

NEW MEDIA TECHNOLOGIES

AND

THE TRANSITION TO
PERSONAL PUBLIC SPHERES:

EXPLORING

THE CIRCUIT OF MOBILE
DEVICE USE MODEL

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abstract

In *Electric Dreams*, Ted Friedman (2005) reflects on innovations in technology that gave rise to the Sony Walkman. Employing Raymond Williams' (1974) notion of "mobile privatization" (26), using new media technology to transform the public sphere into a private space, Friedman concludes that, "the use of [personal mobile] technology [has the power] to insulate the individual from larger social groups, turning even public spaces into private experiences" (Friedman, 2005: 115). Akin to the rise of the Walkman, the current advent of the Smartphone highlights the privatizing potentials of new media technologies through technologically mediated experiences – an encounter that can only exist through the facilitation of a technological device. First introduced in *Television: Technology and Cultural Form*, Williams' concept of mobile privatization is a practical way of scrutinizing a society that is "isolating and connecting, atomizing and cosmopolitan, or inward-dwelling but outward-looking" (Groening, 2008: 110).

Through a series of qualitative interviews with Toronto mobile device users between the age of 18 and 34, this study uncovers a variety of explorations in examining the ways in which mobile device operators use their technologies; the primary places of use; how these technologies have negotiated place – primarily public spaces; and the dependability on the devices.

KEY WORDS: MOBILE DEVICES, PUBLIC & PRIVATE, ALWAYS ON, SMARTPHONES, TORONTO, *CIRCUIT OF MOBILE DEVICE USE*.

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introduction

*“To some degree, the **who** of communication is bundled with the **how** of communication; it is also bundled with the **where** of it. We are not just what we say but also how we say it and where we say it” (Harper, 2010: 181).*

In *Electric Dreams*, Ted Friedman (2005) reflects on innovations in technology that gave rise to the Sony Walkman. Employing Raymond Williams’ (1974) notion of “mobile privatization” (26), using new media technology to transform the public sphere into a private space, Friedman concludes that, “the use of [personal mobile] technology [has the power] to insulate the individual from larger social groups, turning even public spaces into private experiences” (Friedman, 2005: 115). Akin to the rise of the Walkman, the current state of the “smartphone society” highlights the privatizing potentials of new media technologies through technologically mediated experiences – an encounter that can only exist through the facilitation of a technological device. First introduced in *Television: Technology and Cultural Form*, Williams’ concept of mobile privatization is a practical way of scrutinizing a society that is “isolating and connecting, atomizing and cosmopolitan, or inward-dwelling but outward-looking” (Groening, 2008: 110). As a result of the proliferation of mobile devices, public space facilitates sensory overload, as it looks and sounds very different today than it did five years ago. Today, the modern mobile device user is talking or typing into a sophisticated device, be it in a restaurant, on a train or while they pound the pavement on their way to work.

The mobile phone has gone from being a marginal artifact to being the most widely diffused new media technology of social mediation. Through technological convergence, the modern smartphone introduced the traditional capabilities of a mobile phone while simultaneously embracing the properties of personal digital assistants and other assorted multimedia applications – including a camera, a web browser and a digital media player. The designation of “mobile phone,” is no longer adequate in describing the modern day smartphone. Blurring boundaries of hegemony between the user and the mobile device, both entities are equally shaped by the intrinsic properties of interactivity, immediacy of response, an amplified sense of control, and an imminence of connection (Gumpert & Drucker, 2007: 10). Richard Harper (2010) asserts that we live in a world where there is a *texture* to our communicative practices that is inherently manifested in the different ways by which users experience and exploit their communication technologies – particularly smartphones (Harper, 2010: 6).

According to the Canadian Wireless Telecommunications Association (CWTA), at the end of June 2011, Canadian wireless phone subscribers totaled over 25 million (CWTA, 2011).

Half of all phone connections in Canada are now wireless (CWTA, 2011). In early 2011, 75% of Canadian households had access to a wireless phone; accordingly wireless revenues in Canada totaled \$18 billion in 2010 (CWTA, 2011). Mobile broadband subscriptions in Canada totaled 5,668,142 (as of June 2010), which epitomizes 24.2% of total wireless subscriptions. Of the total mobile broadband subscribers, a dominating 86% were subscribers with a smartphone voice and, or data plan (CWTA, 2011). Accordingly, mobile devices have rapidly become one of the dominant communication and information conduits for most individuals in Canada. Couple this growth in mobile phone adoption with the wealth of laptop and tablet usage, and the rise in prevalence of wireless Internet access, and collectively these technologies form a virtually continuous network of connectivity, a state of perpetual contact (Katz & Aakhus, 2002), where an individual is always accessible and always on (Davis, 2010: 1).

Traditionally, Canada has seen slower cell phone adoption rates in comparison to other countries, attributable in part to the relative inexpensiveness of landline telephones. This telecommunications landscape however, has undergone (and is continuing to undergo) considerable change. According to the Canadian Wireless Telecommunications Association (CWTA), “the number of cell phone subscribers increased from 3.5 million in 1997 to 22.8 million in 2009” (CWTA, 2008). Ac-

according to the “2011 Cell Phone Consumer Attitudes,” as prepared for the Canadian Wireless Telecommunications Association (CWTA) “nearly half (48%) of mobile phone users between 18 and 34 years old have a smartphone. This group is more likely to have a smartphone compared to those 14 to 17, or 45 years or older. In the 18 to 24 year old group, smartphone adoption is 55%” (CWTA, 2011). As one of my prime devices of study, it is clear that the smartphone is becoming increasingly prominent, and accordingly the effects of this ubiquity need to be explored, especially where it pertains to the reshaping of the public sphere. Despite the fact that this type of research has been investigated in the past, (Crane, 2005; Davis, 2010; Groening, 2008; Lever, 2007; Wellman, 2006) it has yet to be done in Toronto, and accordingly not only is the research germane, but it is also timely.

In *Why Things Bite Back*, Edward Tenner (1996) illuminates the instabilities and fluxes of the reception of varying novel products and technologies alike throughout history. While history is replete with countless examples of these entities having been initially met with interest and fervor, unforeseen adverse consequences are often encountered, afterwards (Tenner, 1996; Baron, 2010). Professor of linguistics, Naomi Baron (2010) notes, “modern drugs save lives, but benefits must be weighed against side effects. Fast food is convenient, but often makes for a poor nutritional choice. Deep-water rigs increase the world’s access to oil but risk polluting our waters,” similarly, mobile technology, although efficient can actually be counterproductive for face-to-face engagements (2). Throughout much of the early twenty-first century, the proliferation of cellular telephones, personal stereo devices, handheld organizers and personal gaming systems triggered the birth of a new, digital era. This epoch has been defined by transportable, personal and prosaic communication and entertainment entities. Feasibly characteristic of the hastening tempo of modern life – one that is defined by drive-through mealtimes and services (banking, postal and pharmacy amenities alike) – we are carting our electronic media intake and its subsequent devices, with us, for use on the move (Robinson, 2003: 1).

For some, mobile devices may simply be a means to stimulate the desire to remain occupied while participating in daily tasks such as commuting, engaging in physical activity or simply alleviating boredom. Conversely, they also facilitate a distraction from the hectic and chaotic public, and permit individuals to, “shut out the world in a sense and create [their] own private space – space [they] can carry with [them] wherever [they] go, like a bubble; it’s mobile and privatized” (Streeter, 2005: 10). In Robert Putnam’s (2000) thought-provoking *Bowling Alone*, the political scientist contends that at the expense of technology, individuals are becoming progressively detached from one another. Noting the significant changes in societal and community living, Putnam maintains that this transformation can be attributed to the industrial revolution and the inclination to become increasingly independent individuals – a trend prominent over the last fifty years, throughout the Western world. As a result, he posits that the premises that underpin civic society are decaying as individuals become increasingly disconnected from one another, their communities

and society. Paradoxically, while increasing interaction, the ongoing communications upheaval has resulted in a steady decline in intimacy. Increasingly relevant to my own research, this trend is one that needs to be closely scrutinized, in order to further comprehend the impact of new media technologies on an individual level, and also its effects on the public realm.

PURPOSE OF RESEARCH

With the propagation of mobile technologies, several communication scholars have initiated a series of investigations pertaining to the uses of these technologies, particularly in relation to the significance of the entities in the user's lives (Katz & Aakhus, 2002; Ling, 2004; Baron, 2008; Turkle, 2010). Whereas research on the social impacts of the Internet is widespread and acute (Castells, 2001; Katz & Rice, 2002; Turkle, 1995; Wellman, 2006; Young, 1998) studies of mobile device usage, and consequences are limited and insufficient. I have chosen to explore mobile media because there is an apparent enigma to be investigated that has to do with the tension between communications overload and the subsequent desire to communicate, between the monotony that older technologies induce and the allure that exploring the properties of new ones cultivates, and the likelihood that communication inflicts upon us a need to respond, act and answer the communications of others (Harper, 2010: 5).

Despite the ubiquity of mobile devices in Canada, there have been few studies on how young people, predominantly in urban areas, use such devices. Hence, in this paper I will present the ways in which mobile device operators use their technologies; the primary places of use; how these technologies have negotiated place – primarily public spaces; and the dependability on the devices.

methodology

*“[Qualitative] data analysis is the process of bringing order, structure and meaning to the mass of collected data. It is a messy, ambiguous, time-consuming, creative, and fascinating process”
(Marshall & Rossman, 1990: 111).*

SAMPLING

According to the Canadian Wireless Telecommunications Association, “nearly half (48%) of mobile phone users between 18 and 34 years old have a smartphone. This group is more likely to have a smartphone compared to those 14 to 17, or 45 years or older. In the 18 to 24 year old group, smartphone adoption is 55%” (CWTA, 2011). Hence its widespread adoption of mobile devices, this group will be most revealing for data collection; accordingly, this particular study has concentrated exclusively on individuals between the ages of 18 and 34.

In order to fulfill my research demands, I interviewed seven participants from the Toronto area, between the ages of 18 to 34, who have identified as moderate to heavy mobile device users (See Table 1). Gary King, Robert Keohane and Sidney Verba (1994) assert that arbitrary selection is not commonly suitable for small sample research, and advocate for focused, purposeful choices in order to exploit disparities in the assortment of illuminating variables. Consequently, the sample was consciously handpicked to encompass a variation in regards to sex, age, class, income and level of education (King, Keohane & Verba, 1994; Rettie, 2007).

NAME	SEX	AGE	OCCUPATION	PHONE
Angelo	Male	29	Graphic Designer	Samsung
Elizabeth	Female	26	Supply Teacher	iPhone
Jessica	Female	21	Undergraduate Student	BlackBerry
Bruno	Male	29	Marketing Manager	iPhone
Alexandra	Female	23	College Student	BlackBerry
Isabel	Female	30	Prosecution Clerk	BlackBerry
Matthew	Male	23	Undergraduate Student	BlackBerry

TABLE ONE: *Subjects of Qualitative Interviews*

DATA COLLECTION

According to Norman K. Denzin and Yvonna S. Lincoln (2005), “Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry” (10). Similarly, Denzin and Lincoln note the aptitude of qualitative research in seeking “answers to questions that stress how social experience is created and given meaning” (10). David Silverman (1997) maintains that open-ended qualitative interviews aid the researcher in acquiring respondents’ insights on interaction and their justification of choices. The plan of study for my own research strived to do just that – to comprehend the ways in which participants renegotiate the boundaries of public and private space, through their mobiles and technologically mediated experiences.

As I am primarily interested in the individual experiences and stories of my participants, qualitative research will help to answer the most critical questions – the “how” and the “why” – using open-ended questions and probes. Stephen L. Schensul, Jean J. Schensul and Margaret D. LeCompte (1999) assert, “semi-structured interviewing and observations offer the most systematic opportunity for the collection of qualitative data” (164). In order to examine the ways in which mobile devices act as an extension of the self, reshape the public sphere and affect face-to-face interactions, the interview script had to incorporate a wide range of questions pertaining to both usage and public space.

research questions

“[Mobile devices] can even more effectively be used to shield oneself from wider surroundings by escaping into the narrower realm of highly familiar, predictable and self-controlled social relationships” (Geser, 2006: 10).

“Intimate talking, the social call of humans, is on the endangered behaviours list” (Locke, 1998: 19).

In James Harkin’s (2003) *Mobilisation: The Growing Public Interest in Mobile Technology*, the author posits “the sense of attachment that we feel towards our phones lies more in the imagined connection concealed within it than in the value of the actual connections it facilitates” (16). In contrast, Lee Humphreys (2005) explains that wireless technologies “may both privatize and publicize, atomize and collectivize” (383). As a result of these two contrasting opinions, only further research can explore the ways in which mobile technologies both affect and reflect the cultures that use it (383).

On a small scale, I seek to understand the usage patterns of contemporary mobile device users. I want to explore the ways in which these individuals make sense of their usage, constant availability and the mobile as an extension of their senses. As a result, there are several underlying research questions that I seek to uncover through my qualitative inquiry. Accordingly, there are several theories that inform these research questions that have been mentioned as a means of framing this paper.

I am particularly interested in exploring the role mobile devices play in individuals’ lives, and how this has changed over time. It seems likely that as technology improves, individuals would find more use for their devices, thus increasing the usage

over time. As such, my first research question is:

RQ1: *What motivates individuals to use mobile devices
and in what capacity?*

Where the first question asks “what” in regards to mobile usage, my second question investigates “how” in regard to the impact on social engagements. My primary interest lies at the intersection of what the ubiquity of mobile devices might mean for the public sphere, and accordingly for face-to-face engagements. Hence, my second research question asks:

RQ2: *Do mobile devices, specifically smartphones,
facilitate an increase, decrease or no change in social
interactions?*

My final research question is an intersection between my first two queries that strives to uncover any potential mutable relationship between the mobile device and the public sphere. My final question asks:

RQ3: *What is the relationship (if any) between mobile
device use and the renegotiation of the public sphere?*

My research questions are designed to provide substantial qualitative data that contributes to the extensive body of research suggesting that mobile devices hinder face-to-face interactions and intimacy, while augmenting other communicative interactions (Crane, 2005; Davis, 2010; Groening, 2008; Lever, 2007; Wellman, 2006).

My first and second question will be centered on uncovering the primary uses of mobile devices, and they will also explore the main locations of usage. These questions will primarily be used to explore the prominent notion of technologically mediated experiences in blurring the boundaries between private and public. This type of question is designed to approach not only why individuals adopt mobile devices in public places, but also more importantly what they are using the devices for, and how this is inevitably changing preconceived notions of the public sphere. The third question focuses on the structure of mobile devices as entities of privacy and individuality. Ultimately, this inquiry will strive to uncover the ways (if any) in which users transcend the intimate design of these personal devices, to surmount or conform to the isolating potentials of personalized media consumption.

the circuit of mobile device use model

“As a new type of ‘socialness’ emerges with a reconfigured social network grounded on distant connectivity [...] the structure of the public sphere faces transformation” (Lim & Lee, 2010: 244).

The aspiration for privatized experience has been exemplified extensively through the history of personalized media use. Timo Kopomaa (2004) muses, “as nomadic objects, mobile phones are a prime illustration of mobility, which is so characteristic of the postmodern way of life” (270). To explore and contextualize the everyday usage of mobile devices, and the subsequent impacts on the public sphere, it is crucial to not only pursue an inquiry into these devices, but also of their actual uses. Mobile devices have facilitated a change in human capacity “in terms of memory and concentration,” while also generating novel forms of “emotional experiences such as duplicity and anxiety” (Rippin, 2005: 1).

As is confirmed by the descriptive material and responses of the seven participants in my qualitative study, mobile devices have a strong effect on the reshaping of the public sphere, and subsequently on the decline of face-to-face interaction. Within these seven interviews conducted, about eight salient themes emerged through data analysis. From these themes, I have developed a theory that I have termed the

Circuit of Mobile Device Use Model (See Figure One). This five-component model explores the usage of new media technologies and the subsequent conversion to private public spheres.



Figure One: *Circuit of Mobile Device Use Model*

As Richard Ling (2004) asserts “the adoption of a mobile [device] means that we have to make adjustments and rethink how our ‘mental furniture’ is arranged” (23). Based on my findings, I have uncovered five major components associated with my proposed framework. In the form of a detrimental cycle built on dependency and reliance, these five themes help to understand the ways in which individuals and the public sphere alike have been impacted by the rise and ubiquity of mobile devices. The first step of the *Circuit of Mobile Device Use*, posits that as technology improves and becomes more converged, usage subsequently increases. Users admitted to using their devices more regularly, and for a wide variety of purposes, creating a sense of enslavement to the technology. Interestingly, this first step goes on to query ideas of hegemony – does the user control the device, or does the device exert a sense of control over the user?

As a result of the rise in usage and subsequent reliance on the device, users move into the second prominent theme of the research, experiencing a blur between where their body ends, and where the technology begins. As exemplified in all of my participants, mobile devices are used as an extension of the user and their senses. Whereas some used the device as an external memory tool, others saw the device as being an extension of their voices and arms to reach out to other individuals. In this

manner, the mobile shifts from a mere mobile device into a private, personal and portable entity through which the user experiences and connects with the world.

As the boundaries between the body-tool relation become blurred and the device is perceived as an appendage to the body, the user constantly has the device with them, resulting in a change to constant availability, anytime, anywhere. The notion of 'always-on' comes in three forms; the mobile is always on the user, the user is always on and available for perpetual contact, and the device is never powered off. As aforementioned, because of the prominence of mobile communication devices, human relationships have shifted from once being episodic to always-on.

As 'always on' individuals move into the public sphere, they subsequently reshape its properties, as they engage through technologically mediated experiences, thus turning public places into private encounters. The once sharp and distinct delineation of public has changed substantially as users practice a sense of place polygamy in restaurants, train stations, buses and coffee shops alike are now commonly colonized by the private experiences of mobile users.

Finally, as mobile users take to the public sphere, engaging in mobile conversations with absent others, and accordingly there is a decline in face-to-face conversation. Similarly, as these users engage with co-present others, the mobile device still has the potential to disrupt face-to-face interactions, and often takes precedence in these scenarios. Even if calls or notifications are deferred, they "will be acknowledged, the [device] will be touched, glanced at, apologized for" (Gordon, 2002: 18). Paradoxical, mobile devices promise communication over distances, "yet [they] interrupt communications between those who are face-to-face" (18). As users experience a decline in face-to-face interactions they subsequently turn to their devices as a means of entertainment, communication and filling dead time; thus beginning the cycle anew.

The *Circuit of Mobile Device Use Model* encompasses more than merely a series of discrete variables of mobile usage, but rather an all-encompassing bundle. The model exemplifies that modern mobile device usage is beyond conventional. Similarly, the model is compulsory in that it provides a platform for assessing not only usage, but its subsequent effects on interactions.

my mobile device usage has increased

"The current buzz-word is convergence. That means that everything will tend towards one common system which will cover all our needs for communications and entertainment" (Solyman, 1999: 294).

The starring theme of the *Circuit of Mobile Device Use Model* begins with the rise in device usage, as repeatedly described by users. The augmentation of digital communication at the end of the twentieth century has encouraged media organizations to distribute audio, text and visual media over a wired, wireless or fiber-optic connection. In a direct response to such, manufacturers of smartphones and mobile devices alike have amalgamated a variety of multi-faceted features to their respective devices that incorporate characteristics from three relevant technologies – the telephone, television and computer. This has been widely referred to as technological convergence.

One of the first inquiries asked participants to consider their personal mobile use today, and how it has changed since they acquired their first mobile device. For all of the participants, their current mobiles were not first generation; most users had been through three or four devices, prior to acquiring their current appliances. In all the cases, the present devices were far more sophisticated than the last. Accordingly, for many, their current mobile devices not only act as a central means of communication to the outside world, but have also replaced several other devices, including mobile browsers, cameras, alarm clocks and perhaps most important, personal messaging devices. Accordingly, Richard Ling (2004) notes, “mobile telephony is moving away from its traditional base into new, uncharted waters” (22).

When asked about why they had chosen the move away from conventional two-dimensional mobile phones and into the world of smartphones, all of the participants expressed the desire for a multi-functional device. In *Convergence Culture: Where Old and New Media Collide*, Henry Jenkins (2008) discloses an anecdote about attempting to purchase a primitive cell phone, one that would allow him to solely make phone calls. He candidly revealed that he “didn’t want a video camera, a still camera, a web access device, an mp3 player, or a game system. [...] [He] didn’t want the electronic equivalent to a Swiss Army Knife” (5). To Jenkins dismay, he was told by a myriad of mobile companies that single-function phones were no longer being manufactured, as there was no market for them – nobody wanted them.

TEXT & BROWSE VS. TALK

Perhaps the biggest changes seen in the last ten years in mobile technology involve the rise of the text message in lieu of phone calls, alongside the emergence of mobile browsing. Despite the fact that texting is perceived as a very personal, portable and private means of communication, it is often used in rather public places. Marsha Berry and Margaret Hamilton (2010) explore the place-making activity and seclusion afforded by text messaging. They note that while in public places, like trains or buses, “fellow passengers are not afforded the opportunity to eavesdrop of personal matters. [...] Texting is a form of place-making that preserves public face and places no expectations on others to ‘ignore’ an event that has just taken place or to assume a mask of not listening” (121).

Users were asked to consider what mode of communication was most favored,

and for what reasons. All of the participants expressed the desire to communicate primarily through text messaging and messaging utilities such as iMessage or BlackBerry Messenger. Naomi Baron (2008) asserts that the text message provides users the opportunity to communicate with personal correspondents, “while keeping a proper distance and sense of privacy with respect to bystanders” (132). The participants mused and documented the simplicity afforded by messaging utilities, primarily in its potential to connect individuals, whether they are communicating to check-in, make plans, or ask a simple question, while simultaneously avoiding the disturbance of proximate others.

“I just wanted a device that could pretty much do everything. It’s like a handheld computer” —ELIZABETH, 2012: 1.

Contemporary mobile devices and smartphones offer improved coverage, inexpensive and expansive subscription plans, and all-encompassing features, thus users are increasingly dependent on their devices to keep them connected on-the-go. Mimi Sheller (2004) posits, “rather than conversation being set aside as something one does at certain moments, for a delimited stretch of time, usually in private space [...] there is now a constant flickering of conversation” (49).

Where messaging was the preferred mode of communication among participants, most also commented on its ambiguous and often detrimental nature. Similarly, several of the other participants acknowledged tailoring their “mode of communication” selection to best fit the nature of the conversation. Although texting as a means of communicating trivial and minor details can be seen as easy and both cost and time efficient, it inevitably contributes to the deterioration of conventional conversation standards. Salutations, pleasantries and civilities that offer a sense of comfort, and work to inspire a sense of trust are absent in these interactions.

MOBILE BROWSER AS A GO-TO ‘PERSON’

All of the participants discussed the usefulness and self-sufficiency facilitated by the browsing capabilities of their mobile entities. In line with the heightened potentials of the contemporary smartphone, many of the participants, confessed to making their devices a priority in regards to information seeking. When asked about whether they were likely to call a friend or family member to ask for information (example: directions, facts etc.) all of the respondents said that this would most likely be a second choice, favoring instead to use GPS, or search engine functions on their devices. These notions of self-sufficiency through mobile devices correlate with Juliet Schor’s (1992) assertions that “once people become acclimated to the speed of the computer, normal human intercourse becomes laborious” (23). It is undeniable that technological convergence has affected markets and cultures alike,

but my primary concern is the interrelated social impacts. In line with the notion of individualism, the sophisticated level of convergence could be counterproductive to social interaction as users become increasingly dependent on their mobile devices.

my mobile is an extension of me

“...we orient ourselves to objects or experiences through our embodiment” (Dusek, 2003: 80).

In encountering the object world, we are extensively transformed by the structure of objects; internally altered by objects that leave their remnants and trace within us (Elliot & Urry, 2010: 25). The use of headphones or applications on a smartphone visibly demonstrates the concept of a technologically mediated experience. Mediation broadens the human body; “its ability to perceive, to express itself, to ‘reach out and touch’ others across space and time” (Van Loon, 2008: 15). American philosopher Albert Borgmann (1984) muses, “the essence of technology is to ramify and attenuate, and thereby eliminate our connection with the social and material world in which we live” (Arnold, 2003: 241). Under Borgmann’s device paradigm, the device performs more functions, and in contrast the user performs less and less. As mobile technology becomes an integral part of an individual’s day-to-day life, not only are boundaries of public and private traversed, but there is also an apparent blur between where the individual’s body ends, and the technology begins.

The second component of the *Circuit of Mobile Device Use Model* incorporates the perception that as mobile use increases, the device in turn becomes an extension of the user. Distinct from desktops, landline phones and other immovable technologies, mobile devices more closely bear a resemblance to tools or prosthetic devices as “extensions of the body” (Perterra, 2005: 25). As the first theme demonstrated, for each of the participants, having access to their mobile devices and its varying capabilities anywhere, at any time, is exceptionally important. Lara Srivastava (2006) compiles a series of insightful observations about the body-tool relationship of the individual and the mobile:

The sheer physical proximity of this technical device to the human body cannot go unnoticed. Most users are no more than a metre away from their mobiles, at any time of the day. Many sleep with it near their pillow, and use it as an alarm clock. This distance will only be shortened with developments in wearable wireless computing [...] The mo-

mobile phone has indeed become the most intimate aspect of a user's personal sphere of objects (e.g., keys, wallet, money etc.). It seems to give users the impression that they are constantly connected to the world outside, and therefore somewhat less alone. (9)

When probed about how they might feel if they were to lose their devices, or leave them at home for an entire day, each of the participants expressed a sense of anxiety, paranoia and disconnectedness. Similarly, the majority of participants expressed feelings of detachment and disengagement from their extended environments, communication and information wise. According to Adriana de Souza e Silva and Jordan Frith (2012) when we experience a place, “we do so through our body, which acts as a layer between a place and our perception of it” (26). Crucial to note in this instance is the affect mediation has on said experience – does the mobile significantly alter and filter the ways in which we experience place?

MCLUHAN'S 'EXTENSIONS OF WO/MAN' + MY STRONGER MOBILE MEMORY

Modern communication devices and interfaces alike append themselves to the human body and accordingly saturate bodily senses. In line with the notable McLuhan aphorism, “media are extensions of the senses,” the mobile phone can be perceived as a spare organ, incorporated with the body, often continually (McLuhan, 1967 as cited in Biocca, 1997: 8). Suitably, the mobile is used incessantly as a means of extending the potential reach of the voice and ears across infinite space (Arnold, 2003: 246).

In “The Cyborg Dilemma: Progressive Embodiment in Virtual Environments,” Frank Biocca (1997) notes that, “each progressive step in the development of sensor and display technology moves telecommunication technology towards a tighter coupling of the body to the interface” (Biocca, 1997: 2 as cited by Robinson, 2004: 39). Therefore, as the interface is adjusting and adapting to the body, the body is subsequently adapting to the interface (2). A primary example of this fine-tuning can be exemplified in the power of the mobile device to act as a supplement for human memory. Whereas individuals once remembered countless phone numbers and e-mail addresses alike, today the utilities of speed dial and electronic phonebooks embedded within mobile devices have functioned to abolish the perpetuation of such practices. As users

“I feel like totally connected to it. If I don't have it, I feel like something is missing”

—ALEXANDRA, 2012: 8.

depend on mobile devices to augment their memory, the dependency on the device increases, thus perpetuating a blur between the boundary of body and technology.

ASLEEP, BUT ALWAYS CONNECTED

The omnipresence of the smartphone makes its role in the shaping of the self more powerful when compared to other technologies. This can undeniably be noted in the attachment to the device (Lasen, 2011: 88). Directly applicable to ideas of mobile technology and the body, several users have reported sensing vibrations or hearing their phones, when in actuality, they have not. Sometimes referred to as the aforementioned “phantom vibration syndrome” or “ringxiety,” the psycho-acoustic phenomenon was reported in the *British Medical Journal (BMJ)* in December 2010. The study conducted by Michael B. Rothberg found that in a survey of personnel at one medical centre, 68 percent of respondents had reported feeling phantom vibrations, with 13 percent experiencing the sensations daily. Similarly, Ingrid Richardson (2007) asserts, “use of mobile and wearable media can be described in Drew Leder’s terms as an incorporation by which we reshape the ability structure of our bodies” (206). In such, Callon and Law (2004) muse that mobile phones can best be thought of not merely as extensions to the body, “instead they are organs, integrated into the body” (Callon & Law, 2004: 9 as cited in Lee, 2008: 44).

The proximity of the mobile to the body works to aggravate the aforementioned sense of anxiety, as all but one participant articulated encountering ‘phantom vibrations’. As users expressed their desire to continually have their devices close by, they are inevitable treading a state of being tethered or always on. Catherine Middleton (2007) notes “mobile device usage begets more mobile device usage [...] the more that individuals make themselves electronically open and available to others, the more this availability will be exploited” (173). Accordingly, the human body and machines coalesce within media space, thus the environment fashioned by the mobile device is an assemblage of technology, space and the body.

from off to always on

“As with the BlackBerry, whose users tend to be ‘always on,’ it’s sometimes not clear who is controlling whom with mobile phones” (Baron, 2008: 35).

Twenty years ago, every activity and relationship had its own place; financial transactions were done at the bank, flirting was done on a date, movies were enjoyed at the theatre, and shopping was done at the local mall. Today, with the growth of convergence in new information and communication technologies, each desire, task and relationship is becoming a continual presence (Agre, 2001: 10). Accordingly, Philip Agre (2001) asserts that because of mobile communication devices, there is

a “tremendous shift in human relationships: from episodic to always-on” (10). In perhaps the most articulate illustration of the concern over isolation and alienation, the *New York Times* facetiously asserted that “if *Waiting for Godot* were written today, Estragon and Vladimir ‘wouldn’t speak to each other; they’d both be on their cellular phones” (New York Times, 24 Sept. 1995 as cited in Arce-neaux, 2005: 25).

“It’s definitely stressful because, you’ve set out a reputation that you’re always reachable” —JESSICA, 2012: 12.

The midpoint of the *Circuit of Mobile Device Use Model* encounters the matter of being always on. As the boundaries between the body-tool relation become blurred and the device is perceived as an appendage, the user constantly has the device with them, resulting in a change to constant availability, anytime, anywhere. This notion of being ‘always on’ was rampant throughout each of the participant’s dialogues. What was particularly illuminating about this concept was its threefold significance. As exemplified in the interviews, the state of being always on can be linked to the notion of never powering off mobile devices, always having the device on you, and finally the constant availability and accessibility of the user.

LANDLINE VS. MOBILE DEVICE

Imar de Vries (2012) contests the validity of the always on world in asserting “if always being connected is what brings pure communication a step closer, it is also what foregrounds the communication paradox, and forces us to realize that pure communication is relentless in its intrusive nature” (141). In line with this notion of constant connection, University of Texas scholar, Jennifer Deering Davis (2010) uses the term “always on” in her dissertation to refer to “the state of being constantly connected, which has communicative, informational, and psychological implications” (6). By the same token, in *Alone Together: Why We Expect More from Technology and Less from Each Other*, Sherry Turkle (2010) asserts, “these days, being connected depends not on our distance from each other but from available communication technology. Most of the time, we carry that technology with us [and] being alone can start to seem like a precondition for being together” (155). While participants used their gadgets for varying purposes, they all elucidated that these uses were much more intricate than capabilities associated with stationary landline phones. Beyond having the same calling functions as a landline, many of the participants discussed the affordances of having the phone on them while they are on the move; thus allowing users to connect to remote others and content, anytime, anywhere.

All of the participants explained that they are more likely to give out their mobile numbers, as the device is always close by, thus making them more accessible. No

matter where the user is, the mobile device makes the individual personally addressable – you are not calling a place, but instead an individual directly. As Joshua Meyrowitz (1985) explains, “when we communicate through telephone, radio, television or computer, where we are physically no longer determines where and who we are socially” (115). Whereas an individual might leave his or her house twenty years ago, and miss a call, today the individual can be reached virtually anywhere through their ‘always-on’ devices.

MESSAGE READ: PRESSURES TO REPLY

In *Understanding Media* (1965), Marshall McLuhan observes that an incoming call begets and provokes an undeniable expectation, even perseverance, thus ultimately compelling users to answer it straightaway. This call of immediacy is upheld by the social norm of giving an alert-ridden phone high priority, “the norm is to answer an incoming [alert] (Hopper, 1992; Humphreys, 2003; Bergvik, 2004)” (Banjo, Hu & Sundar, 2008: 128). Messaging utilities like Apple’s iMessage and BlackBerry Messenger provide users with the beneficial prospect of knowing when their messages have been successfully delivered to other users, as well as informing them of when the messages have been read.

Messaging utilities incorporated in smartphones subsequently contribute to users being ‘always-on’ providing them with very minimal opportunities for disengaging. All of the participants commented on the status of being permanently available to remote others, and subsequently remarked about the pressures associated with this ongoing availability. Michael Arnold (2003) asserts that “even if the phone is never used, it can be carried at all times, and the very fact that it is possible to communicate, of itself carries a link that reinforces connectedness” (245).

As users ascribe to a sense of permanent availability, they express a desire to have others do the same. All of the participants, but one, voiced a sense of frustration with users who failed to respond to messages or calls in a timely manner. Many participants also discussed a sense of pressure to reply based on the sole fact that the individual messaging has the potential to recognize that the message has been read.

ALWAYS ON; NEVER OFF

As mobile devices perpetuate a sense of constant availability, users experience a sense of inevitable anxiety when said accessibility is hindered. Throughout the interviews, perhaps the component that I found most staggering was the one that contributed unanimously to the nature of being always on. Of my seven interviews, each participant candidly admitted to never actually powering off their mobile devices, thus giving a whole new dimension to ‘always on’. Most of the participants attributed the decision to never power off their devices to a sense of uneasiness about potential emergencies in which someone may need to reach them. Accordingly, in situations where the devices would best be suited off, participants admitted to simply changing the alert type to silent, so as to not disturb anybody, and still allow

for a flow of perpetual contact. In line with the anxiety of having to power off the device, participants also expressed concerns with missing messages, calls or other notifications on their mobiles, while they are engaged elsewhere. Many participants expressed concerns with constantly checking their mobiles while working, or while out in public.

In James Katz and Mark Aakhus's (2002) *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, the communications scholars coin the concept of perpetual contact, "an ideal, a form of 'pure communication' that does not yet exist due to social and technological limitations," that is quite identical to the idea of being always on (6). Larissa Hjorth (2007) muses that mobile media function to "push and pull" users, "setting [them] free to roam and yet attaching [them] to a perpetual leash" (Hjorth, 2007 as cited in Berry & Hamilton, 2010: 113). This 'perpetual leash' instigates conflict in modes of interaction in the public sphere; any interactions taking place on the mobile are often first priority, at times even over face-to-face conversations.

With mobile devices, individuals have the capability to be physically present, while emotionally and mentally away, based on the portability of these technologies. Kenneth Gergen (2002) deliberates the idea of absent presence, which he defines as the "growing domain of diverted or divided consciousness invited by communication technology, and most particularly the mobile telephone. One is physically present but is absorbed by a technologically mediated world of elsewhere" (227). Gergen's notion is a crucial element of being always on; individuals who are always on simultaneously control their absent presence. The occurrence is quite generic – when a mobile device is in the public sphere, and it rings, vibrates or commands the attention of the user, it encroaches into a person's physical environment (Davis, 2010: 7). As Sadie Plant (2001) notes, "a ringing phone will often take precedence over the social interactions it disrupts: the need or desire to answer a call often outweighs the importance of maintaining the flow of face-to-face interaction" (7). Similarly, Arnold (2003) posits that the absent invader is habitually "welcomed and given precedent over those who are physically present" (247).

Similarly, many of the participants disclosed that when they were occupied with a task that required their immediate attention, they would switch from more discrete alert types, like silent to vibrate or ring. Evidently, as mobile devices perpetuate a sense of constant availability, users experience a sense of inevitable anxiety when this accessibility is hindered. Users exert a sense of control over the device by refusing to power off, while reciprocally a sense of hegemony is inevitably employed by the device itself over the user. Thus, a curious case of uncertainty is presented over who the slave to the master is – the device to the user, or the user to the device.

'ALWAYS-ON' YOU

Turkle (2008) has noted the popularity and seductiveness of always-on/always-on-you communication devices that offer up the sense that one can accomplish more,

experience “place polygamy” and control more facets of life through their mobile phones (129). The bulk of the research that pertains to being “always on” highlights potential and analyzed consequences of this continuous availability – both negative and positive. Simply put, the benefits of being always on can include “elimination of time and space constraints, better coordination and planning, increased communication, enhanced productivity, even individual image management” (Davis, 2010: 21). They note that mobile phones “liberate individuals from the constraints of their settings,” (7) allowing them to remain accessible, despite place and space changes. Similarly, Katz and Aakhus assert the positive productivity outcomes of mobile devices such as BlackBerries, in noting that they can be useful “instruments for managing practical affairs” (Katz & Aakhus, 2002: 8, as cited in Davis, 2010: 21). Technologies such as the mobile phone and smartphone not only inspire individuals to complete tasks more quickly, but also facilitate polychronicity.

Despite some positive outcomes, being always on can lead to a variety of negative consequences. Baron (2008) theorizes that the costs of being always on can be measured in “personal terms, ethically and cognitively, and with respect to social interaction” (213). These theoretically detrimental effects include, “loss of privacy and control, information overload, interruptions, deterioration of work and personal life boundaries, [as well as boundaries of public and private] and addiction” (Davis, 2010: 22). Individuals become more interactive as a result of being always on, but far less intimate. John Locke (1998) muses that “intimate talking, the social call of humans, is on the endangered behaviours list” (19).

The problem concerning control and the mobile device in an always on world, queries where the control actually lies – in the hands of the user, or in the device that is in the user’s hands. Guest Columnist for *The New York Times*, Robert Wright (2008) has said “technological change makes society more efficient and less personal. We know more people more shallowly” (Wright, 2008 as cited in Baron, 2008: 224). Speaking to this idea of vague communities and weak ties, Michael Bugeja notes that “for many users of mobile technology, community metamorphoses into elevator music. We know it is out there but are not really paying attention” (Bugeja, 2008 as cited in Baron, 2008: 224).

In speaking to being always on, Baron posits a useful metaphor for assessing mobile device usage. She notes that although playing the piano is a remarkable skill, practicing incessantly can lead to suffering from carpal tunnel syndrome. Similarly, she asserts that modern technologies, like mobile phones, are invaluable utilities to human productivity, social connectedness, safety and relaxation; however, we certainly need to re-assess our conventions in order refrain from being so reliant on them (Baron, 2008: 231).

reshaping public space

“As private individuals carrying cellphones enter into public space they engage in new forms of behaviour, develop new codes of social interaction, and face new demands or etiquette” (Crow & Sawchuk, 2008: 144).

The current state of mobile phone subscriptions in Canada, and throughout the world, inevitably indicates a noteworthy change in person-to-person communications within the wider media environment (Brown, Green & Harper, 2002; Katz, 2006; Katz & Aakhus, 2002; Ling, 2004; Sawchuk & Crow, 2008). Accordingly, the omnipresent and pervasive nature of mobile devices is subsequently altering notions of private individuals and communications within public space (Sawchuk & Crow, 2008: 143). Revisiting technological convergence, mobile devices today feature calling, texting, photo, gaming and browsing capabilities. Technological convergence facilitates the blurring of the dichotomy between production and consumption, between making and using media, and between active and passive spectatorship of mediated culture (Papacharissi, 2010: 65).

Whereas the themes in the *Circuit of Mobile Device Use Model* discussed thus far affect the user primarily, the remaining two themes explore the impact on the general public. The fourth theme explores the ways in which mobile devices alter the dynamic between private and public space. Michael Bugeja (2005) muses that modern media and technology are transportable, and have subsequently followed us outdoors into the public domain. He asserts, “[mobile devices] are ubiquitous reminders that humans in the twenty-first century dwell in more than one place at any time, splitting consciousness to multitask in parks, cars, schools, restaurants and malls” (40). Similarly, Mizuko Ito and Daisuke Okabe (2005) regard mobile devices as a form of technology that challenges and subsequently changes the way people comprehend public spaces and engage with one another (Ito & Okabe, 2005 as cited in Berry & Hamilton, 2010: 112). All of the participants discussed mobile usage in filling dead time, when waiting for public transportation or while anticipating someone’s arrival, thus stripping public space of a sense of “interaction, transaction and communication” (Drucker & Gumpert, 1993: 297).

DEFINING PUBLIC SPACE

Todd Gitlin (1998) idealizes the public sphere in commenting on its “roundness, fullness, [and] ripeness: the image of the public sphere conveys the sense of a planet, a fruit, something complete” (168). Today, users tend to disavow public space through their prioritization of their own “technologically mediated private realm” (Bull, 2001: 192). When asked to define public space, most of the participants expressed overlapping measures and notions. Many of the participants correlated public space with ideas of community. Similarly, most used the simple dichotomy that public space was anything that wasn’t considered private space. Accordingly, all of my participants coincided with de Souza e Silva and Frith’s (2012) notion that public spaces are in fact shared spaces (52).

In line with this idea of public space, many participants ascribed notions of freedom and sovereignty. As a result of the independence and autonomy afforded by public space, individuals have the opportunity to interact, or isolate themselves. With the rise of mobile devices, it is evident that interactions take place in public spaces, but not necessarily with those in close proximity. Instead, users connect with remote others. As a result of these distant interactions via communications technologies, users inevitably engage less with their immediate physical environments, thus reshaping conventional ideas of public space.

NOTIONS OF COMMUNITY DECLINE: PRIVATE CALLS IN PUBLIC PLACES

In what might be a romanticized perception of unity and kinship, Zygmunt Bauman (2001a) asserts that, “words have meanings: some words, however, also have a ‘feel’. The word ‘community’ is one of them. It feels good: whatever the word ‘community’ may mean, it is good ‘to have a community,’ ‘to be in a community’” (1). Similarly, Sherry Turkle muses, “communities are constituted by physical proximity, shared concerns, real consequences and common responsibilities. Its members help each other in the most practical ways” (Turkle, 2010: 239). Similarly, Michael Bugeja (2005) muses that notions of community play a vital role in human moral development. He asserts, “simply put, community is a place for ‘communion’ – the true habitat of humanity – where people share lives, rear children and partake in the essentials of healthy and productive living. [...] The conditions of community necessitate face-to-face interaction in physical places” (45).

Today, a walk in the city, through a train station or into a café reveal a puzzling enigma; a series of individuals talking to themselves, with little concern for what is going on around them, content and undaunted by intimate conversations in public

spaces. Addressing the rise of mobile devices, the ubiquity of the current state of social capital, and the lack of demarcation between private and public spaces, Turkle (2008) notes:

“Public space is a lot like the Internet in a sense, where you sort of have the freedom to go where you want”

—ANGELO, 2012: 14.

A train station is no longer a communal space, but a place of social collection: tethered selves come together, but do not speak to each other. Each person at the station is more likely to be having an encounter with someone miles away than with the person in the next chair. Each inhabits a private media bubble. Indeed, the presence of our tethering media signals that we do not want to be dis-

turbed by conventional sociality with physically proximate individuals. (122)

What is crucial to note in Turkle's argument, is not solely the blurring of the private-public dichotomy, caused by users integrating their devices into the public sphere, but rather the fact that the mobile itself has the ability to signify a virtual "do not disturb" sign. Instead, people come together in communal spaces, to communicate – yet not with one another, but rather with, and through their mobile devices, which allow them to be always on. In a sense then, "walled communities" are being fashioned because of the mobile phone (Ling, 2004: 192).

As mobile device users engage in private conversations in focused settings, they are removed from their immediate environments, and stripped of both communal involvement and interactions with co-present others. Although all of the participants admitted at one point or another to using their devices in public, only one admitted to placing calls regularly. Almost all of the participants expressed a sense of dissatisfaction and frustration with others use of mobile devices in public places. Psychologist Kathleen Cumiskey (2005) refers to this strained intermingling of public and private as the paradox of techno-intimacy, "to ourselves, our mobile telephone is a highly convenient personal item and our own mobile communication behaviour is perfectly acceptable, but we tend not to appreciate the same behaviour and attitude towards the valuation of mobile communication in others" (de Vries, 2012: 147). It appears as though the participants who expressed a sense of annoyance and frustration merited these feelings on the basis that voice conversations essentially deprived them of a sense of public. Instead, these types of interactions conferred them with an unwanted private experience of a co-present individual. Where voice conversations were seen as a nuisance, none of the participants cited a problem with individual's texting in public, as this medium is far more quiet and unobtrusive.

Ursula Franklin (1994) notes "silence has been influenced by all the other things that have changed as our world has become what Jacques Ellul calls a technological milieu, a world that is increasingly mediated in all its facets by technology" (1). Returning temporarily to Goffman's "conversational preserve" the prominence of "silence" in the public sphere emerges once more. Where the sociologist used the phrase to delineate the ability of an individual to wield some hegemony over who converses in public and when, Richard Sennett (1994) similarly describes a lifeless urban space in which the mobile device user falls silent, thus deteriorating the public sphere:

Individual bodies moving through urban space gradually became detached from the space in which they moved, and from the people the space contained. As space became devalued through motion, individuals gradually lost a sense of sharing a fate with others...individuals create something

like ghettos in their own bodily experience (366).

It is evident here that mobile devices offer up a method of objecting to interactional possibilities, thus promoting a decline in face-to-face interactions. Through this act of “social malnutrition,” and the ability to isolate themselves from society, mobile device users are in turn dismantling structures of community, and the public sphere (Eitzen, 2003). Users are content with going about their own business and not having other members of society interact with them; accordingly the familiarity and confidence individuals may once have shared with one another is deteriorating. As previously stated, mobile device users set boundaries through their devices in order to uphold control of their environment; however, these confines are in turn causing psychological separation from individuals and society (Crane, 2005: 5). Eric Gordon and Adriana de Souza e Silva (2012) acknowledge the notion that the public sphere is a collection of minor social contracts; as patrons of these shared spaces we expect people to hold up their part of the contracts, and we will hold up ours (90).

PRIVATE, PUBLIC SPACES REDEFINED

Over the course of the last ten years, the dynamic of public space has changed immensely. Sherry Turkle (2008) notes that today, “a neighbourhood walk reveals a world of madmen and women, talking to themselves, [...] little concerned with what is around them, happy to have intimate conversations in public spaces” (122). As a result of the abundance of private conversations in public, “neighbourhood spaces themselves become liminal, not entirely public, not entirely private” (122). Accordingly, each of the participants mused about the change in the dynamic of public space over the course of the last decade. They discussed an interesting shift from public to private space in which their mobile devices facilitated a perpetual connection to remote others.

Jane Jacobs (1961) asserts “the thing that makes the public sphere vibrant is the continual contact with unexpected forms of interaction” (Jacobs, 1961 as cited in Ling, 2004: 193). As participants exemplify a personalized and mediated world in the public sphere, these unexpected interactions are fleeting. As such, participants described an analogous loss of geographical space illustrating the occurrence of being in a bubble while in public space with the help of their mobiles.

Joshua Meyrowitz (1985) in his most notable work, suggests that people lose their sense of place when engaging with electronic media, such as cell phones and personal stereos. He muses, “when we communicate through telephone, radio, television or computer, where we are physically no longer determines where and who we are socially” (115). It is crucial to note that when immersed with a mediated and mobile interaction in the public realm, the user is not walking on Yonge Street if they are holding a tiny object that is pushing and pulling them toward a person in New York. In line with Meyrowitz, Jukka-Pekka Puro (2002) argues when a user is immersed in an activity facilitated by a mobile device, be it talking, texting or brows-

ing, they are “in his or her own private space in the psychological sense, [and] as a result, [the user] is less open to certain social contacts and interactions” (Puro, 2002 as cited in Humphreys, 2005: 371). Accordingly, Puro believes that discussing topics of private and personal concern in public spaces fill the air with private affairs. It is widely apparent that we have seen too, that a new place – a territory that includes absent others – is now colonizing the social world (Harper, 2010: 125).

the decline of face-to-face interactions

“[Mobile devices] can even more effectively be used to shield oneself from wider surroundings by escaping into the narrower realm of highly familiar, predictable and self-controlled social relationships” (Geser, 2006: 10)

In *Interpersonal Divide*, Michael Bugeja (2005) discusses the current state of communication in society, noting a rise in interaction, coupled with a steady decline in intimacy. Bugeja explores the state of displacement from public to private in observing that individuals are spending far too much time in virtual rather than real environments. He remarks, “such isolation complicates life, not because life has become complex in reality, but because we have forgotten how to cope with the rigors of the human condition” (6). Relevant to this human condition, he discusses the individual’s lifelong quest for acceptance – one that used to be conducted in community. Today, this pursuit of approval is directed as much to virtual as physical place; “[which] widens the interpersonal divide and, in part, addresses why the venerable task of deepening conscience and expanding consciousness has become so difficult in our time” (23).

The overarching theme encountered throughout my interviews comprises the final step of mobile device ubiquity; the transformation of face-to-face interactions as a result of the reliance on mobile devices. Accordingly, the final facet of the *Circuit of Mobile Device Use Model* deals with the aftermath of the first three phases. As mobile users take to the public sphere, engaging with their mobiles, and with absent others, there is a conversion of face-to-face interactions. Each of the participants stressed the importance of face-to-face interactions in maintaining healthy social skills, and enforcing notions of confidence and trust in other human beings. With the convergence of mobile media, alongside the abundance of applications accessible through mobile Internet, face-to-face interactions can become a rare, jeopardized facet of communication.

Similarly, as users engage with co-present others, the mobile device still has the potential to disrupt face-to-face interactions, and often takes precedence in these scenarios. With the rise in omnipresence of mobile devices, Michael Bugeja (2005)

notes “slowly, almost imperceptibly, some of us are losing the ability to interact meaningfully with others, face-to-face, because we opt for on-demand rather than physical contact, relying on technology to mediate our thoughts, words and deeds” (41). Accordingly, Bugeja emphasizes the importance of physical engagements, as “human beings are meant to interact with each other face-to-face in physical habitat, developing language and social skills” (41).

“To be able to see the person you are talking to is a lot more comforting and a lot more trustworthy than a voice without a face or words on a screen”

—MATTHEW, 2012: 5.

In striving to build community and trust, individuals must acknowledge the importance of interaction and intimacy. Kazys Varnelis and Anne Friedberg (2008) note “we gather at the communal watering hole as we always did; only now we don’t reach out to those around us. Instead, we communicate with far-

flung souls using means that would be indistinguishable from magic for all but our most recent ancestors” (16). Although mobile devices may encourage independence from society and socialization, it is evident that technology cannot provide the same sense of community that face-to-face interaction does. As described by Bugeja, “media and technology may inspire many things but not trust” (Bugeja, 2005: 63).

Several participants commented on the double-edge sword of having several services such as shopping, banking and appointment bookings available over their devices. Although a luxury, these services eliminate a plethora of vital daily face-to-face interactions – exchanges which were formerly used to inspire trust.

THE IMPORTANCE OF FACE-TO-FACE COMMUNICATION

Modes of face-to-face interactions are incessantly in opposition with mediated forms of experience, “with users often finding the simulated more attractive than face-to-face” (Bull, 2001: 192). Although participants discussed the convenience and ease afforded by mobile technology in facilitating communication, all of the participants concurred that there is no better form of interaction than face-to-face.

In line with the importance of face-to-face communication as a means of inspiring trust and confidence, is the inopportune miscommunication afforded by communication technology. Similarly, participants explored not only the socially awkward nature of individuals who depend heavily on communication technology as a primary source of interaction, but also the rise in miscommunication facilitated by the devices.

Akin to the belief that face-to-face interactions are most ideal, participants detailed the relevance of strong communication skills that can only be driven by strong physical engagements. Similarly, they explained the importance of face-to-face in-

teractions, in noting that human beings are not entirely self-sufficient. Several participants mentioned notions akin to the John Donne 's (1624) notion that "no man is an island"; human beings need healthy physical interactions in order to establish bonds of trust, and to inspire confidence. These two appliances are crucial to the richness and vitality of the public sphere. Similarly, Michael Bugeja (2005) notes that in order to experience a growth in the vitality of the public sphere, "we must use media and technology to expand community rather than be used to replace community" (112). If used appropriately and responsibly, media and technology can endorse our morals and values, enhance and expand knowledge and ultimately improve the quality of life (112).

THE DECLINE OF INTIMACY

Similar to the paradox facilitated by the Internet, mobile devices "increase opportunities to create and maintain social ties but tends to reduce in-person social contact" (Matsuda, 2005: 128). Many participants discussed the decline of intimacy facilitated by the ongoing use of communication technology and mobile devices. Although participants admitted the ease and efficiency of maintaining a relationship with individuals was far greater now, based on the ubiquity of mobile technology, the connection isn't at all stronger or better.

Evidently, there is a paradox generated by communication technologies; interaction has increased, and yet intimacy has declined rapidly. New York Times columnist Robert Wright notes "technological change makes society more efficient and less personal. We know more people more shallowly" (Wright as cited in Baron, 2008: 223). Keeping with superficial and trivial modes of communication facilitated by mobile devices, participants discussed the decline of face-to-face interactions as they are replaced with mobile engagements.

Curt Supplee, formerly of the *Washington Post*, addresses the paradox that the current advent of communications technologies increases interaction while reducing intimacy. The science and technology writer affirms "we have seen tenfold increases in 'communication' by electronic means and tenfold reductions in person-to-person contact" (Eitzen, 2004: 643). John L. Locke (1998) makes a persuasive contention in his book *The De-Voicing of Society*, musing that e-mail, voice mail, mobile devices and Internet chat rooms are depriving individuals of ordinary social talk. Accordingly, the result as explained by Locke is that "we are becoming an autistic society, communicating messages electronically but without really connecting" (Eitzen, 2004: 643). It is now quite common that individuals encounter a paradox of pure communication as technological devices offer up ease and convenient modes of interaction. What is crucial to query however, are the socially isolating properties of these types of communication.

MOBILE DEVICES PROMOTE ISOLATION

In discussing the multifaceted capabilities of the modern mobile device, it is clear

that the range in services, applications and varying modes of communication can promote a sense of self-sufficiency. As the mobile promotes a channel for isolation from the immediate environment, it psychologically shields its users from interaction and involvements with co-present others (Humphreys, 2005: 374). As a result of such, many users enable a sense of isolation through their devices. In discussing the decline of intimacy, coupled with the rise of individuation promoted by mobile devices, many participants spoke of their mobiles as a means of impeding on and limiting face-to-face interactions.

Accordingly, participants discussed essence of their smartphones, and corresponding plethora of services and applications available to them, which in turn promote a sense of isolation and autonomy. Commenting on Apple's notable slogan "There's an app for that," several participants asserted that through these albeit time-saving and efficient entities, human engagements are being compromised. This is perhaps the most illustrative point of the detriments of mobile media.

Although it becomes apparent that individuals are promoting a sense of remoteness and seclusion through their mobile devices, many participants explained that they may in fact just be engaging in what Sherry Turkle (2010) acknowledges as being "alone together". The growth of individuality has altered urban spaces by deemphasizing communication among strangers and coercing individuals to establish coping mechanisms to manage the uncomfortable state of being among strangers. For smartphone users, these mechanisms are expansively, ranging from game playing, news reading, social media engagements and both voice and text conversations alike.

Although it may appear that users are in their own bubble, alone with their mobiles, they can in fact be e-mailing, messaging, navigating social media such as Facebook and Twitter, with a series of individuals. Accordingly, it is crucial to note that many of these isolating properties are in fact debatable and vary according to the user. Prominent in discussions however, was the recurrence of the notion of the "mobile bubble," which for some participants "provides the individual with a space of comfort, familiarity, and security within what is primarily a realm of strangers" (Hampton, Livio & Sessions, 2009: 7). Accordingly, mobile devices have the potential to be used habitually as a means on shielding the individual from social diversity and urban public space.

'DO NOT DISTURB,' I'M USING MY MOBILE

It is undeniable that mobile devices have hundreds of intended uses, making phone calls, sending texts, taking photographs, listening to music and browsing to name a few. What is interesting about these devices, however, is the potential for inadvertent utilities; this includes the ability to ignore proximate others, while being immersed or imitating being immersed by the features or content of the device. Participants were asked to consider such unintentional functions. Interestingly, all but one discussed ways in which they had used their devices as a means of ap-

peering occupied, thus ultimately avoiding face-to-face interactions with co-present others in public spaces. Preventing external stimulation does not translate into users not experiencing places, but instead means that we experience places differently (de Souza e Silva & Frith, 2012: 42).

Many participants went on to make the illustrative and rather relevant point that because of the expansive features of a contemporary smartphone, proximate others are unaware of what the user is doing with their device, unless they scan the screen for themselves. As such, individuals may be less likely to disturb you, if they see that you are engaged with your mobile because they really have no idea whether you are immersed in something important like an e-mail or work, or trivial like game-playing or social media engaging. In this way, Leopoldina Fortunati (2000) asserts that mobile devices can be used as a means to shield individuals from wider surroundings, allowing them to “[escape] into the narrower realm of highly familiar, predictable and self-controlled social relationships” (Fortunati, 2000 as cited in Geser, 2004: 10).

In line with using the mobile as a prop for deterring proximate others from engaging with the user, participants were also asked what seeing someone using a mobile device like a smartphone in public, symbolized for them. Having just been asked about their own practices and unintentional functions of using the devices as a means of avoiding interaction, most participants were transparent in their reflections. For most, seeing someone using a mobile device often symbolized a virtual “do not disturb” sign. Although all of the participants expressed the capacity to use their mobile devices as a means of avoiding interactions, several participants expressed their dissatisfaction and frustrations with not being able to find someone who appears unoccupied when they might need help in a public place.

Mobile technologies reflect and affect both the cultural and social world in which they are situated. Accordingly, the position of technologies within public spaces can enlighten as to social practices operating within society, as well as the significance of the technologically mediated experience. As portable media devices become increasingly ubiquitous and tailored, they continue to probe and alter everyday cultural practices and spaces, and are thus upsetting divisions and dichotomies of public and private space. Based on the diverse literature explored in this paper, it is clear that the effects of mobile devices on the public sphere are multifaceted. Accordingly, these varying components inform my research in facilitating my exploration of the motivations for mobile device use, the interactions hindered or augmented by mobile devices and smartphones, and finally the relationship between mobile devices and the ensuing renegotiation of the public sphere.

conclusion

“Communication technology is too good to be true, and nothing – even holography technology that simulates depth and dimension – can substitute for the real thing” (Bugeja, 2005: 32).

The very nature of the term “circuit” implies several things; it is a system of diverse yet connected parts or devices, and implies a complete path with a specific current and flow. That being said, it is undeniable that circuits can be broken, detached and ultimately disconnected. In order to break the *Circuit of Mobile Device Use Model*, it is crucial to examine both media consumption and technology use in conjunction with one another. Scrutinizing their influence on users outlooks, values and beliefs are also of significant importance.

When asked about whether they would be annoyed, distressed or feel as though their privacy was invaded if a proximate other were to peer at the newspaper they were reading over their shoulders, all of the participants expressed impartial feelings. Most explained that it would make no difference to them, as the newspaper is a mass-produced commodity, readily available to the public. In contrast, when asked if their feelings would change if the medium in question were a mobile device, all of the participants conveyed a sense of privacy infiltration. Despite the fact that news applications on mobile devices transmit the same information that print articles do, users do not warrant the same sense of attachment to these disposable items.

The small sample of significant mobile users, currently using a third or fourth generation device, that are far more sophisticated and intricate than their initial two-dimensional devices, divulged substantial accounts of their mobile usage that have been both overlooked and negated in previous research; the *Circuit of Mobile Device Use Model* satisfies these voids. Where Sherry Turkle’s (2008) “alone

together,” and Kenneth Gergen’s “absent presence” comment on perpetual states of communication decline and attention deficits, they fail to assess the impact of mobile devices from start to finish. Rather than querying why mobile entities have such impacting potentials, previous research merely comments on how the user and proximate others are affected. Where previous models, theories and posit exceptional conclusions, they fail to make crucial relational ties.

The *Circuit of Mobile Device Use Model* reflects those highly engaged with technology. Where this study would benefit from a much larger sample size to account for disparities, and to incorporate users who do not heavily identify with their devices, it is undeniable that even with such a condensed size there is an emerging pattern. What is crucial to note, however, is that based on the body of literature that addresses mobile devices in the public sphere, previous research has failed to acknowledge questions that ask why, in favour of asking those that answer how.

Young adults have made for an exceptional group of study, primarily based on their widespread adoption of mobile devices. Accordingly this research proves that these individuals, despite being completely enamored by their technological devices, still facilitate the basic human desire to want to communicate. They still possess the need to be part of a circle of individuals, and have the desire to stay up-to-date on the latest news, gossip and mobile applications. This is the simplest form of evidence in acknowledging that communication has changed – it is not necessarily devalued, but the ways in which youth of today are tailoring their communication patterns cannot be overlooked. The research participants were specifically tailored so as to address explicit questions pertaining to the dominant literature within mobile research. Accordingly, the primary feature of the model itself highlights the relational elements encompassed within it – it does not stand as five separate entities, but rather is upheld by the impact one step has on the next. Our ordinary selves have been cultivated with the vision that communication is sometimes about togetherness; it is about being together and sharing a place and time, but it is also simultaneously a virtuosity, and when done with diplomacy it facilitates a sense of connectivity that extends beyond time and space (Harper, 2010: 76).

Of particular relevance to the final step of the *Circuit of Mobile Device Use Model* is the decline of spontaneous and arbitrary social interactions. Whereas two decades ago one encountered a series of unprompted and random interactions on a daily basis, with a comprehensive continuum of individuals, there were indications that have now been confirmed by both this research and model that this seems to be changing. Accordingly, “we seem to be mobbing into a society where the social net is cast further afield but to a more similar set of individuals” (Ling, 2000 as cited in Geser, 2004: 10).

Hans Geser (2004) asserts that when technologies, like mobile devices, become ubiquitous, no definite inferences in changes in human interaction patterns can be portrayed. Instead, “much extensive and sophisticated research is necessary in order to assess how they are actually used, how they affect various kinds of social

relationships, and how they become embedded in the evermore complex sphere of all other communication media” (42). The frequency of contemporary technology is very high; a decade ago, mobile phones acted as a landline on the go, today a ‘smartphone’ performs like a high-quality computer. Accompanying technological change is inevitably social change. The greater significance we give to these devices, the more engrained they become in our lives; the more engrained they are, the greater the impact potential. This paper is an effort to comprehend some of the ways in which users communicate, or refrain from communicating with mobile devices, and how accordingly interactions are structured with them.

SUGGESTIONS FOR FURTHER RESEARCH

Communication technologies and mobile devices alike, have and will continue to be a suitable area for scholarly research. As these technologies become more engrained in daily life, they assert their place in our world, and subsequently warrant more attention in our field. The ubiquity of mobile device usage as a means of connecting and entertaining creates a significant impact on users abilities to engage in their immediate public environments. As a result, users often attend to mediated engagements, as they appear more enticing than forms of public, face-to-face interactions. The data in this study bears these notions out to some degree. Further research might help to facilitate and illuminate stronger correlations between users and their devices, thus it is recommended that a larger, more diverse sample be collected in future studies. In addition, duplicating the research through varying age groups might serve as illuminating in identifying where usage trends are similar, and where they differ across age categories.

There is a vital demand to continue studying issues related to mobile device usage and the reorganization of the public sphere. This study, alongside the other research encompassed in this thesis paper, evoke an increasingly intersected dynamic between public and private. Accordingly, more attention and research is needed to fully understand the aforementioned, and other possible implications of these blurred boundaries. As research in this field becomes stronger and more potent, perhaps scholars and users alike will be able to develop practical mechanisms and recommendations for coping with mobile usage in the public domain.

Mobile technologies reflect and affect both the cultural and social world in which they are situated. Accordingly, positions of technologies within public spaces can enlighten as to social practices operating within society, as well as the significance of the technologically mediated experience. As portable media devices become increasingly ubiquitous and tailored, they continue to probe and alter everyday cultural practices and spaces, and are thus upsetting divisions and dichotomies of public and private space. It is undeniable that technological innovations encompass to some degree both costs and benefits, to users and society alike; what is most crucial to bear in mind, however, is the magnitude of those costs – the decline of vital physical interactions – and whether or not they are worth paying the ultimate price.

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