with others via SMS-based acts of 'self-disclosure,' SMS trust manifests itself by a person choosing to communicate private information to another in a text-based format. This text-based communication creates a written record of that moment and that information which passes between sender and recipient. This being the case, issues of trust are involved when sharing the mobile phone and stored contents with a third party.

According to a survey by Symantec, 62% of women and 39% of men would feel they could check their partner's SMS messages (Barker, 2003, p. 7). These statistics could be interpreted in two ways. Firstly, authorisation is given by a partner to the other party to go through their stored SMS messages, which may suggest a level of trust. However, what might be implied if one member of the dating partnership refuses to share their stored SMS messages with the other? Secondly, the stored SMS messages of a dating party may have been accessed without the authorisation of the message sender, resulting in a breach of trust between sender and receiver, even if the receiver has given access to a third party.

Access which is unauthorised by an SMS sender may reveal evidence of untrustworthiness, which may constitute a breach of the dating relationship. For instance, in a recently publicised case, the father of a 15-year-old girl student who was having an affair with a teacher, believed if her same-aged boyfriend had not discovered an explicit SMS message on the mobile phone, the teacher/student relationship would have continued (Calverley, 2004, p. 42).

As highlighted earlier, the two parties in the dating relationship may differ on the personal value they attach to their stored SMS messages. This is an important point when considering that relationship 'moments' may be shared with a third party, (in particular, with pre-existing friendship networks.)

When an SMS recipient within a dating relationship chooses to share text-based information with existing friends, it is not necessarily the case that this action has been authorised by the sender within the dating relationship. Nor does it always follow that both parties would agree on the relative importance of the message, or the motivation for sharing the message.

The sharing of relationship-based information with friends is an example of information not being "used only for the purpose for which it is acquired" (Green, 2002, p. 81). Thus, as noted earlier, the recipient of a stored SMS message may use the relationship-based information in a way that was never intended by the sender, via a kind of information 'dispersion'.

Whilst relationship-based SMS messages may be dispersed to a remote friend through the forwarding of the sender's text-based information, this relationship information may also be dispersed to the co-present, through the physical sharing of the mobile phone and its stored contents. Thus, "They don't use the [mobile phone] technology to communicate with each other over distance for example, but when they are side to side; sometimes they even exchange the device themselves" (Harper, 2002, p. 109). To share involves a degree of trust, and taking into consideration the possible sentimental attachment to the mobile phone and its stored SMS messages, trust becomes all the more important when choosing who to share our 'treasure box' with.

Trust in the Friendship Network

Like dating relationships, friendship networks are built on a foundation of trust; the development of which is a gradual process that takes place via interactions over a period of time. With this in mind, it is likely that a dating relationship in the early stages of formation has less trust invested between the two dating parties, than that held within existing friendship circles. As the dating relationship becomes more established, the levels of trust between the dating parties may become of greater significance than those within the existing friendship group.

Put simply, a member of a dating partnership may, at this stage, feel torn between their friends and their dating partner, in terms of time and commitment invested. On the one hand, the security of familiarity may resonate with friends, whilst, on the other hand, insecurity and uncertainty may symbolise the dating relationship. It is at this stage that loyalty to friends might take precedence over loyalty to the dating partner, a view shared by Boteach (2001) who claims: "our attachment to friends threatens to dull our longing for a long-term romantic relationship" (Boteach, 2001, p. 29).

This conundrum in the search for love - that it often involves breaking away from friends - was evident in television shows such as 'Seinfeld' and 'Sex in the City'.

What is particularly interesting in these examples is the conversational content of the friends' respective get-togethers: primarily focused on their individual dating lives.

These popular culture references to the tension between friends/lovers are useful for examining the possible rationales for sharing - or not sharing - stored relationship-based SMS messages.

Moreover, as a dating relationship becomes more established, and as trust is deepened, what might encourage a member of a dating partnership to share personal relationship moments?

Male Friends Sharing in the Co-Present

As discussed in the findings on using the mobile phone as a dating tool, a male respondent revealed that he had enlisted his co-present male friends as a group to assist him in composing an initial SMS message for a potential partner. Building upon this finding, friendship and dating partner loyalties may be developed and continued in parallel through the sharing of stored relationship-based SMS messages with co-present individuals.

The male findings research revealed that relationship-based SMS messages were sometimes used as a form of boasting in the friendship circle. For example, Matt claimed that: "I would flaunt it [stored SMS message with co-present male friends] like a trophy a bit." This behaviour could be indicative of the tendency for male friends to engage in competitive 'one-upmanship'. Altman and Taylor (1973) argue that when men talk with male friends they prefer to exchange adventurous or aggressive content (Altman & Taylor, 1973, p. 53). So, perhaps instead of boasting about the performance of their cars; they may boast about their performance with women. Displaying a stored SMS message to co-present male friends may offer evidence to strengthen a claim that an encounter has actually taken place. According to Milos, this is quite common amongst his male friends: "It happens a lot, yes."

In contrast to Matt and Milos, other male respondents exercised greater discretion when it came to sharing relationship-based SMS messages. For example, Wesley only shared SMS messages that related to his dating relationship with 'good' friends; "I'll show them but not send." Wesley here supports my earlier assertion that: sharing stored SMS messages with co-present friends may indicate a desire to keep a degree of control over the record of the relationship moments. Showing the mobile phone with the text on the screen does not 'give' the SMS to the friendship group. (Trusting, but not too trusting).

Thus, when Wesley pointed out: "they could forward it," he was indicating that if a friend is sent relationship-based information via SMS messaging, the message may be further dispersed to other members of a social network and used for purposes that the initial sender had not intended. Consequently, this suggests that Wesley is hesitant to fully entrust a relationship moment to a friend via SMS messaging, for fear of relinquishing control over who the sensitive information is ultimately disseminated to.

One possible reason for Wes's trepidation is the role of gossip within a social network. Gossip stems from spreading word about a group member's reputation (Rheingold, 2003, p. 129). Bearing in mind that salacious news tends to travel fast, the possibility of SMS messages being forwarded suggests the potentially rapid dissemination of gossipy information to other members of a social network without the authorisation of the SMS originator.

Thus, whilst a male may choose to share stored SMS messages with his co-present male friends for the purpose of boasting about reputation, control over the ultimate destination of this relationship-based information is diminished when the text is sent to a friend. The dispersing of relationship-based information to unauthorised parties may constitute a form of gossip, and in the maximally-embarrassing scenario may ultimately arrive back at the SMS originator - constituting proof of the dating partner's betrayal of trust. Having considered the male findings, the next section addresses the female findings.

Female Friends Sharing in the Co-Present

The female findings research also revealed that the majority of these respondents shared stored SMS messages with co-present female friends. However, what was interesting in the case of females was that there was clear evidence that some respondents actually gave authorisation to their close friends to read their entire store of SMS messages, through unfettered access to their mobile phone. This suggests a high level of trust in some of these friendships for such a practice to take place, and that the aim of the sharing was not to 'boast' about specific text messages, but to demonstrate a no-secrets closeness to the friendship.

This access to a friend's mobile phone and the stored contents was conditional, however. For example, whilst Christy said: "I find it intriguing reading other people's [stored SMS] messages," she stipulated that she only did this with her best friends' messages, and only with their permission. Likewise, Gabrielle reported that: "me and my friends go through each other's phones and read each other's messages [...] you wouldn't put anything too heavy in there you know."

In Gabrielle's case, the view may be held that the action of going through each other's mobile phone and the stored SMS messages is not that big a deal. Whilst the content of the stored SMS messages referred to by Gabrielle are unclear, and outside the scope of my thesis, it begs the question: how might issues of trust manifest if one friend shares their mobile phone and the stored contents, whilst the other fails to reciprocate the gesture? This might be part of a progression, for example, where the trust in disclosing personal information via SMS between two members of a dating partnership may ultimately take on a greater importance than reciprocity with a friend. Consequently, control would be exercised by one party to the dating relationship through the non-sharing of the mobile phone and its contents.

Notwithstanding the passive sharing of mobile phones and their stored contents, it was also found that friends would actively reply to an SMS message on another friend's mobile phone - as if they were the intended recipient! For example, Gabrielle referred to a particular friend by saying: "I have one friend who sort of drags out any sort of [dating] relationship very much [... to accelerate the dating relationship you're] pretending that you're her [... via text-based SMS] messages." Before examining this interesting finding, it can be argued that there is a degree of betrayal of trust inherent in the action of a third party opening an incoming SMS message on someone else's mobile phone. This is because, in the case of a Nokia handset (and perhaps, other handsets as well), the identity of the sender is not revealed until the SMS message is opened.

Thus, prior to the opening of the unidentified SMS, the only screen-based information is a notification that: 'I message received'. Moreover, unlike a voice-call (where relationship-based information is maybe disclosed once the identity of the caller is established), this is not the case with an incoming SMS message.

Gabrielle rationalised her actions in replying on behalf of her friend's relationship-based stored SMS messages by emphasising that: "me and my friend are really close." It is clear there is high level of trust between the two friends for such a practice to take place. However, it also became clear that replying on the behalf of a friend to relationship-based information was not always appreciated - even by the friend in question (let alone the SMS recipient.) This is illustrated by Gabrielle saying: "they [friends] don't like [it] sometimes [when] you keep [...] sending messages [from their mobile phone]."

What this finding may suggest is that the trust implicit in the practice of sharing each other's mobile phone can be cancelled out if one of the friends abuses the privilege. If this were to happen, the aggrieved friend may feel a breach of trust has taken place, with possible ramifications on other aspects of the friendship.

So, whilst there is the potential for a dating relationship to be inadvertently shaped through an SMS message being written and sent by the actions of a third party, it may be that this practice is only evident in the early stages of forming a dating relationship. As the dating relationship becomes more established, the practice may become less prevalent as a result of the dating relationship taking a higher priority than the friendship. In such circumstances an SMS recipient may start to place a higher importance upon their responsibilities to their dating partner than upon their role as a 'sharer' in their friendship circle.

Thus far, it has been established that both male and female respondents shared stored SMS messages with their co-present friend/s. In particular, the dispersal of relationship-based information to co-present third parties meant that the 'sharer' retained more control over the relationship-based texts than if they had forwarded such information via SMS messaging.

These findings in relation to the collective use of the mobile phone within both dating and friendship circles, support research conducted on Finnish teenagers that found: "Lovers often indicate trust in a romantic relationship by allowing the other to read their messages. Friends also tend to go through each other's SMS communication" (Kasesniemi & Rautiainen, 2002, p. 179).

It can be argued that, as the dating relationship becomes more established, the sharing of relationship-based SMS messages with co-present friend/s may decrease or cease altogether unless it remains the case that greater value is placed on trust within the friendship circle. Where a dating partnership progresses, it may result in more discriminating sharing of stored relationship-based SMS messages with co-present friend/s.

It has been established earlier that the majority of respondents prioritised which stored SMS messages to keep or delete. More specifically, it was found that relationship-based SMS messages were given the highest priority. Whilst this may indicate that a sentimental value is attached to stored SMS messages, I want to suggest the notion that information may not only possess a sentimental value but also a social value when shared with a third party to a dating relationship. In order to investigate the social value of disseminating relationship-based information, the next section will explore the commodification of private moments for personal gain.

COMMODIFICATION OF PRIVATE MOMENTS

Motivation behind the Sharing of Private Moments

In the previous section it was established that a number of respondents shared stored relationship-based SMS messages with co-present friend/s. Building from this finding, it is worth asking what possible motive lies behind this co-present sharing. In effect, is this an example of the commodification of private moments for personal gain? But in what form does the personal gain manifest itself to the person choosing to share these private moments with a third party? One way to investigate this is to identify possible reasons why people choose to participate in Reality TV: this may offer another form of commodification of 'the private'.

There seems to be no shortage of participants willing to lay themselves open to public ridicule in pursuit of their 15-minutes of reality TV fame. Reality TV is driven by audience ratings, and by each series needing to outdo the previous one. Consequently, the envelope is increasingly being pushed in terms of what private moments are made public as each new instalment of this genre is unveiled. Beaudrillard (1983) argues that "the most intimate processes of our life become the virtual feeding ground of the media" (Beaudrillard, 1983, p. 130). By focusing on a reality sub-genre that exploits the search for love, possible motivations behind participants sharing private moments for personal gain are revealed.

Firstly, private moments made public in the search for love may purely be for financial gain. For instance, the Reality TV show *The Bachelor* is an example of a reality sub-genre that lured contestants into the series on the premise of winning the prize of marrying a wealthy man. Secondly, these private moments may be shared with the public for social gain.

Arguably, participants forgo their dignity for the simple reason that they get their 15-minutes of fame by becoming a personality on television. Moreover, their 15-minutes of fame subsequently may be used in existing social networks, or in the forming of new ones. Gittens (2004) argues that our experiences have a greater social value than our material possessions. One reason, he believes, is that "We enjoy talking about our experiences much more than about our possessions [...] People's lives are the sum of their experiences" (Gittens, 2004, p. 16). To illustrate this, the motivations given by the *Big Brother 4* contestants as to why they applied, were almost unanimous: "The experience'.

From this, it can be argued that the SMS texting that is increasingly displayed to others on mobile phone screens may constitute a type of 'small-talk' with the copresent that facilitates a 'human moment'. Firstly, in raves and other mobile phone company spensored-locations, co-present strangers may share the experience of reading private texts via a large video screen as a collective activity. Secondly, copresent friends may share personal relationship-based experiences via an individual's mobile phone screen as a collective activity. These two examples of collective screen consumption may ultimately foster a co-present 'connection' with strangers and/or the familiar.

Moreover, in relation to the co-present sharing of texts among friends via the mobile phone screen, SMS relationship-based experiences of a personal nature are commodified for a social gain: manifesting in the forming and maintenance of social networks.

The notion of trust has already been discussed. Reciprocity has also been referred to briefly in relation to the dating relationship, and within the friendship. Using the specific examples given, I will re-introduce the concept of reciprocity and the role it may play within relationships.

Baker (2000) argues that "The reciprocity principle works because it is universal"

(Baker, 2000, p. 134). For example, in relation to the two parties in a dating relationship, issues of trust may be raised if an action of displaying trust is not reciprocated by the other. This may also apply to two members of a friendship group.

The sharing of the mobile phone and its stored contents with a co-present dating partner may similarly demonstrate a degree of trust. Failure to reciprocate - or return the favour - may raise issues of trust and reciprocity within the relationship. In relation to the two members of a dating relationship, failure by one of the dating parties to reciprocate the action of sharing their mobile phone and stored SMS messages may trigger a possible breach of trust, as suspicions are raised at the motivations behind at the refusal to share. Failure to reciprocate the above action within a friendship may also raise issues of trust.

Moreover, one of the motivations behind the non-compliance in sharing messages with friends could be that the stored SMS messages pertain to treasured relationship moments with a dating partner. Consequently, the stage may be reached where the dating relationship takes on a higher level of trust than the friendship. This is in contrast to the earlier formational stages of the dating relationship; where the friendship has the advantage of depth and longevity, compared with the new dating relationship. In each case, however, the commodification of the private for sharing with third parties in the co-present may be seen as a way of building intimacy, trust and/or status with those to whom the message is shown.

CONCLUSION

This chapter will summarise the arguments to date and offer possible avenues for future development of the research.

THE FORMING OF A DATING RELATIONSHIP

'Breaking the ice' through small talk may be made easier through having a mobile phone and its contents to share with a co-present stranger. Such a use of the mobile phone and its contents constitutes a portable conversation piece. At this point, a social connection has been made that has been referred to as 'the human moment'. The low social cost involved in giving out an individual's mobile number opens up a multitude of prospective dating networks among near-strangers and their friends.

Furthermore, SMS text-based small talk affords a greater degree of control over the first impressions made, and is preferred over a voice-call by most mobile phone respondents. This SMS-based small talk has been subject to novel applications in the context of a co-present group. Example: SMS messaging in the same physical locale, whereby two mobile phones were physically shared between three people, demonstrating a new approach to how SMS may be used, via a 'writing/passing/deleting/replying communication practice,' that is temporal in nature.

The emphasis on making a good impression with the sending of, or replying to, a first SMS message means that these text-based communications may often be composed as a collective exercise with existing friends. The idea of the mobile phone as an individual technology of communication is thus open to interrogation in teenage and adolescent networks.

The instrumental use of SMS messaging to coordinate spontaneous social meetings in 'real-time' becomes problematic if there is an assumption that all parties have their mobile phones 'on-hand' at all times. For some consumers this is the case, however, with a kind of separation anxiety evident whenever the user is away from their phone.

Another issue arising in evolving patterns of use is the technical limitation whereby the finite storage capacity for SMS messages prevents any new incoming texts until sufficient memory is freed up. If an SMS message is time-sensitive, this could mean that plans are thrown out due to such delays. Communication glitches can have ramifications when applied to the coordinating of initial dates in the formation stages of a dating relationship.

THE MAINTENANCE OF A DATING RELATIONSHIP

The research indicates that, as a dating relationship progressed, SMS-based acts of self-disclosure were communicated between the dating parties as they felt more able to say comfortably what was on their minds. Parallel with the use of SMS in initiating a dating relationship, control was afforded over what was communicated via SMS messaging as the relationship developed, since a message or reply could be considered before being sent. Moreover, content was communicated via text that may not have been able to be expressed F2F. Messages of a flirting nature gradually gave way to messages of intimacy as the dating relationship progressed. On other occasions, SMS messaging could also assume more of an instrumental role where expressive communication was only entrusted to a F2F interaction, or a voice-call.

The mobile phone and SMS messaging facilitates 'the pursuit of multiple social desires,' through initiating contact with, and then choosing from, a multitude of prospective dating partners. This is made possible by the low social cost attached by an individual to giving out their mobile number. The mobile phone may also facilitate control over who we choose to screen out of our lives in both the co-present and remote context.

SCREENING OUT THE CO-PRESENT

The co-present individual may be screened out of our lives via the mobile phone screen and SMS messaging. Example 1: SMS messaging in the same physical locale whereby 'A' sends a disparaging message discreetly to 'B' relating to 'C'; the content of the message being in relation to 'C' who is also co-present. Example 2: A novel communicative practice that facilitates not only co-present group inclusion, but also exclusion [screening out] within the co-present group, where an on-screen text message is visible to people to whom the phone is passed – but where the phone is only passed to a selection of the people present.

SCREENING OUT THE REMOTE

The management of a multitude of prospective dating partners may be facilitated via the technology of caller ID. Identification problems may be present where the mobile number is not attached to a text-based contact name, however. This also applies to identifying the sender of an SMS message. Committing a mobile number and text-based contact to the mobile phone's memory, but not our own memory, can also be problematic, since it may develop dependence upon screening incoming interactions via caller ID technology and the same numbers might not be recallable - or associated with the caller's name - in other circumstances.

ATTITUDES TOWARDS SMS MESSAGING

Within a co-present group setting there was a range of attitudes as to what constituted acceptable/unacceptable SMS use. For some mobile users it was acceptable to send and receive SMS in lectures and tutorials (provided the mobile phone was on silent mode); for many respondents SMS use was deemed an anti-social practice when catching up with mates at the pub, for example.

Within a one-on-one setting (which also represents the core dynamics of a dating situation), almost 50% of respondents felt that SMS use meant that attention wasn't being paid to the co-present parties, and that text messaging was intrusive. This is in contrast to SMS messaging being generally viewed as a discreet form of communication in most social circumstances.

STORED SMS MESSAGES

Given that SMS users inevitability have to delete some/all stored SMS messages, the majority of respondents had a system for prioritising which messages to keep or delete. Moreover, dating relationship-based messages received the highest priority.

These stored SMS messages represented captured dating relationship-based moments.

Furthermore, they were usually constructed as "irreplaceable" if accidentally deleted.

One interviewee commented that all her SMS storage would regularly be consumed by her relationship-based SMS messages. Consequently, when her storage capacity had been reached, she copied these messages into a book to keep a permanent record of them.

SHARING THE RELATIONSHIP WITH A THIRD PARTY

The sharing of relationship-based information with a third party can be constructed as a means of information 'dispersion,' and was often seen to take place in a co-present setting, affording a degree of control over whether or not the recipient of the confidence can disclose such information to other people. Moreover, the portability and the physical transfer of the mobile phone facilitate collective use in the co-present. Sharing relationship-based information with co-present friends from existing social circles raises issues of conflicts of trust between the dating partnership and the friendship circle.

MALES AND CO-PRESENT SHARING

Among some male respondents, it was deemed appropriate to share relationship-based information via the mobile phone screen with co-present male friends as a form of trophy. This formed one element in a trend of using stored SMS messages as material for boasting, that could be backed up with the evidence of the stored SMS as a written record.

However, stored SMS messages of a relationship-based nature that were displayed in these groups, were usually not forwarded. The latter means of dispersal could result in the forwarder of the message relinquishing control over how third parties chose to further disseminate this information. In particular, if the absent relationship-partner received had firm evidence that their partner was circulating personal and private texts among third parties, this could mean the end of the relationship.

FEMALES AND CO-PRESENT SHARING

The physical sharing of relationship-based information via the mobile phone and its contents among co-present female friends constituted another example of collective group building. Unfettered access to a friend's mobile phone and its contents (on the proviso that the owner of the mobile phone gave permission), symbolised a degree of trust between friends that is constructed as being of a higher priority (to these friends) than the keeping of confidences regarding the relationship-based information communicated.

SMS messages received on a friend's mobile phone were sometimes replied to by a third party on behalf of their friend. It is probable that this practice would stop once the dating relationship takes on a higher priority than the existing friendship network.

COMMODIFICATION OF PRIVATE MOMENTS

Stored SMS messages may not only embody a sentimental value but also a social value. The action of sharing these relationship-based SMS messages and/or the mobile phone that contains them raises issues concerning the commodification of private moments. Such sharing of private messages builds or compromises trust within the dating partnership and/or the existing friendship circle. Failure to reciprocate such displays of trust (as demonstrated by reciprocal co-present sharing of stored SMS messages and/or the mobile phone) may have ramifications for both of the social network and the dating relationship.

FURTHER RESEARCH

The use of text messages for sharing 'moments' with the co-present is increasingly facilitated by the constant presence of the mobile phone. The contemporary adolescent and young adult often has an 'on-hand' relationship with their mobile phone, and uses it as a social tool: physically and psychologically. Frequently, a co-present use of SMS operates as a location finder and/or a 'discreet' form of communication.

Firstly, in terms of SMS being used as a location finder in the co-present, SMS traffic is more likely in environments where there is significant background noise; given that a voice-call is not practical, and F2F verbal communication can often be drowned out (This point will be returned to shortly.) Secondly, SMS messaging - used as a discreet form of communication in the co-present - presents opportunities for novel forms of interaction. Building from the 'writing/passing/deleting/replying' communication practice detailed earlier, it is interesting how adolescents have combined the portability of the mobile phones and the temporal nature of text-based information to create a type of electronic writing tablet for sharing and collective use.

Furthermore, this 'discreet' form of communication can also be used to screen out member/s of a co-present (friendship) group. This raises issues of trust and exclusion as information that may relate to particular group member/s is withheld from said members, whilst the rest of the group are privy to the screen-based information.

Bearing in mind that issues of trust are raised when relationship-based SMS messages are shared with third parties such as co-present friend/s or the dating partner (and also in the non-reciprocation of such actions), this may be an example of where 'social capital' is built within one relationship at the expense of the other. Stone and Hughes (2002) argue that "Social capital can be understood as networks of social relations characterised by norms of trust and reciprocity" (Stone & Hughes, 2002, p. 1). 'Trust' and 'reciprocity' are major characteristics of the social capital constructed in active networks, and both are implicated in the sharing of stored relationship-based SMS messages. The importance of keeping this thesis within the scope of Honours research has meant that that value of social capital could not be explored in greater depth.

Nonetheless, this may well be a fertile avenue for future research.

Returning to the earlier point of background noise triggering increased SMS use in the co-present, this makes mobile phone communication more advantageous in particular social settings. It could be that future research should include a focus on pubs, clubs and party settings. Of particular interest would be the use of mobile phones in large-scale venues such as rave parties where SMS messaging is likely to combine both 'instrumental' and 'expressive' use. Arguably, in relation to the former use of SMS in group settings, 'swarming' behaviour is also manifested on smaller scales and this has yet to be investigated and theorised.

Moreover, SMS messaging may hold many potential benefits for the hearing impaired. For instance, Jodie Hodgett says SMS has revolutionised her life and opened a new realm of communication for many of WA's deaf, speech or hearing impaired people (Gauntlett, 2003, p. 8). It is particularly attractive since it is a bridging technology/practice passionately embraced by both the hearing and the hearing-impaired communities. From this perspective the investigation of mobile phone and SMS messaging within a hearing-challenged community could provide new insights into the potential of SMS communication for building relationships in the wider society, particularly in noisy social settings.

REFERENCES

Adler, R. B & Rodman, G. (1997). *Understanding Human Communication*. (6th ed.). New York: Harcourt Brace College.

Arnold, M. & Klugman, M. (2003). Mobile Phone Uptake: A review of the literature and a framework for research. Heidelberg: Heidelberg Press.

Aussies get the message. (2004, January 3). The West Australian, p. 3.

Baker, W. (2000). Achieving Success through Social Capital: Tapping the hidden resources in your personal and business networks. California: Jossey-Bass Inc.

Barker, G. (2003, October 11). Software surveillance. The West Australian Weekendextra, p. 7.

Barr, T. (2000). newmedia.com.au: The changing face of australia's media and communications. St Leonards: Allen & Unwin.

Bauman, Z. (2001). The Individualized Society. Oxford: Blackwell Publishers.

Bauman, Z. (1993). Postmodern Ethics. Oxford: Blackwell Publishers.

Baym, N.K. (1998). The emergence of on-line community in S.G. Jones (Ed.) CyberSociety 2.0: revisiting computer-mediated communication and community. (pp. 35-68). Thousand Oaks: Sage Publications.

Beaudrillard, J. (1983). The ecstasy of communication in H. Foster (Ed.), *Postmodern culture*. (pp. 126-134). London: Pluto Press.

Boteach, S. (2001). Why Can't I Fall in Love? London: Hodder & Stoughton.

Brown, B. (2002). Studying the use of mobile technology in Eds. B. Brown, N. Green and R. Harper Wireless world: social and interactional aspects of the mobile age. (pp. 3-14). London: Springer.

Brown, P.M. (1995). The Death of Intimacy: Barriers to meaningful interpersonal relationships. New York: Haworth Press.

(7th ed.) BuddeComm: Wireless market. (2003). NSW: Bucketty.

Cairneross, F. (1997). The Death of Distance: How the communications revolution will change our lives. London: Orion Publishing Group Ltd.

Calverley, A. (2003, October 29). Teacher sent pupil sex text. The West Australian, p. 42.

Cameron, D. (October 4, 2003). Text generation growing up online. Sydney Morning Herald. Retrieved August 19, 2004, from http://www.smh.com.au/articles/2003/10/03/1064988405807.html

Canning, S. (2003, October 9). Generation Y not love your parents. *The Australian*, p. 5.

Castells, M. (1996). *The Rise of the Network Society*. Masachusetts: Blackwell Publishers.

Churchill, E.F. & Wakeford, N. (2002). Framing mobile collaborations and mobile technologies in Eds. B. Brown, N. Greeen and R. Harper Wireless world: social and interactional aspects of the mobile age. (pp. 154-177). London: Springer.

Cohen, K. & Wakeford, N. (2003). The Making of Mobility, The Making of the Self. Unpublished paper, University of Surrey, United Kingdom. Retrieved October 6, 2003, from http://www.soc.surrey.ac.uk/incite/AESOP%20Phase3.htm

Dertouzos, M. (1997). What Will Be: How the new world of information will change our lives. London: Judy Piatkus Ltd.

Doering, N. (2002). Have you finished work yet? *Receiver Magazine*. Retrieved February 26, 2004, from http://www.receiver.vodafone.com/06/articles/pdf/05.pdf

Dudley, J. (February 12, 2004). Answering phone beats sex. *News Ltd.* Retrieved August 11, 2004, from http://www.textually/archives/002979.htm

Egan, J. (2004, February 7). Love at first site. The Age Magazine, pp. 26-33.

Forgas, J. (1985). Interpersonal Behaviour: The psychology of social interaction. Sydney: Pergamon Press.

Gauntlett, K. (2003, March 17). Mobiles ringing in a social revolution. *The West Australian*, p. 8.

Gauntlett, K. (2003, March 17). SMS adds chat to the silent world. The West Australian, p. 8.

Giddens, A. (1990). The Consequences of Modernity. Cambridge: Oxford.

Gittins, R. (2004, February 23). Pursuit of happiness in things you do. The West Australian, p. 16.

Gittins, R. (2003, September 22). Are we losing touch with what matters? *The West Australian*, p. 14.

Gordon, J. (2002). The mobile phone: An artefact of popular culture and a tool of the public sphere Convergence: The journal of research into new media technologies. 8(3), pp. 15-26.

Green, L. (2003). Towards an ethnographic methodology for cultural and media studies research. *Australian Journal of Communication*. 30(2), pp. 133-145.

Green, L. (2002). Technoculture: From alphabet to cybersex. Crows Nest: Allen & Unwin.

Harper, R. (2002). The mobile interface: old technologies and new arguments in Eds. B. Brown, N. Green and R. Harper. Wireless world: social and interactional aspects of the mobile age. (pp. 207-223). London: Springer.

Hawkins, D., Neal, C., Quester, P., & Best R. (1994). Consumer Behaviour: Implications for marketing strategy. Sydney: Irwin. pp. 404-425.

Hollis, M. (1998). Trust Within Reason. New York: Cambridge University Press.

Holmes, D. (1997). Virtual identity: communities of broadcast, communities of interactivity in D. Holmes (Ed) *Virtual politics: identity and community in cyberspace*. (pp. 26-45). London: Sage Publications.

Hppy bthdy txt! (December 3, 2002). BBC News. Retrieved August 11, 2004, from http://www.news.bbc.co.uk/1/hi/uk/2538083.stm

Jones, B. (1995). Sleepers Wake! Technology and the Future of Work. (4th ed.). Melbourne: Oxford University Press.

Kasesniemi, E.L. & Rautiainen. (2002). Mobile culture of children and teenagers in Finland in Eds. Katz, J.E. and Aakhus, M. *Perpetual contact: mobile communication, private talk, and public performance*. (pp. 170-193). Cambridge: Cambridge University Press.

Katz, J.E. & Aakhus, M. (2002) Framing the issues in Eds. Katz, J.E. and Aakhus, M. Perpetual contact: mobile communication, private talk, and public performance. Cambridge: Cambridge University Press.

Knapp, M. L & Vangelisti, A. L (1996). Interpersonal Communication and Human Relationships. (3rd ed.). Masachusetts: Allyn & Bacon.

Lewis, M. (2001). The Future Just Happened. London: Hodder & Staughton.

Lightman, A. (2002). Brave New Unwired World: The digital big bang and the infinite internet. New York: John Wiley & Sons Inc.

Ling, R. & Yttri, B. (2002). "Nobody sits at home and waits for the telephone to ring: micro and hyper-coordination through the use of the mobile telephone in Eds. Katz, J.E. and Aakhus, M. Perpetual Contact: mobile communication, private talk, public performance. Cambridge: Cambridge University Press.

Ling, R. (2001). Adolescent girls and young adult men: two sub-cultures of the mobile telephone. Unpublished paper, Telenor R&D. Retrieved August 18, 2004, from http://www.intermedia.uio.no/seminarer/mobilitet/ling.html

Ling, R. (2001). The diffusion of mobile telephony among Norweigan teens: A report from after the revolution. Paper presented at ICUST 2001 Paris, France. Retrieved April 29, 2003, from http://www.telenor.no/fou/program/nomadiske/articles/rich/(2001)Report.pdf

Lucky, M. (1995). Where to now? in J. Rennie (Ed) Key technologies for the 21st Scientific American: A special issue. (pp. 151-157). New York: W.H Freeman & Company.

Lull, J. (2001). Culture in the Communication Age. London: Routledge.

Madden, C. (2004, May 9). Home phones become relics. The Sunday Times, p. 49.

Magill, P. (2004, January 14). Love is threesome in gospel of Gosse. *The West Australian*, p. 45.

(Ed) Mansell, R. (2002). *Inside the Communications Revolution*. New York: Oxford University Press.

Mazarr, M.J. (1999). Global Trends 2005: An owner's manual for the next decade. New York: St Martin's Press.

Mercer, D. (1998). Future Revolutions: Unravelling the uncertainties of life and work in the 21st century. London: Orion Business.

Miell, D & Dallos, R. (1996). Social Psychology: Social interaction and personal relationships. London: Sage Publications.

Miles, S. (1998). The consuming paradox in *Consumerism as a Way of Life*. London: Sage Publications. pp. 147-160.

Mobile number portability. (n.d.). Australian Communications Authority. Retrieved August 11, 2004, from

http://www.aca.gov.au/consumer_info/fact_sheets/consumer_fact_sheets/fsc32.htm

Morley, D. & Robins, K. (1995). Spaces of identity: Global media, electronic landscapes and cultural boundaries. London: Routledge. pp. 125-146.

Morris, D. (1977). Man Watching: A field guide to human behaviour. London: Equinox.

Murtagh, G.M. (2002). Seeing the 'rules': preliminary observation of action, interaction and mobile phone use in Eds. B. Brown, N. Green and R. Harper Wireless world: social and interactional aspects of the mobile age. (pp. 81-91). London: Springer.

Myers, D. (2002). Social Psychology. New York: McGraw-Hill.

Negroponte, N. (1995). Being Digital. Rydalmere: Hodder & Stoughton.

Nieuwenhuizen, J. (1997). Asleep at the Wheel: Australia on the superhighway. Sydney: ABC Books.

Paltridge, S. (2003). *Mobile Phones: Pricing structures and trends*. Paris: Organisation for Economic Co-operation and Development.

Patton, M.Q. (2002). Qualitative Research and Evaluation Methods. California: Sage Publications.

Prigg, M. (2004, June 22). Official: one in three of us are mobile addicts. *Evening Standard*, p. 9.

Pryer, W. (2004, March 6). New set of problems for today's teenagers. *The West Australian*, p. 8.

Rheingold, H. (2003). Smart Mobs: The next social revolution. Cambridge, Perseus.

Rice, P.F. (1992). The Adolescent: Development, Relationships and Culture. Masachusetts: Allyn & Bacon.

Rogers, E. (1995), Diffusion of Innovations. New York: The Free Press.

Screen your calls. (2002, April 18). Australian Mobiles, p. 10.

Shaping the future mobile information society. (2004). International Telecommunication Union. Retrieved August 11, 2004, from http://www.itu.int/osg/spu/ni/futuremobile/

SMS History Zone. (n.d.). *Mobile SMS*. Retrieved August 11, 2004, from http://www.mobilesms.com/history.asp

Stewart, J. (2003). Mobile Phones: Cigarettes for the 21st century. University of Edinburgh, United Kingdom. Retrieved June 10, 2004, from http://www.homepages.ed.ac.uk/jkstew/work/phonesandfags.html

Stone, W. & Hughes, J. (2002). Measuring Social Capital: A standardised approach. Paper presented 2002 Australasian Society International Conference October/November 2002 Wollongong, Australia. Retrieved August 11, 2004, from http://www.aes.asn.au/conference/hughes.pdf

Strauss, A & Corbin, J. (1990). Basics of Qualitative Research: Grounded theory procedures and techniques. California: Sage Publications.

Toffler, A. (1980). The Third Wave. London: Pan Books Ltd.

Townsend, A.M. (2002). Mobile communications in the twenty-first century city in Eds. B. Brown, N. Green and R. Harper Wireless world: social and interactional aspects of the mobile age. (pp. 62-76). London: Springer.

Wakefield, J. (n.d.). Mobiles 'let you control your life'. BBC News. Retrieved August 11, 2004, from http://www.news.bbc.co.uk/1/hi/technology/2779619.stm

Warning on deaths by text. (2004, January 19). The West Australian, p.6.

Weilenmann, A. & Larsson, C. (2002). Local use and sharing of mobile phones in Eds. B. Brown, N. Green and R. Harper Wireless world: social and interactional aspects of the mobile age. (pp. 92-106). London: Springer.

Widing, R., Sheth, J.N., Pulendran, S., Mittal, B., & Newman, B.I. (2003). Customer Behaviour: Consumer behaviour and beyond. Melbourne: Thomson Learning.

Winston, B. (1998). Media Technology and Society: A history. London: Routledge.

Wurman, R.S. (2001). Information Anxiety 2. Indianapolis: QUE.

APPENDIX 1

Outline of Interview Schedule for 20 Respondents 18-24 Years of Age

The Forming of a Dating Relationship

- Q. Have you used SMS text messages to 'break the ice' by showing and/or forwarding stored messages?
- Q. Have you engaged in a period of SMS messaging before you met F2F again or voice-called them?
- Q. What was the content of these messages?
- Q. Can you provide any examples where SMS text messaging has played a part in miscommunication due to delayed/non response or misinterpretation?
- Q. Do you view terminating a relationship via SMS messaging as acceptable/unacceptable?

The Maintenance of a Dating Relationship

- Q. At present, what purposes do you use SMS messaging for when communicating with your partner?
- Q. Has the content of your SMS messages changed since your early messages with partner, and in what ways?
- Q. Has the frequency of SMS messaging over the course of your relationship increased, remained the same, or decreased, and why do you think that is?
- Q. Who initiates SMS messaging predominantly?
- Q. Over the course of your relationship, have you used SMS messages to bypass the voice-call, and why?

Public/Private

- Q. When you SMS message in public do you view your activities as private?
- Q. What public places to view as unacceptable to send and/or reply to SMS messages, and what have you experienced or witnessed personally?
- Q. Can you provide any examples of when you sent and/or replied to someone in the same physical locale as yours, and why?

- Q. Have you voluntarily shared any SMS messages to people in the same physical locale by either reading out or giving the phone to them?
- Q. Have you ever forwarded an SMS messsage to a third party without informing the sender?

Asynchronous Communication

- Q. Upon seeing flashing envelope or 'no space for new messages' warning, do you prioritise what messages to keep, and if so, what process is used?
- Q. What attracts you to SMS messaging as opposed to voice-calls?
- Q. What problems have you experienced when relying on SMS messaging as a communication tool?
- Q. Can you provide any examples where you have sent SMS messages from someone else's phone without informing the receiver of your identity?

APPENDIX 2

Mobiles phones: Cigarettes for the 21st Century

James Stewart

University of Edinburgh

This phrase has been my e-mail sig since 1999. It refers to the many similarities between mobile phones and cigarettes that I have noticed over this time. Many similarities become obvious as one thinks about the comparison. A phone is compared to the collection of individual cigarettes, the pack and also the matches or lighter. This page first came on line Jan 2003. Updated May 2004

Topics covered include sociology of cigarette use, social shaping of health scares, industrial structure and political influence, advertising, cultural images, gender and age issues etc.

Phones have replaced cigarettes as the thing people fiddle with.

When nervous, waiting to meet or hear from someone, or trying not to look out of place.

They are a distraction from loneliness, insecurity, nervousness,

They are used to fill time waiting.

Smoking or calling when waiting for the bus

We often have to go outside a building or room to use them.

We don't get reception, or, as with cigarettes, we are not allowed by explicit or implicit rules to use them indoors.

The little crowd of smokers and phoners is a common sight. However smokers are united by their activity, phoners separated.

They are displayed in public places.

When put on the table in a pub or café they have brand and model status

They must be near at hand for the next call or next smoke.

A group of smokers all get out their cigarette packs and put them of the table when they sit down. Phoners do the same thing.

They are associated with certain stereotypes.

The socially successful or the person everyone wants to know.

E.g. the sophisticated business person/socialite (advertisers preferred)

E.g. beautiful people having fun

Actually used by : many people

The spotty teenager on the bus

They are lent and borrowed.

Friends think nothing of letting each other make calls or take a cigarette

Except when there are hardly any left

One person with a phone or pack is enough for a whole group on an outing.

They are given as presents.

Expensive lighters and phones

They are seen as antisocial in many public or social contexts.

They both annoy other people around the us or.(survey)

There are social codes about when it is appropriate to use

They are highly social.

They are an essential part of flirtation [phone 1,2,3]

They are a point to start conversation

They are used to note phone numbers (the cigarette pack of course)

Teenagers want them - [newsarticle]

Use them to show off/build identity

They are often one of the few personal possession of young people.

Starting smoking and getting a mobile phone, were/are important boundary markers in growing up

They make/made up a key part of youth culture [smoke] [phones 12

They can be subversive [smoke]

They are banned in schools (phones), smoke

Catch 'em young

Mobile Phones appear to be reducing teenage smoking.

[article-Anne Charlton, Clive Bates]

Conspicuous, peer pressure and affected use associated with younger people who want to 'belong'.

Older people happy to reduce reliance

Some older people like to flaunt their use

Their use is <u>banned</u> in many of the same places because of social interference or technical interference, or danger of fire.

Theatre

Hospital,

Railway carriages (smoke, phones),

Petrol stations,

Parliament

They can cause fires - (phones by explosion)

They have highly disputed health issues.

There are government studies [phone 1, 2], [smoke]

Corporate denials [smoke] [phone]

Hidden patents and research [phone] [smoke]

There are a whole range a devices to make them 'safer' [phone], [smoke]

Companies do not like to advertise 'safer' versions as that implies existing versions are dangerous [smoke]

heavy users and children are (potentially) most at risk [phone]

They are dangerous to use when driving.

One takes ones eyes and mind off the road to initiate use, and to hold them [texting] [train driver] [car ban]

They both use the in car power socket (once called the lighter, more more likely to be where the phone plugs in)

They are addictive in several ways, and people try to control this.

People get desperate when they do not have them

They try and cut down use

Give up for the holidays etc,

Pretend they are not addicted

Spend too much money on them

You can count how many you use/make a day.

And count the cost.

There are important 'class' issues over use.

Different parts of the population prefer different brands,

Nokia = teen, young, more female

Ericsson = company people, engineers, boring men

Motorola = more sophisticated

Smaller version are:

More feminine (packs of cigarettes)

More discrete

Are for lighter users (number of cigarettes, battery size, functions)

Gender differentiating in branding and design [smoke], [phone $\underline{1}$, $\underline{2}$]

They both are associated with small pictures of popular culture.

- logos, cigarette cards

You go to the newsagent/tobacconist) to buy them (top up cards).

They have similar industrial characteristics.

The industries both have huge political lobbies [phones], [smoke 1, 2, 3]

They contribute lots of revenue to governments though tax [smoke]

The industries are both highly regulated [smoke]

The industry is made of multinationals, [phone], [smoke]

The growth markets are in the developing world, [phone], [smoke]

Smuggling and crime are both issues.

Cigarettes are smuggled into developed countries with high taxes

Stolen phones are smuggled out of rich countries and into poorer ones

Phone advertising has largely taken the place of cigarette advertising which has

been widely <u>banned</u>

Phone adverts as as obscure as cigarette adverts (lifestyle/symbolic rather than product focused) [1, 2]

Advertised as youthful, glamorous etc [smoke 12]

<u>bill boards</u>, magazines, sports events used to be dominated by cigarettes \neq now phones dominate.

Advertising to under 18s are forbidden, [smoke]

http://homepages.ed.ac.uk/jkstew/work/phonesandfags.html