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**Cellulore Phenomenon:
Promoting and Policing Cellular Phones in Canada**

Judith Nicholson

A Thesis in
The Department of
Communication Studies

Presented in Partial Fulfillment of the Requirements
For the Degree of Master of Arts at
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ABSTRACT

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Judith Nicholson

Using a discursive analysis and cultural studies model, this thesis explores how we are understanding, rationalizing, resisting and embracing the cellphone by telling stories about how people use it. "Cellulore" is an original descriptive phrase used in this thesis to describe the stories people share and the popular media publish and broadcast about strange, odd, boorish and even dangerous or potentially deadly activities related to cellphone use. In the "utopic" and "dystopic" stories of cellulore, there are cautious, dismissive, and indecisive opinions about the meaning and value of the cellphone in our everyday lives. The aim of this thesis is to reveal how five taken-for-granted processes have promulgated the cellphone, supported unequal access to it, and helped to make the object meaningful in different ways to different social groups. Production, consumption, representation, identification, and regulation are the five processes. I propose that cellulore is the moment of articulation which binds these processes in relation to the cellphone. Together they have resulted in the cellphone acquiring a new register of meaning and value not associated with related communication technology like the landline telephone or with other portable technologies like the beeper or Walkman®. Cellphone use is provoking a redefinition of "mobile privatisation" as users speak private conversations aloud in public spaces instead of private spaces. Cellulore serves the function of helping us to understand, negotiate, and contribute to the changes affecting distances and distinctions between public and private spaces, between social groups, and between individuals.

Dedication

For my beloved grandmother Beryl Nicholson (1915-1995), who encouraged her children and grandchildren to seek education and to have faith, and for Esmie Clarke (1931-1997), my dear Aunty Cappy, who loved to tell fabulous, fantastic, frightening fables to my cousins and me.

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Introduction: Cellulore From Far and Near

These days, it seems like just about everyone has a story about an experience with a cellular telephone. Increasing examples of “cellulore” – stories about odd, boorish, amusing, anti-social, dangerous or even deadly cellphone use – have become a part of our regular gossip and news. Cellulore from down the street and around the globe is evidence of a cellular phone phenomenon that is disrupting our sense of social order, social practices and social relations. It is a cellular phenomenon that may be changing culture as we know and understand it. Evident in cellulore is the discursive tension created by our differing representation and use of the cellphone. At the heart of this increasing discursive tension is a battle over the meaning of the cellphone, specifically its use and regulation in public places.

It seems like people are using cellphones everywhere. Few people are surprised anymore to hear a cellphone ringing at the cinema, in a restaurant, at the gym, in a hair salon, even at church. Fewer still are surprised anymore that cellphone owners answer it. But have you heard the story out of Vancouver about a Federation Cup tennis match that was stopped after a spectator’s cellphone rang just as a player was reaching up to serve?¹ What about the story regarding the confusion among technicians during the first nights of hockey at the new Molson Centre in Montreal? They couldn’t figure out why the expensive commercials paid for by big advertisers weren’t being transmitted properly to the scoreboard during intermissions. Apparently, signals from dozens of cellphones being used by spectators were jamming internal transmissions.²

There's also the strange story of a Toronto businessman who recounts his frustration at a colleague who had forgotten she put his phone number into her cellphone's auto re-dial. "Now her purse calls me at all hours of the night and day," he explains.³

Who can forget the embarrassing conversation between Prince Charles and Camilla Parker-Bowles, his lover, in which Charles professed a desire to be a tampon so that he could always be close to Camilla? Charles made the mistake of sharing his desire using a cellphone. Someone was eavesdropping using a radio scanner, and his conversation was taped and released to journalists. In Finland, there's the story of the bishop who has ordered ministers and church workers to refrain from using their cellphones, following complaints from parishioners about "clerics taking calls during services – on one occasion in the middle of a funeral."⁴ In Israel, when 17-year-old Guy Arkrish was killed in a car accident, his family erected a tombstone in the shape of a cellphone at his grave because while he was alive, the teenager was constantly on his cellphone (see Figure 1).⁵ In another news item, a British man recently became the first person to be criminally prosecuted for refusing to turn off his cellphone aboard an aircraft. He was sentenced to 12 months in jail.⁶ Some airlines have banned cellphone use aboard aircraft while in the air, under the belief that signals from the phones may interfere with the plane's navigation or communication instruments, though this is still unproven.

The cellphone phenomenon is touching many common areas of our lives, including in some innocuous ways. Fisher-Price Inc. makes a toy cellphone for toddlers.⁷ Among the accessories that little girls can now choose for their Barbie® doll is a cellphone.⁸ Cellphone use is lampooned in cartoons: "A recent

cartoon in the *New Yorker* magazine portrayed a couple waiting to be seated at a restaurant. The maître'd asks: 'Will that be phoning or non-phoning?'"⁹

Another in *The Globe and Mail* shows smokers and cellphone users standing together outside a building. The caption reads: "Hopes & dreams for the next millennium. Like smoking, cellphones will be banned in public buildings."¹⁰

The cellphone is now squarely in the realm of popular culture. It has been worked into our cultural universe. Even people who don't own a cellphone or who have never used one are aware of its function, popularization and the discursive tension surrounding its. The cellphone has become "inscribed in our informal social knowledge—the 'what-everybody-knows' about the world—without consciously knowing where or when they first learned it. This kind of shared, taken-for-granted knowledge is an essential element in what we call 'culture'."¹¹ The cellphone has become a popular culture artefact in Canada, but not without some resistance or difference of opinion about its use and value. Some discursive tension surrounding use and value are evident in unflattering commentary reported in cellulore. Names have been coined for cellphone users who behave rudely while using their phones: "cell-socialites"¹² and "phonoholics."¹³ As in the cartoon mentioned above, using a cellphone is also often compared to smoking, with all its associated connotations of distaste, danger to health and addiction. As one commentator states, it can be said these days that people generally agree the "ring of a cellular telephone in a restaurant, on a golf course or tennis court, once considered chic, is now seen as an irritant."¹⁴

Whether it is about using a cellphone or dealing with someone else using one, the cellular phenomenon has inspired a lot of cellulore, which has also

served as free promotion and publicity (in the guise of journalism) for the cellphone. A simple database search of print media for the current year yields several hundred references to cellphones in a wide range of popular publications. A similar search conducted over a period of three or four years earlier results in substantially fewer references, many of them limited to telecommunications-industry publications and specific to cellphone use. Now many references are just glancing mentions in descriptive blurbs about someone's trendy attire or activities during a regular workday.

Growing amounts of cellulore have appeared frequently in Canadian news and commentary since about 1996. That year, Industry Canada issued four national licences for wireless PCS (personal communications services). Although wireless phone service, also commonly called PCS, mobile or cellular service (though there are slight differences between these) has been available in Canada since 1985, only in recent years has wireless phone use begun to seem ubiquitous and occasionally problematic. Now some people are calling for the implementation of informal rules or formal legislation to regulate cellphone use in public places. Other people are not waiting for regulation and are taking matters into their own hands by railing against public cellphone use in commentaries, aggressively confronting cellphone users, and in some other countries, people are using illegal jamming devices so that calls cannot be received or sent from cellphones within a particular radius.

In 1997, when 29 per cent of people in Canada had access to a wireless phone, one commentator had already declared that "cellphones are a fact of life. We're not suggesting banning them, just a little consideration when using them."¹⁵ In the same year, another commentator wrote, "If you sneer at a

yuppie yakking on a car phone or bristle when a cell phone rings out in a theatre, you need to be warned. The revolution will be wireless.”¹⁶ Two years later, in a May 1999 survey entitled “Usage and Attitudes Toward Wireless Communications in Canada,” Decima Research Inc. predicted that by the year 2000, between 47 and 50 per cent of people in Canada will have access to a wireless phone.¹⁷ If social practices are meaningful practices that are also fundamentally cultural, and if our growing use of the cellphone is changing social practices now, these changes may effect some shifts in our culture and everyday lives.

Even as cellphone use is increasing and there are clues it is being accommodated in our everyday lives, it is still being labeled as an activity that is rude, unnecessary, and out of place. When something “achieves the status of being ‘matter out of place,’ when people represent it as a threat to order and to established patterns of conduct, the common reaction is an attempt to exclude it, to reject it.”¹⁸ As more people are using a cellphone, there is a matching surge to classify and regulate its use in public places. Cellphone use is already banned by some airlines and hospitals, presumably to avoid electromagnetic interference around sensitive equipment. Using a cellphone is also forbidden in some libraries, theatres, cinemas and restaurants because it has been deemed a nuisance by patrons and owners. Recently, Ottawa City Council voted to ban cab drivers from using a cellphone while a customer is in the cab because it is rude and could result in unsafe driving.¹⁹ In New York state, it is now an offence to use a hand-held cellphone while driving.²⁰ It is still legal to use voice-activated phones in the car. In some Canadian elementary and high schools, students are

being asked to leave their cellphones in their lockers or turn them off when they enter classrooms.

Many of these rules are relatively new responses to burgeoning cellphone use. But are these new rules evidence that our sense of social order and established patterns of conduct are being disrupted, especially in the city? Are we really changing our social practices and our social relations, to accommodate, privilege or restrict cellphone use in public? If cellphone users and people who don't use the phones have different opinions about the meaning and value of the phone, is this difference fuelling increasing discursive tension as cellphone use increases? Are cellphone users resisting strategies to regulate use in public places? Are people who don't use cellphones employing subversive tactics to quell cellphone use in public places? My answer to these questions is yes, albeit based only on my reading of approximately 200 published articles and commentaries as well as my own everyday observations. Some articles include anecdotal evidence to suggest there is a powerful tug happening over the meaning, value and regulation cellphone use in other cities around the world as well.

As of April 1998, 40 per cent of people in Finland and 70 per cent of Israelis had a wireless phone.²¹ The May 1999 survey by Decima Research Inc. for the Canadian Wireless Telecommunications Association (CWTA) showed that people in Canada had almost caught up to these two forerunners: 41 per cent of Canadian households said they own or have access to a wireless phone, compared to 37 per cent in 1998.²² Even while people in Canada are becoming "unwired" from the landline phone or POT (plain old telephone) at an unprecedented rate, service providers and equipment makers are deliberately

prolonging the novelty of the cellphone. Consumers are willing participants in the seduction, appropriating the cellphone as a fashionable accessory and necessary communication tool. The enticing dance between consumers, the four Canadian PCS carriers and equipment makers like Nokia, Ericsson, Sony, Motorola, Qualcomm, and Northern Telecom has moved from a fox-trot of high fees, complex calling plans and clunky phones to a slick sexy tango involving simple flat-rate plans, easy-to-use prepaid calling cards, and cute and wearable coloured phones. A few years ago, only affluent business people could afford the high fees to the mobile dance. Recently, the service providers and equipment makers threw open the doors to the exclusive dance, when they realized they could make lots of money from a variety of other consumers. For the service providers and equipment makers, selling a cellphone is no longer just about selling air time to a select group; it's about representing the cellphone as a "cool" tool for as many people as possible.

According to an often-used quote from CWTA, the wireless phone is "the fastest growing consumer product in history."²³ Concerted advertising campaigns by the service providers, equipment makers and retailers may be having an impact on this popularity, but it is also no doubt due to the pop culture status created for the cellphone on TV and in film and cellulose. It has been made into a pop culture artefact through its association with adventure, espionage, high-style and now youthfulness. It regularly plays critical roles in television shows like teen sitcom *Clueless* and the thriller series *X-Files*. Characters can be on the go but always in touch via a cellphone. It has been the leading inanimate star in numerous films like the futuristic thriller *The Matrix* (1999), espionage adventure film *Ronin* (1999), the espionage film *Enemy of the State* (1999), and

the James Bond spy films *Tomorrow Never Dies* (1997) and *The World is Not Enough* (1999). For the role it plays in these films, the cellphone should get a credit. It's indispensable to the plot, suspense and action.

Despite our love affair with the cellphone, it is only one of several portable devices in a growing list of new communication tools that have recently become available to the general public. Many can be used to send and receive either voice or data, thus making them competitive with the cellphone, yet they don't seem nearly as favoured. Among the latest hand-held gadgets to stir consternation and praise are pagers, PDAs (portable digital assistants) or PIMs (personal information managers) like 3Com Corp.'s Palm Pilot®, portable video games like Nintendo's Game Boy®, laptop computers with wireless modems, portable mini disc players and portable CD players like the Sony Discman®, the new voice-activated MiPad® (multimodal interactive notepad) from Microsoft Corp., as well as MP3 players like Creative Labs' Nomad®, which is used to download and replay music from the Internet. According to the Boston-based telecommunications research and consulting company, The Yankee Group, the number of wireless data users in the U.S. alone will increase from an early 1999 figure of 2.9 million to 12.6 million by 2002.²⁴ These figures include users of various wireless devices like those listed above, not just cellphone users. Some commentators say we are in the midst of a "wireless revolution."

Gone are the days when 'going wireless' simply meant talking on your cell phone or receiving pages. A new era has arrived, one where the truly connected are able to trade stocks, write and send e-mail and retrieve important work files in the back of a cab, plus download traffic updates so the cabbie can figure out the fastest route.... And by 2003, digital networks should be large and fast enough to carry real-time audio or video on a cell phone or PDA... If it sounds improbable, consider that in gadget-crazy Finland, people are already using their cell phones to buy Coca-Cola from vending machines [*paying electronically by accessing bank accounts using the phone*].²⁵

We are using wireless devices like the cellphone to transform our culture, communities, and the ways we communicate. Some people say that communication is simply “the transfer of information from source to destination.”²⁶ It might have been that simple once, but communication doesn’t seem so simple anymore. The flow seems rather more indirect when we consider the numerous sources of information, that recipients are also now producers, that signals carrying the information are criss-crossing and bouncing off numerous instruments and converging in various media. I agree instead that the “process of communication is in fact the process of community: the offering, reception and comparison of new meanings, leading to the tensions and achievements of growth and change.”²⁷ I like this definition because it implies that the context for information exchange is important and it acknowledges that real people are involved in the exchange. People have agency and interest in the process of communication.

When a cellphone is being used, it is about where the talking is taking place; it’s about location in concrete places and in social structures and it’s about who is doing the talking. By using the cellphone, communication is no longer station-to-station; it is person-to-person. This fundamental shift in communication may be influencing the ways we define ourselves in relation to communication systems and community relationships. We don’t have to be in any one place to make or receive calls. The mantra of the telecommunications industry is that soon anyone can be reached anywhere, anytime and in just about any mode. Almost anywhere we travel with a cellphone, we can function like we do at home or in the office. In other words, this person-to-person shift in

communication may influence our local culture, where 'culture' is the social definition expounded by theorist Raymond Williams: culture can be "a system of meanings and values" and "a whole way of life."²⁸ How might our way of life be affected when we don't have to share a phone that's immobile? How do we define what is "private" against what is "public" if individually we take our intimate conversations everywhere?

This person-to-person transformation in communication that seems to be partly provoked by cellphone use is not taking place without some objection and resistance. Some of the objection can be found in news and commentaries in the popular media, often focussing on the bad manners of cellphone users or lamenting the demise of the public phone. Here's one lament.

Before pay phones became endangered I never thought of them as public spaces, which of course they are. They suggested a human average; they belonged to anybody who had a couple of coins. Now I see that, like public schools and public transportation, pay phones belong to a former commonality our culture is no longer quite so sure it needs.²⁹

Looking at statistics, we seem to be adopting the cellphone quickly, but even as we do, we also continue to struggle over how we use and represent it – both materially and symbolically. Some of this struggle is evident in how we negatively and positively associate it with our quality of life. In the May 1999 Decima survey, 80 per cent of wireless phone owners who were interviewed, agreed that "wireless communication devices improve the lives of those who use them."³⁰ In cellulore, there is ample evidence that attitudes toward cellphone use is still occasionally negative, as suggested in the commentary below

I was torn between diving through the TV set to extract some vigilante satisfaction and leaning back in quiet resignation. Here I was, gearing up to enjoy the 1996 Oscar telecast when actor Richard Dreyfuss stopped for a sideline interview while his eight-year-old son—a child, for heaven sakes!—chattered away on a cellular phone. It made me crazy. Long an

opponent of this latest in technological convenience, I wanted to tear my hair out. Or the kid's hair. But, instead, I slumped back in my chair, the last sensible holdout on this planet, finally resigning myself to reality. The cell phone is here to stay... You see them everywhere. In cars, restaurants, gyms, supermarkets, swimming pools, race tracks, probably in the middle of the desert. A fella may be out of work and pounding the pavements, but he'll have his cell phone handy. A nanny pushing a baby carriage in a park reaches into her diaper bag and pulls out—yes—a cell phone...³¹

Some people say the cellphone and other portable devices are helping us to liberate and revolutionize cultures, communities and communication. They associate its mobility with freedom. When PCS licensees were announced in Dec. 1995, Industry Minister John Manley, said as much in a press release: "This is the dawn of a new era. More Canadians will have access to small, low-cost and fully portable communications systems that will offer services unheard of until now... Telecommunications represents one of Canada's greatest competitive advantages in the global knowledge-based economy."³²

Like the minister, others also claim that individual prosperity and knowledge depends on having constant and instantaneous access to information and that the cellphone is now an indispensable tool in their busy fast-paced lives. However, if using a cellphone means preferred access to information in real time, will landline phone users be at a disadvantage that results in them being information poor? Is our use of this communication tool helping to create further inequality in our communities? Though the PCS licences granted by Industry Canada provide nearly national coverage, no promises of universal access were made, only service provision to the greatest possible number of Canadians. Though universal access is implied in the "anyone, anytime, anywhere" mantra used to describe cellphone use, this mantra really only addresses geographic coverage. It doesn't address the second part of universal

access, which is affordability. Can most people in Canada afford the equipment and service charges associated with owning a cellphone?³³

Some people claim that our use of the cellphone is helping to hasten the destruction of traditional values and practices associated with the cultures, communities, and ways of communication we have naturalized and grown accustomed to, including our use of the public telephone. Others claim that cellphone use is helping to broaden our definition of what constitutes the constructed symbolic and physical boundaries of communities.

Our use of the cellphone and other wireless technology is highlighting how unequal access to the device is affecting the lives of others and provoking a shift in our understanding of geographic community. Recent changes to area codes in urban centres with crowded airwaves is one example. Toronto, Montreal, Winnipeg, Houston, Chicago, Denver, New York City and other places in North America are implementing new area codes as the North American Numbering Plan is taxed to the max because of a proliferation of cellphones, fax machines and multiple landline telephones and data lines. In the Montreal area, the 514 area code was recently split to create the new 450 code. In March 2001, Toronto is scheduled to introduce the new 647 area code as a overlay to the existing 416 code, which is nearly exhausted. New numbers assigned in the 416 area will start with 647. This will in fact be a 10-digit phone number. This situation already exists for calls placed between 416 area codes in Toronto and 905 area codes in Mississauga. Some people predict that the entire North American Numbering Plan "could be exhausted as early as 2005, opening the door to 11, 12, or 13 digit phone numbers."³⁴

After the overlay is implemented in Toronto, old and new neighbours who live on the same street will have to dial different area codes to call each other. The cost of implementing the new 647 code in Toronto is estimated at \$200 million. Some people in the telecommunications industry predict that the cost for these changes will end up trickling down to all consumers of telephone services.³⁵ In New York city, the impending code change has caused a kind of cultural or identity crisis.

Since the creation of the North American Numbering Plan in the 1940s, Manhattanites have been identified with the singularly powerful 212 area code... 212 is all but used up, so some newcomers to the city and those moving from one neighbourhood to another were recently greeted with the chill of a new prefix in their lives. With the exception of the devilish 666, it is probably fair to say that never before in the history of mankind has a series of three numbers caused so much consternation as the launch of the new Manhattan area code... "To get stuck with the 646 number is like a tattoo saying you're a newcomer to New York. That's horrible for your social status."³⁶

Whether such changes can be deemed positive or negative, it is important to note that it is not this particular phone device itself or other wireless devices which are provoking change. It is the ripple effect of how we value their use, when, where, and for what purpose we use them, as well as increased use, that provokes reaction and change.

The evolving power, meaning and value of the cellphone in our lives also depends on how we are choosing to represent it in language — how we talk about, it including the kind of cellulore we tell, and how advertising encodes it with specific meanings through oral and visual depiction. This thesis will focus on how our use and representation of the cellphone is transforming communications, urban communities and cultures and specifically, how these

transformations are being played out through social practices in public, including attempts to regulate use.

This thesis will use the cultural studies model detailed in *Doing Cultural Studies: the Story of the Sony Walkman*, which analyses the biography of a cultural artefact in terms of a theoretical model based on the articulation of five continually overlapping and intertwining processes: representation, identity, production, consumption and regulation.³⁷ Together these processes are called the “circuit of culture.” The processes in the circuit of culture will be used to interpret how particular social practices and resulting discursive tensions illuminate material and symbolic conflicts being fought over the cellphone, as it is being represented and naturalized in visuals and text, designed and produced in miniature size to feed the trend toward wearable media and consumed as part of a constructed “cool” trend and wireless revolution.

The model circuit will also be used to interpret the strategies and tactics being used to regulate cellphone use through formal and informal means and how the phone’s social identity is being made synonymous with progress and associated with particular groups of users. Traces of these unfolding processes will be sought in articles and in promotional text and images from popular publications and from telecommunications industry publications and reports. This content on the cellphone will also be used to flesh out how opinions on taste and status function to create lifestyle themes which we use to gauge quality of life, to evaluate our system of meanings and values, and to understand our personal identities as well as our whole way of life. This thesis is an opportunity to document the cultural variation of a communication phenomenon: a cellular phenomenon.

In some ways, the struggle to accommodate and to resist cellphone use in public has a similar tone as the struggle that transpired over the Sony Walkman.³⁸ Until Walkman use gained wide exposure and acceptance, people could not easily make sense of it. It simply seemed odd and out of place, especially in public. Most people certainly could discern that the Walkman was just a new type of portable cassette-player with headphones for personal listening. After all, the portable transistor radio had been available for nearly four decades and the Walkman was modeled after it. It was the novelty of the 'private-listening-in-public-places' aspect which created a disjunctive event and prompted discussion and judgement of the Walkman. Untethered from homes by its portability, radio and home stereo became the Walkman. It heralded a new form of 'mobile privatisation' and provoked much discussion about its use. Even while a person was physically in one place, the soundtrack she was hearing from her Walkman could virtually take her someplace else. Some people were of the opinion that private listening should not take place in public; it was labeled bad manners. People are noticing that cellphone use in public is provoking a similar response. Here's an example.

The first incoming call on my PCS phone came while I was walking along Ste. Catherine St. Weird feeling. You're cruising along, enjoying the pleasure of a downtown stroll—window-shopping, people-watching, panhandler-avoiding—when suddenly you hear a muffled sound and feel a slight electronic vibration. It takes a moment to realize what is obvious to passers-by: your pants are ringing. Depending on where you carry your phone, this might be a warm feeling. But it's usually accompanied by a chill emanating from people within range of the ringing of your trousers. People who don't have wireless phones resent people who do. Unlike the Walkman, a fabulously successful toy that shuts out the world around you, a portable phone invades public space. Wireless communication pits technology against social convention—and don't bet on Miss Manners against the digital juggernaut. With PCS barbarians ringing and blathering at the gates, the forces of civility are attempting to impose some degree of order.³⁸

A degree of order has been imposed on the Walkman by banning its use in some places like libraries and setting rules about volume levels to control noise leakage while it is being accommodated and used in other places like in museums by visitors as they walk through while listening to guided tours. Although our use of the Walkman no longer seems odd to most people, there is no consensus on a single identity or purpose; a singular meaning. It is this lack of consensus or multitude of meanings which keep the discursive tension alive. While we recognize its material function as audio equipment for listening or recording, it has different symbolic meanings or social value for different people because of how, when, and why it is used, as well as how it is represented. In *Doing Cultural Studies*, the authors write that the "Walkman was articulated to both utopian and dystopian visions of various kinds, being positive as, on the one hand, the purveyor of choice and increased freedom for the individual and, on the other hand, as the destroyer of public life and community values."³⁹

After several years of discursive tension—strands of which linger even today—the Walkman and its many imitators are now part of the cultural universe of our everyday lives. It has been marketed and sold worldwide to the extent that "Walkman" has become an international metonym for portable cassette players with headphones. A recognizable transformation has taken place. Like with other communication technology that came before it, we have found ways to accommodate the Walkman within distinct sets of meanings and practices. We have made sense of it and shaped its identity by associating it with particular signifying practices and semantic networks, specifically ones related to mobility, urban living and youthfulness. The Walkman has become "a sort of metaphor which stands for or represents a distinctively late-modern,

technological culture or way of life."⁴⁰ It blends in with the constant mobility that defines many urban cityscapes. It can be carried (or worn) to be used just about anywhere, anytime, by anyone (young or old, of any race or class who can afford to acquire one). It has become a familiar way of inducing a "public privacy" in one's own sound bubble while in the midst of a crowd.

Our use of the cellphone has added new twists to the notions of mobile privatisaton and public privacy and to the trend of wearable media that our use of devices like the Walkman only began to stimulate. Now as a result of advances in signal processing and semiconductor chip technology, much of the media that we once kept in our private places of leisure or work, have been miniaturized so that we can carry them with us just about everywhere and feed our multi-tasking fixations. We can take our radios, computers, faxes, printers, and telephones with us. Equipment makers are aware that using these communication devices in public causes some consternation. They have responded with new gimmicks and designs which have resulted in the cellphone being one of the first wireless technologies to demonstrate convergence. Several older technologies and communication tools which have converged in the cellphone include clocks, video games, and AM/FM radio. In some cases, cellphones also function like PDAs and computers in order to send and receive data like email. From the very moment when the cellphone was launched publicly, convergence has been a key design and service factor, encompassing "merging services, merging technologies, merging products, merging networks, merging markets and industries, merging telecommunications business enterprises within a discipline."⁴¹

There are cellphones that can be dialed using voice activation in order to avoid the loud beeping of push buttons being dialed. There are headphones that can be attached to a cellphone to provide hands-free talking. For a change from the common irritating ring tone, some phones can be set to vibrate instead of ringing or be programmed with different melodic ring tones, including snippets from classical compositions or mixes from club DJs.

Andy Hewiston, BC account for Nokia... says the industry is aware of the problem of cellular telephones ringing at the wrong place and time. In response, manufacturers are now designing telephones with vibrators and softer sounding rings. They are also working on a phone that sits in a user's ear, like a hearing aid. Both the ringer and microphone are built in and the dial pad can be worn like a pager on the belt. When the telephone rings, a small beep is heard in the user's ear.⁴²

Some people are making futuristic predictions that the next step up in convenience for cellphone users will be to have a tiny phone implanted in their head or ear. After all, according to some commentators, it seems as though some people already have a cellphone implant because their phones are constantly at their ears. These futuristic predictions suggest that some people may be fearful that our growing demand for the cellphone will change our basic human condition. This fear (or sometimes a welcoming) of bodily invasion provoked by the cellphone has been a consistent theme in cellulore for the past few years. Here's a recent example.

...the true cellular obsessive wouldn't be caught dead walking around holding a clunky, oh-so Eighties, Mars-bar-sized phone... True cell jerks use earsets. Not headsets like those losers at the Gap or the Tim Horton's drive-thru. Earsets... The teensy plastic receiver-microphone that goes in your ear is attached by wire to a palm-sized cellphone that can be hooked onto your belt, or slipped into your pocket. These invisible gadgets are a way of life in New York and London, where herds of cell jerks roam the streets untethered, yammering into the urban smog... The key to the earset is its invisibility, for the more unobtrusive cellphones become, the more intrusive they are in the mind of the user. Earset users don't talk on the phone. They are the phone.⁴³

In cellulore, differences of opinion or meaning about the impact of cellphone use on social relations are played out alongside fears about the potential health risks caused by cellphone use. Underlying these fears is the negotiation over the use of cellphones in public places and struggles over the definition of “public”.

Claims of health risks posed by cellphone use are equally bizarre and profound. Signals from cellphones have been blamed for disrupting ABS brakes and other electromagnetic systems in cars, which could result in accidents. A study from Toronto’s Sunnybrook and Women’s College Health Sciences Centre, which was published in the *New England Journal of Medicine*, found that for people who use a cellphone while driving, their chances of having an accident is increased fourfold.⁴⁴ The same study found that using hands-free cellphones are no safer than conventional hand-held ones.

At some gas stations in Finland and Britain, a cellphone cannot be used because it is believed that electronic impulses from the phone could ignite fires if gas fumes are present.⁴⁵ A few Canadian gas stations have also recently banned use of cellphones near gas pumps for the same reason.⁴⁶

Some people have fought installation of cellphone transmission antennas on school, church, and apartment rooftops using the argument that neighbourhood residents are at risk of being bombarded with high rates of electromagnetic radiation, especially children because their small bodies quickly absorb even small doses of radiation. Here’s an example.

Last winter, a citizens’ group lobbied successfully to have a cellular antenna removed from the cross of a Pentecostal church in Vancouver. A Fraser Valley man, convinced that the tower near his home was giving him headaches and aching bones, nailed sheet metal to the roof and walls of his home. In Saanich the local council refused to let Microcell Telecommunications put up a tower because of health concerns—even

though the Capital Health Region and the Ministry of Health assured councillors the risk was negligible. No proof exists that cellular towers threaten health. Experts say that unless a person is standing right beside the tower, his exposure to electromagnetic energy is far less than if he watches his dinner heat up in a microwave oven.... The cell tower panic is a serious concern for cellular companies. Wireless phones are increasingly popular, and new towers are needed to keep up with demand.⁴⁷

Some people claim that electromagnetic radiation produced by a cellphone may increase the user's risk of getting cancer or tumors. Cellphone makers and service providers claim that most radiation has been eliminated through introducing protective phone shields (which they often sell at an extra cost to the client) and through modifications that angle the phone's antenna away from the user's head. Contrarily, a study published in the *Medical Journal of Australia* concluded that incidences of brain tumors in Western Australia had "risen parallel with the rise in use of cellular telephones."⁴⁸ Another study published in the *New England Journal of Medicine* claims that signals from cellphones may interfere with pacemakers and, therefore, people who use pacemakers shouldn't also use a cellphone.⁴⁹ Opponents of cellphones argue that we are all at risk whether we own and use a cellphone or not because others are using them all around us. If that cellphone antenna is no longer pointed at the user, it's pointing at someone else—like dangerous second-hand smoking. In 1998, it is estimated that 5000 to 6000 antennas were installed across Canada for cellular service.⁵⁰

People who think that cellphones are being used more often are correct. According to the May 1999 Decima survey, 28 per cent of wireless owners use their phones more than 20 times per week. "Comparing figures over the past three years, it can be seen that more people are using their wireless phones more often."⁵¹ I suggest that it is also the sound of the cellphone user's voice that is

likely making increased cellphone use so noticeable. The ‘private-listening-in-public places’ aspect coupled with the uncommon sound of ‘private-talking-in-public places’ makes cellphone use stand out and seem exceptionally odd, if only for the moment.

According to Carolyn Marvin in *When Old Technologies Were New: Thinking About Electric Communication in the Late Nineteenth Century*, telephone use in the nineteenth century was mostly a public activity, for very few people had a private phone at home. Also, technical assistance was often required to use one. However, over the past few decades, even operator assistance has ceased to be a necessary part of using a phone. Its use has been domesticated. And now a host of technological changes, many of them coming together in the cellphone, as well as content and service changes are shifting our perception of the utility of a phone.

At the start of the 1990s, most Canadians had one telephone company to choose from. That local service provider would show up (usually “sometime between 9 a.m. and 5 p.m.”), hook up your home telephone to the main lines outside and leave. When the phone rang, you had no way of knowing whether it was your best friend or someone trying to sell you a newspaper subscription. If you were out, you’d use a pay phone. And when your phone bill arrived every month, you paid it, and that was that. But nowadays, the number of choices – and the breadth of telecommunications products and services available to the average consumer – is nothing short of mind-boggling....⁵²

Until the advent of the cellphone, talking on the phone had become an intimate activity that took place in the closed privacy of a home, an office, a phone booth: station-to-station. Phone service was defined by the carriers for either business or residential consumers. Now the phone companies have created definitions of customer types that are much more specific than just business, residential or even mobile. The way these definitions work to blur

distinctions between private and public places will be explored shortly. Generally, we consent that public places are for broadcast or amplification of privileged or official voices, or for no voices at all. Public places are not for broadcasting everyday conversation by ordinary people. This is our current definition of public, but it may not remain the same definition. "The identity of a place... is always, and always has been in process of formation: it is in a sense forever unachieved," writes Doreen Massey.⁵³

Complaints about cellphone users breaching the sanctity of public places is reiterated often in cellulore. It invites familiarity and mimics broadcasting some people say. Some people call cellphone conversations unnecessary noise. It makes some people uneasy. This seems like a rather odd opinion for city-dwellers to hold, considering the abundance of urban noise that already exists. Just the wailing alone of car alarms and sirens from fire engines, police cars and ambulances and the constant beeping of watches, beepers, and handheld computer games make the urban soundscape constantly loud. Yet, the opinion that the sound of people talking on cellphones in public creates more noise is a recurring sentiment in commentaries on cellphone use. Here's one example.

Unfortunately there are people who either have the audacity or naiveté to assume that others enjoy hearing intimate conversations.... Travellers who listen to radios en route are required to use headphones out of consideration.... There is no doubt that cell phones are desirable for emergencies and provide a sense of security to many people, but their indiscriminate use should be curbed before every teenager and compulsive talker has one in their pocket. I can't help thinking that in the future cell phone operators may have to make their calls outside, or from cars, like smokers. There was a time when public phones were situated in an enclosed booth and one's conversation was private, but progress ended that and discretion has given way to an increase in distracting noise.⁵⁴

In private places, away from the public places of the city, we can control some of the conditions including the level of noise or general soundscape. In

public, when someone uses a Walkman to tune into a personal soundtrack, other people on the bus or train don't participate. They don't hear the soundtrack. But conversation on a cellphone in public spills over the boundaries of the private bubble and makes people uneasy because it is unfamiliar and seemingly one-sided. Other people are involuntarily included in the conversation, but they don't participate in it. This uninvited familiarity creates uneasiness and even irritation, for we generally don't share intimate details of our personal lives with strangers, yet this seems to happen occasionally when we overhear the conversation of a person using a cellphone in a public place. Using a cellphone is "neither simply public nor simply private."⁵⁵ Familiarity and intimacy are key characteristics for defining private spheres like home because in an ideal situation, we recognize the people there and are in turn recognized by them and share in their conversations.

Doreen Massey writes that we can better understand the identity of places by thinking of them as "articulated moments in networks of social relations and understanding" or as "envelopes of space-time."⁵⁶ What practices are carried out or what social interactions happen in a particular place at a certain time helps to define the identity of that place. If places are constantly being constructed through our activities and experiences there, our individual and societal perceptions of the identity of places may ultimately come into conflict. Cellphone use is provoking such a conflict now. It is a conflict of practice and place that may result in a new definition of "public."

Below is a portion of a letter to an etiquette consultant from a woman complaining about a breach of her perception of private-public boundaries. The angry tone of the letter is echoed in several similar letters I have read about

cellphone use. The writers are mostly offended by what they identify as lack of manners or a flaunting of values and good judgement. Public cellphone use offends their sense of social order related to appropriate private and public practices.

Dear Thelma: I know this is a frequently asked question, but I have yet to come across a satisfactory answer. What does one do about people who conduct loud conversations on their cell phones in public? During a railway journey I had to make a few weeks ago, a woman in the seat across from me spent a whole hour yapping inanities into her phone to some friend in a voice so shrilly penetrating I began to wonder if one of the train's axles had seized up.... Well it was all I could do not to smack her. Thelma, tell me: am I just being petty and resentful because I don't happen to own a cell phone, or am I right in thinking that such locomotive loquacity is a terrible new blight on our civilization?... *Dear Paula: no, and no. It is important to be precise about what it is that has really offended you here. It was not, I would venture to suggest, so much the particular instrument of communication you objected to, or even the fact of its being used in such a venue, but simply the user's refusal to recognize your legitimate need to know.... Cell phones don't bore people – people do. The blight arises not from the technology but from the alarming abundance of graceless, charmless nonentities who cannot imagine that their personal lives might not be of such overwhelming interest and importance that complete strangers would be eager to receive broadcast bulletins about them....*⁵⁷

Some people are suggesting that it is necessary to impose informal rules or even formal laws to control the use of cellphones in public. In some people's minds, they are as dangerous as lethal weapons. The etiquette consultant quoted above says, "Cell phones don't bore people – people do," a phrase that echoes the cliché that "guns don't kill people – people do." Another writer suggests that "check your guns, knives and cell phones at the door," should become standard signage at entrances to restaurants, lecture halls, churches, meeting rooms, and anywhere else people are inclined to use a cellphone.⁵⁸ To some people, the cellphone is like a lethal weapon possible of causing grievous societal harm and, as a result, its use should be regulated like other weapons. This may seem like an outrageous claim, but maybe it is not a totally inappropriate hyperbole. Like a

gun or a knife without someone to wield it, the cellphone alone does not affect our everyday lives or pose a threat. It is just an instrument, like guns and knives but their use is regulated by law and their value and meaning are constructed based on how we use and represent them in popular media. How we represent the cellphone is creating a great deal of discursive tension that is worth examining.

However, rather than studying the cellphone and its use through a more traditional communications model that might focus tightly on the instrument itself or on regulation and competition within the Canadian telecommunications industry, I am choosing to try the interventionist approach of cultural studies which seeks to demystify relations that define and value certain knowledge, cultural practices and power relevant to various technologies. I am making a self-conscious choice to identify and look at a communication phenomenon and the discursive tension surrounding it which are occurring in the social, cultural and political context of this modern society in which I also live.

I am choosing a path of discursive analysis that is now well-trodden by many students after being paved with concepts by theorists like Raymond Williams, Doreen Massey, Dick Hebdige, Michel de Certeau, Carolyn Marvin, Paul du Gay and Martin Allor. Many anthropological, political, sociological, linguistic and literary concepts have helped to define cultural studies practices. Though I've read just a few, among the concepts that greatly influence the tone of this thesis are Williams' strong disavowal of technological determinism and his assertion that new technologies like the telephone are consciously sought, developed and consumed and his examination of how value is deliberately assigned through definitions of 'culture.'

The work Williams did to explain and expand 'culture' seems to have become invaluable to other theorists like Hebdige and du Gay. They often reference Williams' notion that culture is not just 'the arts,' not just 'a system of meanings and values,' but also 'a whole way of life' as he stated in *Marxism and Literature* (1977) and in other writings. Williams' definition brings 'culture' down from the stratospheric heights where it was hung and situates its practices in the lives of ordinary people. The definition acknowledges the agency of real people in the production and consumption of culture.

Theorists like Hebdige, du Gay and Marvin have used Williams' dynamic definition of 'culture' as a basis to argue for the importance of studying the processes that make seemingly mundane objects and practices meaningful in particular contexts. Hebdige's study of British subculture styles and their rebellious undertones in *Subculture the Meaning of Style* (1979) and in *Hiding in the Light* (1988), du Gay's study of the discursive tension surrounding the introduction of the Walkman in *Doing Cultural Studies* (1997), and Marvin's examination in *When Old Technologies Were New* (1988) of the moral panic directed at the turn-of-the-century telephone all draw from the idea that objects are signifiers of value and taste within our everyday lives. As they demonstrate in their studies, conflicting definitions and uses of seemingly neutral objects generate social discourse and create discursive tension, especially when they are new or novel, as is happening now with the cellphone.

Other theorists like Massey, de Certeau and Allor demonstrate how social discourse and discursive tension provoked by particular cultural practices are manifest in various texts and contexts, not just in isolation in official discourse or in privileged places. Furthermore, they argue that such practices can define and

transform the contexts in which they occur. So for Massey, the meaning of places are fluid because the various or changing cultural practices happening in a place define it differently during different moments and for different social groups and individuals. As a result, symbolic and material conflicts of practice and place can occur. She argues for a fluid understanding of places through defining them as envelopes of space-time.

For de Certeau also, places are social constructs, which means social groups and individuals are situated differently in relation to the dominant definition of places. He argues that people make personal and meaningful space within defined places through the use of particular tactics which challenge the strategies maintaining a place's dominant definition. Once again, conflicts of practice and place can occur as a result of competing strategies and tactics.

In his article, "Locating Cultural Activity: The 'Main' as Chronotope and Heterotopia," Allor too argues that places are social constructs with boundaries that are both geographic and imaginary. He demonstrates how competing versions of one neighbourhood's identity can be found "across a heterogeneous set of texts within current public discourse", including oral and literary narrative." Like Massey, he illustrates how the same locale is represented differently by various social groups so that the identity of the place is not fixed, but rather more like a project or process that is ongoing.

These demonstrations of agency (making space and making narratives) and the legitimization of popular texts and discourse greatly influence the focus of my thesis on an emergent cultural practice that's being created right now and that is partly evident through cellulore. I am also indebted to these theorists for their focus on mobility whether it be about riding a scooter (Hebdige), walking

or riding the train (de Certeau), using a Walkman in the city (du Gay) or cruising Boulevard Saint-Laurent (Allor). This recurring focus on mobility has provided several different lenses through which to regard William's notion of "mobile privatisation" so that I could consider its relevance to a modern public context beyond the domestic context in which Williams defined it. The mobility that Williams described in *Television: Technology and Cultural Form* (1974) was symbolic of people's desire to reach out into the world in the 1920s by welcoming radio broadcasts into the family home and to signify their social status (upward mobility) through the consumption of radios and other appliances. Today, increased mobility is more concrete and through the consumption and use of appliances that were once nailed down, like the telephone, people are bringing the domestic or private into public places, which is provoking conflicts of practice and place and of value and taste (or culture).

Chapter 1: Representation, Identity and a Phone for the Urban Nomad

The first time I heard a cellular phone ringing, I was riding in a public bus. Its warbling ring seemed as out of place as the conversation that transpired when it was answered. I had heard of cellphones, had seen the ads for “Fido” and “Amigo,” but I had never actually been in the presence of someone using such a phone. While it rang, many people on the bus turned to search for the source of the sound. When the owner of the phone answered it and became engaged in conversation, people continued to stare at him with when I recall to be some bewilderment. I suppose we stared as part of our effort to “make sense” of a particular activity that seemed mostly familiar, yet which many of us had may never have witnessed or participated in before. The phone being used in the bus was not attached to a line. Like the Walkman when it was still new...“Just looking at the device would not help, for the machine could not speak or explain itself. It did not possess and could not express, its own intrinsic meaning.”⁶⁰

Now nearly three years later, when a cellphone rings while I’m riding in a public bus, I recognize the sound immediately and so do most other people it seems, for hardly anyone turns anymore to search for the source of the ring or to stare at the caller (except occasionally to throw a disapproving glance). A transformation has taken place. We have grown accustomed to these ringing interludes and open-air conversations on cellphones. These occurrences have become part of our modern city soundscape. No one stares in bewilderment anymore because cellphone use makes sense now. Many people know the meaning of it: our late-modern society is characterized by increased mobility, so

more people use a wireless telephone which they can take just about anywhere. It is unlike the plain old landline telephone we have been using over the past few decades because it's portable.

The activity of talking on a cellphone, in a public bus which was moving through space and time created a new experience that required definition. The term cellular phone had yet to become part of our social discourse. Over a period of what seemed like mere months, however, a semantic network began to be created by mapping this new activity onto similar activities that we already understood as part of the cultural universe of our everyday lives. Without knowing how cellular technology works in order to move signals through the radio spectrum using network communications equipment and antennas located in different cell sites, the word "cellular" by itself was not particularly descriptive. Coupled with "telephone," a term we knew quite well, we were able to get a sense of what this new device could do. After all, nearly all of us had a telephone at home or at work. Some of us had even used a cordless phone. Most of us certainly had seen or used a public phone. We knew that the phone is a communication device with the literal function of allowing us to speak with others and a figurative function of allowing people to keep in touch, as though we are reaching out with our voices to physically touch the other person we are speaking with.

Until the term "cellphone" became part of our social discourse, we could best understand the device through its association with the traditional landline telephone. The cellphone is a telephone without a cord, much like a cordless phone that you can take outside into the streets, without having to take an accompanying base unit that plugs into a phone outlet. In the mid-1990s,

journalists writing about the cellphone also called it a “pocket phone,” “handiphone,” “mobile phone” or “wireless phone,” but “cellphone” stuck. In the late 1990s, after four national licences for wireless PCS were awarded by Industry Canada, the term “PCS” became interchangeable with “cellular phone,” though the technologies are not exactly the same.

The first generation of the wireless phone for public consumption was the 1980s cellular phone. Cellphones work by sending sound signals through the radio frequency spectrum in the 800-900 MHz range. These analog signals are sent through transmitters located in different “cells” that cover several miles in radius. The precursor to the cellular phone was the mobile phone, usually a fixed phone located in a motor vehicle (like a police car) that was connected to a central office via radiocommunications. The second generation of wireless phones are PCS, which was introduced to the general public in 1996. PCS uses digital technology to convert sound into bits before transmitting the data through the 2GHz frequency range. Some people are predicting that third-generation wireless phones will be up to 200 times faster than current digital PCS phones, therefore, enabling quicker transmission of voice and data, including e-mail, video conferencing and Internet browsing. Cellular and PCS phones offer regional or national coverage, depending on which one of four Canadian wireless networks the user subscribes to. Wireless satellite phones offer global coverage because they send voice and data via satellites instead of terrestrial base stations.

Despite these differences in wireless phone technology, the term “cellphone” is often used in reference to all types of wireless phones. Frequently now “cellphone” is simply shortened to “cell,” which metaphorically sounds like

a unit of “one” or and literally sounds like “self.” The individuality of using a cellphone is also echoed in the term chosen for the second generation of cellphones: PCS or personal communications service. With PCS, as with the use of “cell,” the word “phone” is no longer necessary as a descriptive term. The very word “cell” conjures up an image of the device itself, the technology that makes it work, and the semantic network we have created for it. The idea of the cellphone as a singular unattached instrument that one person can take anywhere is echoed in the word “cell.” Since the phone is portable, sending and receiving calls need no longer be station-to-station. Someone with a cellphone doesn’t need to be at home or at work or in a phone booth to receive a call. Using cellphones makes communication person-to-person or phone number to phone number, rather than station-to-station. A cellphone number represents a person—not a place—much like an email address which does not represent a physical address in a fixed neighbourhood but rather, a virtual identity. For some telecommunications commentators, this development is a pivotal moment for the industry.

Statistics show that, for up to 80 per cent of the calls made to all homes and offices in North America, the person we want is not there, and what may be a near-endless game of telephone tag then ensues! Instead of a shared fixture, physically tied to a particular place, our telephone will become truly personal. Each of us may carry one most, if not all, the time everywhere we go. Our telephone number will be personal as well, enabling newly intelligent digital networks to locate and ring us anywhere. Telephone tag will be minimized or eliminated and people will generally communicate in new ways, at different times and in some very different places.⁶¹

So telephone tag will be replaced by the electronic tag of a cellphone. The idea of a phone for each individual inflects the word “cell,” which has traditionally defined a small room such as one in a convent or prison, or

microscopic biological protoplasm, or a small political and occasionally subversive group. No wonder the word “cell” has quickly become so meaningful in social discourse through its extension from these older definitions along a kind of “chain of meaning.”⁶² Our new use of “cell” seems to encode so well the individuality associated with using such phones, the experience of singular person-to-person communication, as well as the miniturization and invisibilization of the device as it has been shrunk from brick size to implant size – small as a cell. With these connotations, it’s also no wonder this new social practice has attracted some negative attention when it appears in public. Such a self-conscious social practice and invasive metaphors contradict how we have defined and privileged public space over private space.

During the writing of this thesis the words “cell” and “phone” have morphed into one word, “cellphone.” This morphing may be a function of further linking the cellphone to an existing “chain of meaning” in order to shape its identity. As part of the “chain of meaning” we have used to define “cell,” some connotations associated with the landline telephone are now clearly part of the cellphone’s semantic network. Although the cellphone is not literally attached to a line, like the traditional landline telephone it maintains connotations of being a “lifeline” to use for emergencies and to keep in touch with family, friends, colleagues, and others. In advertising, service providers have played on these connotations by touting the cellphone as a life-saver in emergency situations, a necessary tool for business people, and an electronic tag to help families keep track of adolescents and other family members.

In British Columbia, cellular carrier Telus Mobility created an ad campaign in Fall 1999 featuring real-life stories of people saved or saving others by using a

cellphone in emergency situations. "The kicker? Cellular saves lives."⁶³ Telus Mobility spent \$150,000 on radio ads and billboards to spread its "transcendental" message.

In the Decima survey on "Usage and Attitudes Toward Wireless Communications in Canada," 80 per cent of 606 wireless phone users agreed in general that "wireless communication devices improve the lives of those who use them."⁶⁴ In its functions as both news and promotion, cellulore often includes glowing testimonials from people affirming the value of the cellphone. Sometimes it seem like the cellphone has revolutionized their lives. Here's a tame example.

For thousands of Calgarians... cell phones are evolving from an ostentatious status symbol to an indispensable link to their families, their business and their futures... It's annoying when a purse or briefcase starts to ring at the next table during lunch—but for some business people, it's the sound of survival.⁶⁵

Mobile Choice, a British magazine that's available in Canada, runs a regular column entitled "Business Feature," in which it interviews professionals who attest to the value and importance of having a cellphone. The glossy magazine, which carries the tagline "Mobile phones made easy," has interviewed plumbers, management consultants, journalists, publishers, private investigators, and travelling salesmen, just to name a few. Effusive testimonials from those interviewed are not uncommon. In one interview, Ken, a travelling carpet salesman, says "his productivity has increased significantly since he was issued the mobile."⁶⁶

Make no mistake, the smartly-named magazine is a flagrant cover to cover advertorial for the cellphone, but reflected in some of its content are examples of some unique meanings acquired by the cellphone as a result of how

consumers are using it. These new meanings were not previously associated with the landline telephone or with the early cellphone of the mid-80s. They include associations with instant access to information, speed, mobility, new technology, professionalism, status and upward mobility, including so-called yuppie lifestyles. These wider connotations help to pinpoint the developing significance of the cellphone and to further differentiate it from its direct predecessor and also from other new communication technology. These connotations that have become associated with the cellphone support the notion that “meanings are not simply sent by producers and received by consumers but are always *made in usage*.”⁶⁷ Some of the connotations also trigger themes that were once associated with the Walkman: “themes associated with late-modernity as a distinctive way of life: the lonely figure in the crowd... the emphasis on mobility and choice; the self-sufficient individual wandering alone through the city landscape... the urban nomad.”⁶⁸ These connotations are frequently reported and recreated in cellulore.

A bit of cellulore that appeared on CBC-TV National news went so far as to note how indispensable the cellphone can be to someone who is really nomadic: “Among the semi-nomadic Bedouin, there is no electricity, no plumbing, there are no regular phones. But there are cellphones. ‘My cellphone is my best friend,’ says Mohammed El-Hirish. He charges the batteries every night, at a nearby village.”⁶⁹

The cellphone’s association with mobility is tightly intertwined with its association with things “modern” and with status. Probably part of what made the story regarding the Bedouin man so curious to the CBC reporter is the connotation that his use of a cellphone is recognizably modern to those of us

even in the West, and especially in the midst of his obvious low-tech environment. It's as though viewers were being told, 'see, even truly nomadic people benefit from using cellphones.' It could even be said that this bit of cellulore gives the cellphone added credibility because it is being used by a semi-nomadic person, who may cover more territory in his travels than an urban nomad. Connotations reported and recreated in cellulore help to expand the theme of mobility and freedom associated with the cellphone and, consequently, also its semantic network, cultural value and consumer desirability. In fact, cellulore may be a moment of "articulation" in which the five processes in the circuit of culture collide and collude. In cellulore we can find reports and clues about how the cellphone "is represented, what social identities are associated with it, how it is produced and consumed, and what mechanisms regulate its distribution and use."⁷⁰ For this thesis, cellulore is my best source of evidence for how consumers are using the cellphone in their everyday lives and how it is being made a meaningful cultural artefact by producers and consumers, even while such meanings are being hotly contested.

Another frequent connotation echoed in cellulore is "the very 'modern' practice of being in two places at once, or doing two different things at once."⁷¹

Here's an example.

"...for each of us solitude-seekers, there must be dozens of cell-phone addicts. I'm calling from my car/ my boat/ my bike/ my rollerblades,' they announce, not realizing that moving through space is a time for contemplation, not communication."⁷²

For urban cellphone users, this two-places-at-once practice allows them to never be out of touch and to sustain the hustle and bustle of modern living by using a cellphone while doing other activities. It is a behaviour that has become a

signifying urban practice. In Israel, the cellphone is also called the “talkman,” a term that points to the significance of mobility to the cellphone and to the two-places-at-once practice.⁷³ We recognize this two-places-at-once behaviour as signifying practice because we understand that it has become a characteristic practice of our fast-paced, late-modern society. While we may understand the meaning of this signifying practice, there is no consensus on its value. Some people think that our emphasis on speed and real-time activities are downright dangerous. A Quebec coroner recently called for an investigation into how cellphones are being used on the road after he concluded that the inattention of a driver fiddling with a cellphone may have provoked an accident and caused the death of another driver.⁷⁴

This two-places-at-once practice is a modern update of a condition that theorist Raymond Williams called “mobile privatisation.” Williams created the term to describe “two paradoxical yet deeply connected tendencies of modern urban industrial living: on the one hand mobility, and on the other hand the more apparently self-sufficient family home.”⁷⁵ He describes how “consumer durables” brought into homes beginning in the 1920s, especially radio, made families focus more on a home-centred way of living. At the same time, families also became mobile in a metaphoric sense and travelled the world via radio broadcasts coming into their homes. Broadcasting resolved people’s impulse for mobility and made the seclusion of the family home more bearable.

In order to make “mobile privatisation” relevant to cellphone use, and I think it is relevant, the term has to be turned inside out. People now have more opportunities to travel the world—terrestrial mobility—and to buy more consumer durables—figurative mobility or status building. We have even

created distinctly modern conditions typified by mobility such as the virtual or satellite office with telecommuting employees or students studying through distance learning. The quantity and variety of broadcasting available for us to consume has also increased: from Internet, to video rentals, satellite television and computer games.

Cellphone use is different from the kind of mobile privatisation that Williams was defining because it involves private person-to-person communication using a tool traditionally associated with other appliances kept at home, but which is no longer used exclusively in the home. Cellphone users are figuratively taking an aspect of “home” into public places in order to do private talking. While most broadcasting can be typified as centralized transmission and privatized reception, cellphone use is a kind of privatized transmission with public reception because the person on the other side of the conversation hears and also other people sometimes overhear at least one side of the conversation if they’re in the vicinity of the user.

If Williams’ term is to be used to describe cellphone use, the theme of mobility needs to be more strongly modified by the other theme of privatisation. Mobile privatisation needs to be turned inside out and be expressed as “private mobilization”—a nearly succinct description of cellphone use in public and a cellphone for each person on the go.

While Williams used mobile privatisation to characterize the materialism of 1920s society, my use of “private mobilisation” is an attempt to emphasize certain conditions that are characteristics of our late-modern society: speed and mobility, status and individualism. The cellphone is being represented, produced, marketed, and consumed to meet and reflect these existing conditions. The

device isn't simply a "natural" success as some people in the telecommunications industry suggest. The cellphone meets people's desire to get information quickly, to continue being mobile, to be modern trendsetters, to display their own status and to read the status of others through using a cellphone. Meeting these desires are the priorities for service providers, equipment makers and consumers. Some evidence of these priorities can be found in the strategies used to deliberately expand the identity of the cellphone from an expensive tool exclusively for the business elite to a cheap popular accessory, a cool tool for everyone. Cellular carriers and equipment makers have invested billions of dollars into constructing cellular networks and building the brand for their service and equipment through advertising. They have made these investments because they expect to reap great profits. By early 1999, over \$9 billion had been invested in the mobile-phone communications infrastructure since 1987.⁷⁶

PCS is seen by both the service providers and the manufacturing industry as a major source of revenue generation. This aspiration recognizes the up to 40% annual growth in cellular and paging services over the last few years. It is predicted that there is a potentially large consumer demand for access to a wide variety of services that are available from any location.⁷⁷

Diverse factors are playing a part in expanding the cellphone's value, meaning and identity, including massive amounts of advertising from service providers, equipment makers, and retailers telling consumers that we need a cellphone, we need a newer cellphone, we need a cuter cellphone, we need a smaller cellphone, that having a cellphone can save a life, etc. I am not attempting to echo Max Horkheimer and Theodor Adorno's "culture industry" theory, which includes the notion that advertisers create "false needs" and consumers accept them rather passively. In *Doing Cultural Studies*, Paul du Gay

quotes Jean Baudrillard to explain that “meaning does not reside in an object but in how the object is used. Certainly, producers attempt to inscribe particular meanings into products... but that does not exhaust the meanings those objects may come to have when they are consumed.”⁷⁸ I want to indicate that cellular carriers and phone makers have the power to create advertising that includes a constructed emphasis on needing a cellphone for business competitiveness or for emergencies. However, though meanings created in advertising may be fixed, in our everyday lives, the meaning of the cellphone cannot be fixed because people use it in different ways and in different contexts to satisfy their fondness for private mobilisation.

Ad campaigns have been created that allow more and more people to identify with being a potential buyer and user of the cellphone. Because it was not yet part of our social discourse even just a few years ago, early advertising focussed on technical information and basic features. They included few real people. Any such ads were altogether rare and just about as interesting as the worst public service announcements. Over the past few years, increased and narrowly targeted advertising for cellphones has begun to include examples of typical product users and lifestyle themes. For example, Bell Mobility created a French-language TV ad for Quebec that highlighted the security of having a cellphone in a situation that’s specific to one of the province’s realities: the prominence of biker gangs. The ad is this.

A couple’s car [breaks] down and they [get] nervous when they [see] a Hell’s Angels biker coming over to their car. The twist is that he [offers] them the use of his cell phone to call for help. The message was, “We can really get you out of trouble...” During the security campaign, sales shot up....⁷⁹

This kind of representation and our signifying practices in relation to private mobilisation are expanding the cellphone's semantic network. The result is that some people are proclaiming a wireless communications revolution with the cellphone as the vanguard device.

At the end of 1997, there were approximately 207 million cellular subscribers worldwide. This included 70 million new subscribers in 1997 alone. In the same year, Swedish phone maker Ericsson forecasted that by 2003, there will be 830 million (or four times as many) cellular subscribers worldwide.⁸⁰

Behind the cellphone vanguard is a well-maintained system that has deliberately researched, created, and promoted numerous communications devices, including the landline telephone and now the cellphone. Producers and consumers are complicit participants in the system. Lack of identification with the deliberately-constructed wireless revolution, outright resistance to it, or competing and confusing meanings that have been created for the cellphone may be stirring some of the discursive tension around cellphone use in public.

Chapter 2: Producing and Consuming a Wireless Revolution

The 'wireless revolution' is all about taking voice and data to people on the move... The wireless world comes down to one thing—mobility. And mobility breeds greater mobility. So, as each successive layer of sophistication filters down from expensive, high-tech solution to inexpensive daily occurrence, more and more people will find the right communication tool, for the right job, at the right price.⁸¹

Opinions like the one above from some people working in the telecommunications industry suggest that particular technology and market drivers are the major influencing factors for the success of the cellphone. These include new microelectronics that help to make phones smaller and more portable, increased bandwidth that allows for quicker transfer of more information, mobile users' desire to converse in real time, and the convergence of other technologies and of communications services in the cellphone. PCS integrates the features of conventional mobile telephony with the choice and intelligence available through the use of computer networks. So, for example, users can choose a communication type (time-based video and audio or non-time based still images, graphics and text); delivery (in real-time for video conferencing or non-real time for downloading email); audience (one-way to user or user, point-to-multipoint to a designated group, or broadcast to anyone in the service area).⁸²

What service providers and equipment makers are not saying loudly is that they have deliberately mapped out and calculated the success of the cellphone in order to reap maximum profits. Plans for third-generation wireless are already well underway. I'm not suggesting that these are especially nefarious plans, just merely business plans for promoting the cellphone, including associating it with particular social meanings, and making profit. One of the first

stages of the plan was to introduce the cellphone as an expensive but indispensable tool for business users who desired mobile communication and could afford to acquire it at exorbitant prices. Despite the many disadvantages of using early cellphones, including spotty coverage, poor sound quality, weak batteries and limited talk time, analog signals that were easily intercepted by people using ordinary radio scanners, long-term contracts with heavy penalties for withdrawing, complicated calling plans and per-minute billing instead of per-second billing, the analog networks of the two first Canadian cellular carriers were congested by the early 90s and their subscriber base was growing. The two carriers who operated a regional duopoly from 1985 to 1996 were Rogers Cantel AT & T (of TV giant Rogers Communications Inc., Toronto) and the now-disbanded Stentor Group of companies, which was comprised of Bell and its partners across Canada. By late 1995, Industry Canada issued a notice that four PCS licences would be granted in the 2Ghz-frequency range to the two existing cellular carriers as well as to Microcell Communications Inc. of Montreal (formerly Canada Popfone) and Clearnet Communications Inc. of Pickering (formerly Telezone).

Microcell chose Finnish equipment maker Nokia as its supplier and "Fido" as the brand name for its service. Major shareholders include Shaw Communications of Calgary and Call-Net Enterprises Inc. (Sprint Canada's parent company). Most of Microcell's ads use dogs and occasionally people and dogs together to play on the cliché of "man's best friend," where in their case the loyal friend is the Fido PCS phone and service. Early ads included the tagline, "He's a loyal companion and he'll follow you anywhere." The message of Microcell's black-and-white TV ads is "reliability" and "simplicity." In one

Microcell ad with the headline, "Smile! Fido's got a treat for you," the phrases "Call him by name" and "You are the master" support the theme of "man's best friend."

Clearnet chose Japanese equipment maker Sony as its supplier. The choice of brand name for its service, Clearnet PCS, connotes clarity, no interference and safety (net). Most of Clearnet's ads use objects from nature like flowers and cute animals, colourful fish and salamanders, or industrious insects such as ants (not scary ones like spiders) to represent its service. The underlying message in many of Clearnet's ads is "simplicity." Its ads often include the tagline, "The future is friendly." This tagline is used in a Clearnet ad with a brilliantly coloured tropical frog and a bright green leaf. "Each ad also has a catchy proverb-like phrase that overlies the nature image. One ad, for instance, features a blue tropical fish overlaid with the headline, 'Offer someone a fish and they'll eat. Offer them an affordable wireless phone, and they can order out whenever they want.'"⁸³

Rogers Cantel AT & T chose Motorola and Swedish phone maker Ericsson as its suppliers. Its brand name, "Amigo Digital PCS," connotes dependability, like a friend who is reliable. Many of its early ads featured people in different emergency situations, like roadside accidents, to highlight the "convenience" of its service. Though "convenience" remains a part of Cantel AT & T's message, it has been updated and refined for specific market segments from business users to teens. In one Cantel AT & T ad featuring a cellphone looming over a montage of famous city skylines, the convenience of travelling through different North American cities and area codes with one cellphone is highlighted.

Bell chose as its suppliers, Sony, Nokia and American phone maker Qualcomm. By choosing Bell Mobility as the brand name for its service, Bell kept

a part of its already recognizable name and added a word that is characteristic of our late modern society and of cellphone use. The initial message that Bell associated with its service was “youthfulness” (represented by a 12-year-old spokesgirl in their ads) and the tagline, “There is a difference.” Recently, Bell and the other carriers have rolled out a stunning variety of ads targeting specific consumer segments. Bell’s latest print ads show male and female white-collar workers getting ready to escape the office for weekend fun, which one presumes includes still being in touch via Bell Mobility’s PCS service. The tagline for the ads is “Get ready for the weekend,” an enticing phrase that associates Bell Mobility with fun, freedom and escape from work. This phrase is used in a Bell Mobility ad where a woman is shown wearing corporate business attire with diving flippers while sitting at a conference table, presumably in a meeting.

This itemization of carriers, brands and equipment makers may be a bit tedious, but it is also the skeleton for a body of unprecedented Frankenstein-like advertising that loomed over consumers during the first years of PCS service being available. It was as though advertising for cellphones and mobile service doubled or tripled in just a few months in the late ‘90s. Quite suddenly, the ads were on outdoor billboards, indoor signs, TV, on film screens, radio and in newspapers and magazines of every stripe, from fashion to general interest, music, health, design and technology magazines. Not being a cellphone user, I was often perplexed by exactly what the phone makers were offering when they ran ads to promote their equipment and the carriers who used them, or when retailers like Radio Shack ran ads to promote cellphones on sale in their stores, and when the cellular and PCS carriers also ran ads to promote their services and in Bell’s case, its landline services too.

In many ads, so front and centre were lifestyle themes, fantasies, or appeals to ideal users that a cellphone was sometimes not even the dominant feature in the ad. Though current ads are much more diverse, these themes remain. In a Bell Mobility ad that appeared in *Canadian Business* magazine, the emphasis is on using their service to be professionally competitive (see Figure 2). The ad is dominated by a looming grey cityscape and lanes upon lanes full of cars driving into an early-morning urban haze. The tagline is, "The battle begins at 0700 hours. Mobilize the troops." I find this war-like phrase and the visual treatment to be quite unbelievably depressing, but the ad is for competitive business people so this tone is obviously what Bell Mobility hopes will appeal to them. "Bell Mobility's core market is businesspeople 18 to 34, says Rosanna Cavallaro, the company's director of marketing communications."⁸⁴

On a sexier note, see the British ad for Trium cellphones that appeared in *Mobile Choice* (see Figure 3). The glossy full-page ad, which couldn't be missed on the outside back cover of the magazine, is titillating and obviously adult-oriented in its use of a daring (some might say taboo) sexual metaphor. Two shapely models of the company's cellphones are tucked away in the lower corner of the page with these sentences: "Astral and Galaxy. A revelation. The first mobile phones to offer what you really want. Not just technology, but the pleasure technology can bring. The pleasure of conversation." I suppose the underlying messages may be that this brand of cellphone offers such clear transmission that the user can speak softly – as though whispering into an ear – and still be heard, that it is on the cutting edge of cellphone technology, and that it is exciting to use – very exciting.

In the three years since PCS service was launched, the carriers have been busy using the emotional lure of advertising to build an identity for the cellphone and to tell consumers what kind of social identities we can acquire by using one; what kind of people we can become, from professionally competitive to adventurous to sexually daring. In 1998, the four Canadian carriers spent a combined \$127 million on advertising in a continued effort to expand their markets from mainly business people to a wider variety of consumers.⁸⁵ As Paul du Gay writes, advertising can be very appealing.

Advertising, of course, is an economic as well as a representational practice. Its aim is to make people buy the product, to increase sales and thus maximize profits. But it is also a cultural practice because, in order to sell, it must first appeal; and in order to appeal, it must engage with the meanings which the product has accumulated and it must try to construct an *identification* between us – the consumers – and those meanings.⁸⁶

In order to make a further connection between consumers and the cellphone, the carriers have also created ads that reflect some of the urban nomadic conditions that we have constructed and continue to nurture as characteristics of our late-modern society. Typically, the ads appeal to certain behaviours, attitudes and values that can be read using the notion of “private mobilisation.” The ads, therefore, have emphasized speed and mobility, escape, status, choice and individualism. Consider this random set of ads, mostly from Canadian publications.

The Bell Mobility ad for its “Simply Connected” service promises “Any call, anytime, anywhere” to help mobile business users “stay in touch on the road.” A business-hours sign is shown posted in the window of a car to emphasize that this particular cellular service is for professional road warriors with virtual offices. Another Bell Mobility service called SimplyOne also

emphasizes mobility in its use of the phrase “Home is where your phone is.” In other words, suggests the ad, cellphone users don’t need to stay in the physical structure they call home to be reachable by phone. They can be out and about. “Home is where your phone is,” echoes the cliché “home is where your heart is” – an association that was likely made intentionally to create an emotional connection between potential customers and Bell Mobility’s cellphone.

In an ad for Iridium satellite phones, the lure of mobility and escape is front and centre. The one-page spread of the ad is equally divided between one half showing a desert bathed in a golden light that is reminiscent of heat and one half with phones hovering against a black emptiness. Lone footprints in the desert sand and the almost limitless blackness of the other panel give added impact to the sparse text: “It will impress people. Assuming there’s anyone around to impress.”

“Now lawyers aren’t the only ones playing games on the phone. 4 video games,” states one Nokia ad (see Figure 4). The size of the cellphone in the ad is meant to promote its wide screen and its text capability, and also the video games that are loaded on the phone. The direct reference to lawyers is meant to transfer a kind of honorary judicial status to potential consumers. It’s a way of claiming that cellphone users can be as important as a lawyer if they choose Nokia, but they can also still have fun by playing video games on it. The ad is selling a kind of status by association through the phone.

“Give it your style. Resist the usual,” invites the ad copy for a Mitsubishi cellphone (see Figure 5). The ad, which appeared in the British edition of *Men’s Health* magazine, uses fashion advertising aesthetics to emphasize choice and individualism. A young woman with a tattoo on her arm and unruly hair

challenges the reader with a direct gaze that is at once rebellious and vixen-like. In the deep red background, the ad copy says, "You have always had a real knack for style, giving everything around you the distinctive mark of your own personal touch and personality; now you have a chance to do the same with your new... mobile phone... You can even create your own personalized melody on your PC and then transfer it to the phone... the wide range of compatible accessories all contribute to making the Thirty MT-35 mobile phone truly exceptional, just like you."

Cantel AT & T manages to capture many of the characteristics of our late modern society in just one ad. "Isn't it nice to know that wherever you are you can call your friends, and rub it in," says the headline. A lone woman is shown holding her cellphone while guiding a sailboat on open water. She's on the move, she's escaped the city and land, the sailboat implies wealth, she's the only one in the picture, and she's in control of the boat: mobility, escape, status, choice and individualism.

Promotion of the cellphone hasn't been restricted only to standard advertising. The extension of the cellphone's semantic network has been augmented through appearances in film, product placement in television shows, and anecdotes in cellulore. Through these alluring appearances, the cellphone has further penetrated the realm of popular culture where film, TV, newspapers and magazines already reside. To borrow a phrase which theorist Dick Hebdige used in his essay, "Object as Image: the Italian Scooter Cycle," it could be said that a babble proliferates around the cellphone – both figuratively and literally. Hebdige writes that "far from being silent, the number of voices which speak through and for 'dumb things' are legion."⁸⁷ Many objects are available to be

consumed, but only some penetrate deep into the realm of the popular to become desirable and trendy “must-have” items. The cellphone is one of these objects. This has happened not only through consumer practices that pull the object into everyday lives and make its use meaningful; it has also penetrated the realm of the popular through the push of far-reaching advertising. Here’s one commentator’s opinion on its popularity.

Like the personal computer, it is more than just a device – it’s a pop-culture icon, and thus comes complete with the obligatory existential hype about liberation and freedom. Witness the florid ads depicting people’s lives transformed by portable communications; observe the cellphone as *deus ex machina* in movies and on TV...⁸⁸

Cellphones were featured prominently in two of 1999’s biggest action thriller movies: *Enemy of the State* and *The Matrix*. While *Enemy of the State* played in cinemas, ads for the Philips cellphone used in the film also helped to advertise the film in a kind of cross-promotional effort (see Figure 6). “The only thing as exciting as *Enemy of the State* is the communications technology it features,” reads the copy from an ad in *Wired* magazine. “What do you do when you need to be in touch, no matter what? You pick up a Philips Isis™ cell phone... You turn to communications technology innovative enough to be featured in the new political action drama, *Enemy of the State*...” In the film, actor Wil Smith plays an honest lawyer uprooted from his comfortable life, separated from his family, and on the run after he is wrongly accused of being involved in political conspiracy. In the film, a cellphone and another lone urban nomad, played by Gene Hackman, are his saviours. Not surprisingly, in the end, the “good guys” win through use of their sheer wit and mobile technology. The film grossed millions of dollars in revenue to become a blockbuster. That translates into a lot of buttocks tucked firmly into cinema seats and a lot of

attentive eyes focussed on Philips cellphones being used as the suspenseful plot unfolded. It will also capture the attention of home viewers when the film is released on video. What better way to "lifestyle" the cellphone than to show it being used in a gamut of everyday and extraordinary situations, even if it is being used by fictional characters. Such advertising seems like a logical extension of the deus ex machina fantasies that already surround the cellphone in other ads.

Nokia cellphones were featured in *The Matrix*. "According to Alison Brolls, head of marketing for Nokia in the UK and Ireland: Nokia complements the futuristic ethos of *The Matrix*. As the technological capabilities of Nokia mobile phones become further advanced, we can expect to have even more prominent movie roles..."⁸⁹ Phone maker Motorola has already gone a step further by having its cellphones *and* its new factory featured in the 1999 James Bond film, *The World is Not Enough*. In the film, the U.K. factory is the headquarters of Bond's newest adversary.

The explicit admission of an object's product placement role in film or on TV seems to have become more acceptable recently. In the past, product placements seemed to be done more quietly and some still are. Julie Snyder, former host of a Quebec TV talk show called *Le Poing J.*, sometimes used a Fido cellphone while on air. Microcell paid a fee for the use of their product on the show.⁹⁰ It is in fact, a commercial within a show, but some people may not have realized that it was a form of paid advertising. Infomercials on the other hand are obvious paid advertisements, and for the first time, some cellular carriers are using this direct-sales tactic to reach specific consumer segments. A half-hour infomercial allows ample time for the advertiser to give detailed information

about its product within a thematic context that it creates and controls. Their cellphone is presented against the backdrop of particular lifestyle themes in the infomercial, which runs uninterrupted by competing programming or advertising.

While product placement of cellphones in film, TV, print, radio and television advertising are now obvious means of promotion that have helped to propel the object deep into the realm of popular culture, a less obvious but equally prevalent and effective means of promotion has occurred through cellulore. When BC Tel (Bell Mobility) provided free cellphones to some Vancouver women at risk of physical violence from stalkers and abusers, the pilot project was reported as a goodwill gesture in the media.⁹¹ The cellphones were programmed to dial an emergency line only and were not programmed for general use. The gesture was a positive association for Bell Mobility because it portrayed the cellphone in its familiar role of *deus ex machina* – saviour – and the carrier as concerned corporate citizen. Publicity for its products, its corporate name in the news, and a good association – all to Bell Mobility for free.

Sometimes even when a story emerges from cellulore as a negative story, it still provides publicity and information about the cellphone, and consequently helps to expand its associated meanings and values. A Bell Mobility affiliate in Alberta (Telus Mobility) made the news when it pulled its Christmas 1998 ad showing baby Jesus and a cellphone, after receiving complaints that the ad was “unwise and in poor taste. The ad, showing the third wise man offering the infant a cell phone and service, unleashed a flurry of complaints....”⁹² This story was reported on the third page of the *Ottawa Citizen*, a fairly good placement for what I think is an inconsequential news item. The humorous and conflictual

elements in the story made it a good holiday news item and a likely memorable one. Whether viewers thought the ad was humorous or offensive, or whether they saw the ad at all, doesn't detract attention from the story that was reported. In fact, it almost begs to be reported and to be re-told because it's a good yarn. As the yarn is spun out, the storytellers might not even remember in which province it happened or the name of the company involved, but I reckon that the cellphone will remain the central character.

Such was the situation in the case of the dog that swallowed a cellphone.⁹³ It was meant to be a Christmas gift, but on Christmas morning, the cellphone had disappeared from under the tree where it had been placed, wrapped and ready. Its disappearance remained a mystery until someone dialed the cellphone's number. It could be heard ringing inside the family dog's tummy. This story was likely picked up as a news item and reported in print, on radio and on television because it was amusing and because the cellphone that was swallowed by the dog was a Fido phone. Get it? Dogs appear in Fido's commercials as its icon of loyalty and reliability. Through this story, information about the small size of Microcell's cellphone (an attractive feature) was communicated because the phone was small enough to be swallowed by a dog. While this story was still hot, I also heard people re-telling it to others as though it was a new urban legend.

Through cellulore, the cellphone has become a familiar part of our social discourse. Cellulore also occasionally includes publicity and news about research from cellular carriers and affiliated organizations like the Canadian Wireless Telecommunications Association (CWTA), which is comprised of Canada's wireless phone carriers, except for Bell Mobility. CWTA has conducted research

into cellphone use and attitudes toward them, health hazards associated with cellphones and technological developments in wireless communications. CWTA representatives are quite often quoted in news stories on the cellphone.

As Paul du Gay notes in *Doing Cultural Studies*, market research and other feedback monitoring systems are a means of bringing production and consumption together. In a survey like CWTA's "Usage and Attitudes Toward Wireless Communications in Canada," various information was collected on who is using a cellphone. This information is useful for the mobile phone industry for gauging the market penetration of existing product and for the development and promotion of new cellphones. However, du Gay notes, "statistical tabulations can only tell us about who has bought what, not what meanings those products have for those buying them, nor how those products are used in the practices of everyday life."⁹⁴ While I agree with du Gay, some of the information gathered in telecommunications reports and surveys is still quite interesting.

The May 1999 CWTA survey of 1746 people, 606 of whom were wireless phone users (not including users of cordless phones), contains some unsurprising findings about who is buying and using cellphones. Here's a summary of some conclusions that are particularly relevant to this thesis.

- Younger respondents (35% of those aged 18 to 34 years) are significantly more likely to acquire a wireless phone than those between 35 and 54 (23%) and respondents that are in the 55+ age category (11%).
- People in the \$60K+ income bracket are more than three times as likely to own or have access to a wireless phone than individuals earning less than \$30K annually. Individuals earning between \$30K and \$59K per year are nearly twice as likely to have wireless phone access than people earning less than \$30K per year.
- The higher the education and annual income level of respondents, the greater the likelihood of having access to a wireless telephone.

- Over three-quarters (76%) of respondents personally own their wireless phone, another 11% indicated the phone is provided by an employer and 8% access a phone through their home business or small business. 16% indicated they have access to a wireless phone through someone else in the household.
- Men and women are equally likely to have access to wireless telephones, though the rate for men has been slightly higher for the past three years (1997: 32% male, 25% female; 1998: 38% male, 36% female; 1999: 42% male, 40% female).
- In an average week, men were more likely to report 20 calls or more than women (33% vs. 20%).
- Respondents who indicated currently having access to a wireless phone (n=606) were asked how often they make calls from the home using a wireless phone instead of their home telephone. About 6% indicated they make such calls "very often," 39% indicated "sometimes" and 55% said they never do.

I say the conclusions of this industry survey are unsurprising because the cellphone has been introduced and promoted in a modern context that has both supported and also created these findings. Beginning in the mid-80s and continuing into the mid-90s, cellular carriers aimed to reach a mobile, high-income, well-educated consumer, typically aged 18 to 34 who works in business. Their typified cellphone user was a young businessman. Because consumers are now appropriating the cellphone in ways that the carriers did not precisely imagine, they are modifying their promotional strategies to reach new users. Examples of this modification include attempts to attract teens and lower income earners as cellphone users. After a few years of handsome profits, some carriers are also now shifting focus from business users to the residential users in attempts to get people to generally abandon landline phones at home in favour of a cellphone. Besides access to local phone networks, the only other real barrier to wireless phone providers is "number portability." Currently, Bell is the only company through which residential landline users can switch to wireless service and keep their current home phone number. The cost of using a cellphone is not

much of a barrier anymore. Cellular service is now competitive with the cost of common residential service.

“Remember when cell phones first appeared on the Canadian scene? They were big and clumsy looking, and the sight of someone using one of the street or in a restaurant would often prompt derogatory remarks having something to do with yuppies.”⁹⁵ Those days are gone. Not only have consumers made the cellphone a meaningful object through different uses, cellular carriers are also creating different meanings for the cellphone in order to reach discrete new market segments in the coming years. The cellphone is no longer just a yuppie toy. Here are two 1999 American and Canadian definitions of some discrete market segments.

According to Cahners In-Stat Group, a Massachusetts market research firm, the wireless market in America can be broken down into five demographic groups. At the top of the scale are the Young, Suburban Professionals (average household income, \$77,000; average monthly wireless bill, \$78), the Affluent Empty-Nesters (\$73,000; \$57), and the Mature, Moneyed Middle-Agers (\$72,000; \$63), Married, With Children (\$42,000; \$55) and Living Off Social Security (\$27,000; \$37).⁹⁶

[Bell Mobility] has reorganized itself around four key customer groups which characterize the market as a whole... the “general mobility” group, budget-conscious occasional users; the “prestige” segment, who tend to be young, mobile professionals often using their wireless phone as a landline substitute but who don’t want to give up any of the benefits of having a landline home phone; the “elite” segment, the early adopters of technology who are first in line for new data applications; and large corporate customers.⁹⁷

These definitions of new market segments are as contrived as the changing technology that helps to maintain the cellphone’s novelty. These market segmentations are based heavily on class and income because the focus of the carriers is profit. However, consumers of various professions, classes, income levels, ages, races, ethnicities and nationalities are appropriating the

cellphone. Some people in the telecommunications industry see only market forces at work, not consumers actively appropriating the cellphone. Here's one such opinion from a business columnist: "...the explosive growth in wireless communications is a result of the break-up of the North American telephone monopolies, which has spurred competition and innovation. In another sense, changes were inevitable due to advances in technology."⁹⁸ I can't disagree totally with this opinion because one reason the use of cellphones has spread quickly is because the infrastructure supporting landline phones already existed: the 'network externalities' were in place.⁹⁹ After all, a cellphone would be useless if the user could only reach other cellphone users and not also the millions of already existing landline phone users. Cellular carriers also didn't have to create the content for the cellphone because users do that with their conversations and the data they transmit. What I would like to challenge is the suggestion that there is a kind of technological determinism driving the success and popularity of the cellphone. Such a suggestion ignores the role cellular carriers and consumers play in assigning different and occasionally contesting value and meaning to the cellphone, and it glosses over deliberate corporate plans to make the cellphone a ubiquitous instrument in our lives.

As an example of these plans, allow me to focus for a moment more on the technology itself, rather than on the lifestyling of the cellphone. When the four PCS carriers launched their services in 1996, three types of digital protocols or standards were chosen for use in Canada (GSM, TDMA and CDMA) from about seven existing standards. The PCS handsets the carriers chose to use were made by five different suppliers, and they were not made backward compatible to receive analog signals. The services of the individual carriers and their phones

were also incompatible with the services and phones of rival carriers. Until roaming agreements were worked out between the carriers to allow subscribers to use their cellphone while in the service area of another carrier, subscribers experienced dropped calls as a result of incompatibility issues. In Europe, where a hodge-podge of different protocols had existed, one protocol (GSM) was chosen as the standard in 1988. Although talk of standardization is underway in Canada, no decision has yet been made. When a decision is taken, there will be losers as some carriers will have to change protocol to meet the standard and continue operating or risk losing subscribers. Subscribers may also be required to change their handset.

In late 1999, some equipment makers, like Ericsson, Nokia and Motorola, began supporting the Wireless Application Protocol (WAP) in a race to provide wireless Internet services via mobile phones. Users would be able to do banking transactions, stock trading and Internet surfing. WAP is getting a lot of attention in telecommunications and business publications. "The reason for this excitement is simple: wireless is hot," writes one commentator. "The Internet is sexy. Bring them together and you expand the mobility and reach of the dot-com economy, creating an entirely new market for equipment software and services."¹⁰⁰ In February 2000, the Mobile Wireless Internet Forum was created in Cannes, France. It consists of wireless industry companies like Nortel, who will work to develop WAP standards for use with mobile phones and other portable devices like the PalmPilot. However, for years, the International Telecommunications Union, a United Nations standards-setting group, has been unsuccessfully encouraging wireless operators to agree on a common global standard. Considering the current rate of multi-billion dollar mergers in the global

telecommunications industry, a common standard may not be an issue in a few years because only a few companies may be operating globally.

The analog (cellular) and digital (PCS) networks now co-exist in Canada. Some subscribers have acquired dual-mode, dual-band phones that can support two different protocols on both analog and digital networks. Others have simply chosen to use either just analog or only digital. This decision may be partly based on the fact that dual-mode, dual-band phones are more expensive than single-band, single-mode cellphones. Subscribers will again have to acquire new phones or tri-mode cellphones when third-generation wireless is introduced in the next few years. Maybe, by the time third-generation wireless is introduced, the carriers will simply drop analog service, which is now the cheapest and oldest type of cellular service people can subscribe to. Oddly enough, though PCS networks are cheaper to operate than analog networks, PCS service costs more than analog. This price difference likely exists because digital is newer and it has been established in both producers' and consumers' minds that newer stuff costs more. Some people within the telecommunications industry don't see this constant need to upgrade to expensive equipment as a problem or even a kind of forced obsolescence. Here's an example of one such opinion.

End-users are getting used to the rate of growth in telecommunications capabilities such as processing power/cost trade-offs. Technological breakthroughs are becoming common-place leading to an outlook that the more users have, the more they want which in turn leads to exponential expectations.¹⁰¹

The notion of "exponential expectations" is a ruse. It's simply the rolling out of a process that guarantees greatest profit to the service providers. The process is about to happen again with the introduction of satellite cellular service in developing countries. The Commercial Space Transportation Advisory

Committee forecasts that 33 telecommunications satellites will be launched every year over the next decade to provide cellular service in first-world and developing countries. The cost of launching these satellites is pegged at \$250 million.¹⁰² In an article that appeared in *Report on Business Magazine* about satellite communications, the writer reports that service providers will recoup investment costs by “targeting high-end business users first.”¹⁰³ She adds that “earnings from a successful launch remain fat. Backers of a conventional satellite can often cover their costs within three to five years, and then earn almost pure profit after seven years.”¹⁰⁴

Fact is, the carriers and equipment makers need to keep making money from existing cellular and PCS networks in order to prepare to provide third-generation wireless or satellite services and handsets or drop out of the wireless business. I suggest they don't want to risk dropping out because the market is growing and because they expect to make profit on their investment. The companies have already spent billions of dollars building their network infrastructure and awareness for their individual brands. Microcell alone raised \$814 million to finance the building of its network.¹⁰⁵ During the first year when PCS service was available, Bell spent \$99 million on advertising, Rogers spent \$35.5 million and Microcell and Clearnet spent over \$2 million each.¹⁰⁶ The carriers are in the business because based on their plans, they have projected handsome sales and good consumer response to PCS. In a 1997 report written by a telecommunications consultant for Industry Canada, the following sequence was forecasted.

The companies expect PCS service will be about 30% cheaper than cellular services. Handsets are expected to cost \$500 to \$600 when they hit the market. The network will cost \$3 billion to build over the next five years. Estimates of the monthly cost of PCS range from \$25 to \$40. After

the first year of service, the phone prices are expected to drop about \$100 and keep falling.¹⁰⁷

Ten years ago, it cost \$4000 to buy a cellphone. Now you can get a cellphone for free with special package offers from some carriers. "Cellular service companies say they're nearing the limit of well-heeled business they can count on to buy phones and calling plans. The next frontier is a lower-priced consumer market."¹⁰⁸ This information appeared in a 1997 *Toronto Star* article about Canadian wireless carriers aggressively seeking new customers in Canada and abroad. The plan to move down the consumer curve appears to be working, thanks to a clever and dizzying array of content, design, and service gimmicks as well as even more advertising.

"The fact that producers do not completely dominate or 'control' consumers but must ceaselessly attempt to exercise power over them, is attested to by the use they make of design, marketing and advertising in trying to create meanings for products with which consumers will identify."¹⁰⁹ For the cellphone, this has meant a constant parade of new gimmicks being introduced at lightening speed.

Recent content gimmicks include the option for cellphone users to do simple banking transactions, look up restaurant information, and check stock quotes and traffic information on their handsets. Design gimmicks include creating phones with video games, customizable ring tones, interchangeable coloured face plates, and accessories like leather carrying cases, tote bags and EMF shields. Service gimmicks include the no-contract option, flat-rate pricing and per-second billing for airtime, simplified roaming schemes, and the stellar new gimmick: prepaid calling plans.

Thanks, in part, to new prepaid calling plans that remove a major barrier to entry for consumers interested in wireless communications but worried about controlling costs, the number of subscribers to Digital PCS services soared 143% in the 12 months ending March 31, 1999 to 1.65 million... The total wireless telephony business – which includes analog calling – grew to \$3.9 billion in 1998, up 11% over the previous year. Approximately 18% of Canadians now own some form of wireless device – about half of them digital – a penetration rate that is fast approaching the magical 20% point at which new high-tech products tend to become mainstream and *everyone* has to have one. Industry estimates – usually based on comparisons to Europe, where penetration is as high as 80% in some countries – show that penetration levels in Canada could reach 40% to 50% by the middle of the next decade.¹¹⁰

While it took the landline telephone decades to reach high penetration rates in North American households, the cellphone is achieving near similar success in just over a decade because an older phone network and some of the modern conditions for its success preceded it. Now cellphone makers and carriers are putting the object through a course of redevelopment and new marketing based on how they perceive consumers are using it. Notoriously expensive but convenient prepaid calling plans began to be introduced in 1998 to specifically reach adolescent cellphone users. Though the cellphone was not initially produced and promoted with teens as a target market, the focus has shifted to them because they have appropriated it as part of their city kids' arsenal. Like the Walkman and beeper before it, the cellphone has become associated with youthfulness and fun. A quick look around places that teens frequent is evidence enough of the cellphone's popularity among them. In shopping malls, on buses and in schoolyards, teens are chatting away on cellphones. In cellulore, there are stories about the phones being banned in school classrooms and libraries as educators cope with the fact that more and more students are users.

Besides the possibility that the cellphone has become attractive to teens partly because they consume a lot of popular culture where the cellphone has an established pop-icon role, another explanation that is offered frequently in cellulore points to the convenience of having a cellphone to keep in touch with friends and family. "It's tough to say whether cell phones are gifts for teenagers or their parents. Kids get their own phone number, a nifty gadget and a chance to gab their heads off.... Their parents get the security of knowing that if their teenagers are in trouble, help is a speed dial away," writes one commentator.¹¹¹ I suggest another reason the cellphone is so attractive to teens may be a result of the association that carriers have made with independence and freedom in their advertising. Teens may be appropriating this sentiment and the cellphone as part of their rite of passage or maturation toward independence.

The cost of wireless service and the handset have been out of reach for some people because in North America the cellphone owner pays for all calls whether they are coming in or going out. In most of Europe, all calls are paid for by the calling party (on landline phones as well). A few years ago, there was no way teenagers, their parents, or low-income earners could afford to buy a handset for thousands of dollars and then sign a contract for "an eternity of humongous monthly bills and per-minute charges high enough to silence the most loquacious talker."¹¹² Prepaid plans have solved these concerns and put even more money into the carriers' coffers. In addition, these plans have helped to increase the number of cellphones being used in North America by bringing in literally tens of thousands of new subscribers since 1998.

The plans are popular with consumers because there are no long-term contracts or credit checks – selling points popular with students and people with lower incomes or no access to a credit card. Ian Angus, president of Angus Telemanagement Group in Ajax, Ont., said prepaid

plans have won over cellular carriers because they generate revenue up front, compared with monthly plans in which customers use the service and are billed afterward. Another reason prepaid plans are being aggressively marketed is that charges for each minute of use are higher than with monthly plans. Rogers, for example, charges \$25 for a 60-minute prepaid card – or 42 cents a minute – compared with its basic monthly package of \$25 for 100 minutes, or 25 cents a minute.... Mr. Angus said prepaid plans are being offered over older analog networks, which allows cellular carriers to extend the life of those networks at a time when they are quickly becoming outdated by newer digital systems that offer better service and more capacity.¹¹³

The introduction of prepaid plans has resulted in a new slew of ads aimed especially at reaching teens and the twenty-something crowd. For example, Bell Mobility is promoting its prepaid package, named Solo, in ads airing on MuchMusic which generally attracts young viewers. Cantel AT&T's has been running ads for its prepaid plan, Pay As You Go, in local weekly arts newspapers like Montreal's *Hour* and *Mirror* and Toronto's *Eye* and *Now*. One of its ads that was run in these weekly newspapers and in *Shift*, a Canadian pop-tech magazine much like *Wired*, uses juvenile humour to catch readers' attention (see Figure 7). A red cartoon bubble pointing to a baboon's head has the words, "Rave? What's a Rave?" The copy below the baboon asks, "A little out of touch? Now, staying in touch is easier than ever with Pay As You Go cellular because all incoming calls from your Pay As You Go friends are free." The references to raves parties clearly marks the ad as one targetted to young people rather than to business users. The mouse type at the very bottom of the page clarifies the "free" offer. It applies "only to calls received on a Pay As You Go phone from another Pay As You Go phone." The fine print further stipulates that "Unused Pay As You Go card minutes expire 90 days from activation."

Ads for prepaid plans typically emphasize convenience over price, but as one telecommunications analyst noted in an interview in the *Toronto Star*, "it

isn't even more convenient because you have to buy a new card all the time."¹¹⁴ And, like Cantel AT&T's plan, sometimes unused minutes are flushed rather than being accumulated for use the next month, though some other carriers, like Microcell, offer the option of carrying over some unused minutes.

Some cellphone makers and cellular carriers have gone a step further in order to reach young clients. In Britain, one of the Spice Girls, Posh Spice, has agreed to be on Motorola's "Ambassador" list. The agreement means that the singer receives free phones in exchange for appearing in public using them.¹¹⁵ In Canada, Cantel AT&T announced in September 1998 that they were planning to sell prepaid calling cards as collector items for kids. The cards would feature photos reflecting teen interests like snowboarding.¹¹⁶ In Edmonton, a cellular carrier received permission from about 50 schools to sign up students as subscribers in exchange for a small fee being paid to the school. New subscribers would get a free cellular phone and pay a basic fee of \$29.95 a month if they remain a subscriber for at least two years.¹¹⁷ It sounds to me like those schools sold out their students by giving the carrier direct access to them.

Until recently, "the battlegrounds for wireless companies were retail stores and the Internet. These days, you can buy a wireless phone everywhere from Canadian Tire and Shoppers Drug Mart to Loblaws and Blockbuster Video."¹¹⁸ If a cellphone can even be bought at school, it has certainly moved down market. If the carriers' use of infomercials is not evidence enough of this move, consider that in summer 1999, Cantel AT&T even teamed up with Labatt Blue to run a contest where beer drinkers could win a Nokia digital cellphone and two months of free local wireless service. It was an odd cross-promotion. The first time I saw the six pack of beer with images of cellphones on them I was

baffled until I realized that the cellphone was a prize in the contest. Now with the added knowledge that cellular carriers and phone makers are deliberately wooing “credit challenged” consumers, the connection between cellphones and beer is crystal clear. I’m not trying to make disparaging comments about beer drinkers or about people who don’t have a credit rating, especially because the two groups are not necessarily linked. I want to point out that the steps taken by the cellular carriers and phone makers to reach less affluent market segments are designed and deliberate. Advertising for beer has not traditionally been linked with telephones. If there’s a prize to be won from a box of beer, it has usually been tickets to rock concerts or hockey games – activities beer producers have traditionally associated themselves with in order to reach their target market of mostly young male drinkers.

Consumers have welcomed traditional and non-traditional advances and have also appropriated the cellphone in ways that the carriers and equipment makers did not image, including making the cellphone a cool fashion accessory and trendy wearable media rather than merely just a work tool. Through this appropriation, the cellphone has attained a status that Paul du Gay calls a new “register of meaning.”

Though the cellphone is but one of many objects available for consumption in our late-modern society, it has achieved a new register of meaning because it has become associated with a particular fashion status that exists alongside its other identities, like those associated with corporate professionalism and adolescent cool. Remember that part of what defines the modern notion of “private mobilization” is our focus on status or symbolic mobility and the desire to display one’s own status as well as to read the status of

others through the objects that are consumed. This focus on status has helped to make the cellphone meaningful in symbolic ways rather than just as a material communication tool. In a case like this, consumption functions like a language says Paul du Gay, in reference to Jean Baudrillard's theories about consumption.

Baudrillard argued that material culture does not simply, nor indeed primarily, have 'use' or 'exchange' value, but that it, more importantly, has 'identity' value. By this he means that the consumption of material culture is important not so much for the intrinsic satisfaction it might generate but for the way it acts as a marker of social and cultural difference and therefore as a communicator.¹¹⁹

The promotion and consumption of the Nokia 8800 series cellphone is the best example I've found of how the cellphone has reached a new register of meaning among fashion mavens and mavericks. Though it is an identity that carriers and phone makers did not conceptualize as part of their initial promotional plans for the 1980s cellphone, they are now participating wholeheartedly in the development of this new status.

In 1998, Nokia brought the cellphone to new markets by introducing the stylish chrome-plated 8810 handset in Europe (see Figure 8). The phone was promoted through the fashion industry at shows and in the pages of fashion magazines. It was offered for free to selected actors, singers and other celebrities, to fashion-industry journalists in Europe and North America and used in the sci-fi blockbuster movie *The Matrix* – all to make it all the more desirable to consumers. A British designer was even commissioned to design a bag for the phone. A series of print ads in *Mobile Choice* magazine showed the phone peeking out of a golden gift box as though it's expensive chocolate, nestled in a sleek make-up kit as though it's a necessary accessory, and snug in a matching chrome carrying case. All the ads are as exquisitely designed as the phone itself.

Apparently, the promotional emphasis on the design of the Nokia 8810 for was a success. "Nokia couldn't produce them fast enough, despite the hefty £350 price tag."¹²⁰ For a while when supplies were low, the phone was only available on the black market in Europe and Asia.¹²¹ The success was due to a deliberate design plan.

"We wanted to create a phone that would [have] people instinctively say, I want this," said Frank Nuovo, Nokia's chief designer of mobile phones. "Like a fine watch or a fountain pen, the mobile phone is now more than a product you need – it is a beautiful object that your desire," he said.¹²²

The hype that was created around the Nokia 8810 was new for the cellphone, but it was not altogether a new idea. Design is often used to encode products with particular lifestyle meanings. It is used in just about every aspect of production, from architecture to auto making to the clothing industry. It is difficult to think of an area of our lives that design does not touch. How design was used to expand markets for the Walkman is explained succinctly by Paul du Gay. His explanation is clearly applicable to what's happening with the cellphone.

Gradually, as Walkman sales increased worldwide it was not simply *representations* of the Walkman that began to change but the very '*look*' and '*feel*' of the product itself. In other words, Sony shifted from registering the increasing diversity of consumer use through changes in its advertising and marketing materials alone to inscribing those changes onto the 'body' of the Walkman itself, through changes in its *design*. Instead of a single Walkman model sold worldwide, Sony began to customize the product, targeting different sorts of Walkman at different consumer markets. Or to put it another way, Sony began to *lifestyle* the Walkman... the term refers to the combination of responsive design and visual communication with techniques of market segmentation. In contrast with selling the same basic model to a mass market, *lifestyling* involves tailoring or customizing a product to the lifestyle of a particular niche or target market segment.¹²³

The hype that was created in Europe over the Nokia 8810 crossed the ocean with the phone when it was launched in New York in July 1999 as the Nokia 8800. By the time of its launch, there was already a months-long waiting

list of subscribers hankering after it. *The Globe and Mail* arts reporter Simon Houpt wrote a fascinating and insightful story about the New York launch, saying the lavish event was fuelled by “a distinctly nineties kind of desire: raw consumer lust.”¹²⁴ See appendix A for a lengthy excerpt from his article.

The Nokia 8800 was launched in Canada in August 1999 only to subscribers using TDMA protocol on the Cantel AT&T network, as a result of an exclusive agreement signed between the carrier and Nokia. Only six months later would Bell Mobility and Clearnet customers have access to the phone when it would be available for use with the CDMA protocol. Microcell subscribers, who use the GSM standard, will wait even months longer for a North American GSM version to be produced.

Nokia’s promotion for the 8800 series of cellphones was successful because it tapped into a vast and intricate fashion industry that creates and reflects popular culture. It was also successful because design was made to play a key role from production to launch, which resulted in the object attaining a new register of meaning and new consumer desirability. As du Gay points out, design operates “on the very cusp of production and consumption, attempting to stitch the two spheres together.”¹²⁵

On the consumption side, it had become apparent to phone makers that consumers favoured small good-looking phones rather than the behemoth black or grey bricks that characterized early cellphones. Consumers were not only using the cellphone to make a fashion statement, they were using it to create stylish identities and new status for themselves. According to one commentator, “Italians who understand style better than most, know this. That’s why a well-dressed Florentine businessman... may carry two. “They like the look”....¹²⁶

In a recent article in the *Toronto Star*, another commentator wrote that “carrying cellphones and pagers is a way of showing you belong to the new upper class: the busy people.”¹²⁷ Her commentary echoes how du Gay describes consumers as “cultural experts whose intimate knowledge of consumer culture allows them a greater freedom to use commodities to become what they wish to be.”¹²⁸ While du Gay acknowledges that consumer expertise sometimes results in new or transgressive practices that are difficult to classify, he cautions that all consumption should not be perceived as subversive acts. I’m grateful for this caution because I find it difficult to pinpoint the place where production and consumption can be divided. These processes seem so intricately intertwined. Cellphones have become smaller because it is now possible to manufacture miniature component parts. Handsets have also gotten smaller because cellphone makers said consumers obviously favoured smaller phones.

Doug Brownridge, director of marketing for Motorola cellular in Canada says the driving force to get smaller cell phones was consumer research that said people wanted smaller, lighter models they could carry with them. “The dream was, wouldn’t it be great if you could put it on and wear it?”¹²⁹

Now in advertising, small cellphones are promoted as being stylish. One Nokia ad states “Even men boast how small it is. Only 5 inches” (see Figure 9). “I found it under my credit card,” says the ad copy for a Motorola cellphone (see Figure 10). Another Motorola ads places a cellphone on a size and time grid after Tic Tac™ mints and before a futuristic “cerebral telecommunications chip.” For years, Motorola has been marketing its StarTak cellphone as a wearable phone. In cellulore, writers have noticed that size matters, and they have commented on it in disparaging tones. “The ever-expanding world o’telephones is talking compact. Palming a pocket-sized cell phone... apparently tops the list of status

trends that define the decade," writes one commentator.¹³⁰ Here's an opinion from *Montreal Gazette* columnist Mike Boone.

Back in the days of dial phones that came in your choice of colours (you could have either black or black)... the only person using a wireless phone was Dick Tracy, the comic-strip detective. A few years later... we laughed at secret agent Maxwell Smart talking into his shoe-phone.... We've come a long way in a short time. Cellular phones, introduced in Canada 12 years ago, were ponderous, expensive and unreliable.... "I was one of the early cell-phone users," said CHOM program director Ian MacLean, "and you became herniated just by lifting the thing. Now, the greater danger is losing it among the loose change in your pocket." How far will miniaturization go? Eventually, phones will be subcutaneous implants, Maclean said. I think we was joking....¹³¹

But where's the beginning and end of this cycle of miniaturization? Wristwatch cellphones now exist.¹³² Is this a consumer driven or production driven cycle? It really is an irrelevant question because it mostly doesn't matter where the cycle began or if it began in only one of these spheres; they are closely linked. The cycle of miniaturization has fed the trend toward wearable media, a practice that was provoked by our use of the Walkman. It is a practice that fits quite comfortably within the context of our late-modern society, characterised as it is by mobility, status and individualism. Using a small cellphone is the newest status symbol. According to a commentator writing in *The New York Times*, "For an ostentatious display of jaded discontent, firing up a teeny tiny phone at a dinner table beats lighting up a cigarette. Can it be long before manufacturers offer a wearable patch for wireless abusers?"¹³³

Chapter 3: Regulating Public Privacy and the Cellphone

The 20th century is unarguably the *grande époque* of rudeness. We have merely to say Roseanne Barr, sitcom, cellphone and Lewinsky, to realize that our time outperforms all other times, and that therefore a history of rudeness would be slender to the point of invisibility as it ran through every other century, and fat to grotesqueness as it came to rest unapologetically on our own.¹³⁴

Using a cellphone in public is now considered by some people to be a blight. Like in the quote above, the activity is being lumped in with other icons of rudeness or events that disturb the established social order. As Paul du Gay writes, when something “achieves the status of being ‘matter out of place,’ when people represent it as a threat to order and to established patterns of conduct, the common reaction is an attempt to exclude it, to reject it.”¹³⁵ Using cellulose as a source, it becomes obvious that cellphone use has achieved this status. Some efforts are being made to limit the use of cellphones even while parallel efforts are underway to increase such use or to accommodate it. The various and divergent meanings associated with the cellphone drive these efforts, clash constantly and result in discursive tension.

To increase cellphone use, cellular carriers and equipment vendors are steadily making it easier to acquire a cellphone. In just three years, the process of purchasing a cellphone has moved from lengthy credit checks and expensive phones to total costs that have dropped by over 180% according to one estimate.¹³⁶ And if prepaid calling plans seemed a radical down-market move to attract new subscribers, consider AT & T’s pilot project in Florida that would allow people to purchase a cellphone from a vending machine, like how snacks are browsed and bought from such machines, except in this case, a credit or debit card would be used for the purchase instead of loose change.¹³⁷ I have to wonder

if disposable phones for different occasions could be the next gimmick?

Canadian cellular carriers are also now aggressively promoting to residential consumers the idea of giving up their home-based landline telephone in favour of one cellphone for use at home and away.

While the carriers re-work marketing strategies to increase sales, people are branding cellphone use as disruptive and even downright evil. Strategies for regulating it are sometimes simple and often nonsensical and outrageous. Cellulore contains examples of all these types. For example, in a *Globe and Mail* interview about telephones, Canadian talk-show host Mike Bullard – who is a former telephone installer – expresses what I think is an extreme reaction to cellphone use, though it is not unusual in other examples of cellulore. In response to the question, “Do you own a cellphone or pager?” Bullard says the following.

“I have a cellphone. Most of the time it’s locked in a drawer. There’s nothing I detest more than someone under 50 who wears a \$1,000 suit, smokes a cigar and has a cellphone in his pocket. It makes me want to slap him. When a cellphone goes off in the movie theatre, it makes me wish there were snipers.¹³⁸”

Bullard’s short interview in the “Person, Place, Thing” column is a complete rant against cellphone use. I say his extreme reaction is not unusual though because in cellulore, outrage about cellphone use is often as intense. It is also regularly focussed on similar sites of conflict: cinemas, theatres, trains, buses, restaurants, libraries, malls, etc. That is, in public places where existing rules of order make cellphone use seem ‘out of order.’ This sentiment has spawned a torrent of rules expressed in cellulore. In articles like “Users of electronic gadgets need new rules of etiquette,” “The cell-phone turn off,” and “Critics call for cell phone conduct code,” a host of commentators and etiquette experts, like Ann Landers, serve up their advice on how to be a well-behaved cellphone user. The

advise is generally to turn off cellphones in the public places identified above. Some advise includes rules for guidance, while others offer only a good tongue-lashing for all the talking that's taking place in public on cellphones. One advisor writes that, "Just because cell phones can be used just about anywhere doesn't mean owners, many of whom appear addicted to making inane calls, have carte blanche to do so whenever they please."¹³⁹

Cellular carriers are aware of the consternation that cellphone use has been causing. They have responded with new gimmicks and products like cellphones that vibrate instead of ringing and phones with an in-ear microphone so users can speak more softly. They also occasionally produce their own reminders in newsletters to subscribers and in advertising. In one AT & T ad that ran during a tennis tournament, cellphone users were reminded to "keep a lid on it during the match." (See Figure 11) In an issue of BC Tel Mobility Newsletter, the following common sense advise was offered.

Don't allow your phone to interrupt formal business meetings. If you must take a call, excuse yourself from the room. Keep calls short and to the point during informal or working meetings. Exercise good judgment at social gatherings and always remember to excuse yourself to take the call. In restaurants, let ambience be your guide. If it's a noisy café, your phone may not interrupt anyone. In a quiet atmosphere, check your calls at the door. At movies, never take a call after the picture begins. Leave the theatre to use your phone. This also applies at lectures, seminars and libraries. Use your phone freely in public places where conversation abounds. Always remember to excuse yourself from the person you are talking to if you accept a call.¹⁴⁰

Managers and owners of businesses that are commonly considered public places (malls, theatres, restaurants, etc.) are regulating cellphone use in their own ways. In an attempt to get movie-goers to turn off their cellphones before film screenings, some cinemas have been running trailers. Cineplex movie chain pulled one such trailer after receiving complaints that it was a sadistic advisory.

The trailer, entitled "Cell Block," shows an execution by electrocution being momentarily delayed by a ringing phone. The execution proceeds once the prison guards realize that it's a cellphone ringing in a viewing gallery [or in the audience] and not a phone ringing in the execution chamber, which could mean a halt to the proceedings and a pardon for the accused. The creation of such an extreme and macabre warning and Mike Bullard's comment about snipers is the reason why I say that intense reaction to cellphone use is not unusual.

Other businesses are choosing to use blocking or jamming devices to cut off electromagnetic frequencies and create ring-free zones in their establishments. Though I don't know if these devices are now being used in Canada, they are in use in Israel and Japan, two countries with higher rates of cellphone use and ownership than Canada. The use of these devices raises some questions though around who has the authority to interfere with electromagnetic frequencies considering that frequency spectrums fall under government regulation. This question has been posed in Japan.

Japan has gone so crazy over the cell phone that its ring has become almost inescapable. Complaints about the din of mobile phones have become so shrill that entrepreneurs are getting rich from an unexpectedly lucrative spinoff business: jamming devices. The devices send out powerful signals on the same frequencies as those used for incoming and outgoing calls, rendering mobile phones mute.... According to a poll released recently by a Japanese telecommunications industry group, 75 per cent of 1,300 people randomly surveyed consider mobile phone use in public places to be annoying. Almost half of those polled own mobile phones. The government, however, has concerns about jammers. The ministry of posts and communications released policy guidelines in June officially restricting the use of jamming devices to 'theatres or concert halls in which the degree of public nuisance is significant. Officials say they are concerned that malicious use of jammers could threaten the integrity of the phone system. For example, emergency calls could be blocked from reaching doctors and others. There's also concern over the potential for interference with other electronic devices, such as pacemakers. For many, though, the jammer is a promising cure for a modern plague. "It's so impolite when people think nothing of chatting on a cell phone in a public place," said Yoshiko Takeyama, 24, a waitress.

“It’d be nice to have a special seating for people who don’t want to be bothered by calls, like no-smoking areas.”¹⁴¹

Instead of using jamming devices, some businesses are trying to accommodate cellphone use by treating it like they do smoking. At least one New York restaurant has decided to offer customers the choice of dining in a cellphone zone where chatting is allowed.¹⁴²

If some people are taking matters into their own hands in order to regulate and control cellphone use, could it be possible that Canadian federal or provincial governments will be called on next to become involved in legislating cellphone use? Might government feel public pressure to regulate it like they do smoking in public places? As I mentioned in the introduction, New York State has already banned the use of hand-held cellphones while driving. In 1997, the Ontario Ministry of Transportation delayed a decision about whether using a cellphone while driving should be made an offence under the Highway Traffic Act. When this situation was under consideration, a Bell Mobility spokesman said, “It raises the question of where you draw the line. Do you legislate using a radio in a car? Do you legislate having a conversation in the car or whether you can drink a Coke or coffee in the car?”¹⁴³ In Brazil, Australia and Israel, governments have already passed laws against using a cellphone while driving. In Quebec, the Société de l’Assurance Automobile du Québec has commissioned a 10,000 participant study on the possible effect of using a cellphone while driving.¹⁴⁴

There was a time in Canada, just a few decades ago, when anti-smoking legislation had no teeth. Now all levels of Canadian government are involved in actively enforcing anti-smoking legislating because of the demonstrated impact it

could have on the health of smokers, the danger of second-hand smoke to non-smokers, and the resulting impact on health costs to treat diseases which may be smoking-related. In some cases, government is even trying to go after the tobacco manufacturers in order to recoup health costs resulting from smoking-related diseases.

What if it was demonstrated that using a cellphone is a danger to the user and to others around? Might this be the occasion for government to step in with legislation? In cellulore, there have long been rumblings about the dangers posed by cellphone use and corresponding denials from users, service providers and equipment vendors. Often, the response of cellphone users is that there may be associated risks but their phones are indispensable and they cannot live or work without them. It is not unlike the on-going volley of accusations that fly between tobacco manufacturers, government and anti-smoking groups, with smokers caught in the middle, weighing the pleasures and risks of smoking. Health research and lay opinions on the impact of cellphone use has resulted in some unusual claims, few of them conclusive but all contributing to the social discourse around the value and practice of using a cellphone.

Long before the cellphone became a popular culture icon, questions were raised about health risks. In 1993, a Florida man filed a lawsuit against a cellphone manufacturer claiming that his wife's death from cancer was the result of being exposed to electromagnetic radiation.¹⁴⁵ She had been a heavy user. In cellulore, there are regular reports claiming that cellphone use may cause cancer, headaches, high blood pressure, tumors, and other disorders. For every negative report about the hazards of cellphone use, there seems to be a challenging response denying the claims. For example, in a study published in the March

1999 issue of *The Journal of International Radiation Biology*, “scientists found a possible link between the usage of a digital phone when held to the user’s ear, and transient memory effects.”¹⁴⁶ They also found a possible link between cellphone use and high blood pressure. *Mobile Choice* magazine reported on the research and challenged it in the following predictable fashion.

To put matters in perspective, however, it is worth noting that a five to 10 mm HG increase in blood pressure could equally well be achieved by the simple process of standing up or walking up some stairs...one telecommunications expert *Mobile Choice* spoke to about the research noted that the fact of the phone ringing unexpectedly is almost certain to be more of a shock to the system than a small rise in blood pressure over a half hour period!... subject to the caveat that no one really knows whether there is a health problem associated with using a mobile phone, using a hands-free system would seem to be a logical and precautionary system of protection.¹⁴⁷

Some people think smoking is an activity that endangers all who are nearby when it happens. They agree that government has a duty to regulate where people can smoke, where cigarettes can be sold, and to set the legal age for buying smokes. They agree that government should keep the prices of cigarettes high to deter use because smoke may provoke asthma, cancer, bronchitis and other illnesses which result in higher health costs for everyone.

Smoking and talking are social activities, which occur both in public places where particular rules of order exist. I think it’s fair to say that smoking and talking on a cellphone each have a variety of meanings and different associated values and that both modify social relations and distances. As a result, discursive tension swirls around both. Though each is a distinct type of activity, both are now subject to some legal and informal regulation. So, bear with me for a moment while I continue the odd comparison between talking on a cellphone and smoking.

Though legislation exists, like health warnings on cigarette packages, for a host of smoking-related issues, there is no comfortable consensus about these rules. The claims about health risks are inconclusive and disputable. Smoking is represented in different ways by tobacco manufacturers, smokers, non-smokers, government and others. Whether they are smokers or not, some people are of the opinion that these warnings and anti-smoking legislation infringe on individual freedom. In the ongoing social discourse on smoking, one frequent response to concerns about anti-smoking legislation is the re-affirmation that public places should be prioritized over private places. Unlike home, many people share public places and, therefore, individual rights should not dominate is the argument.

The different levels of Canadian government haven't yet legislated cellphone use though some evidence of possible health risks exist. The World Health Organization has investigated claims of associated health risks and concluded that constant changes in the components and design of cellphones make it difficult to study effects. The WHO could not conclude that there are risks, but it also couldn't conclude that there are no risks.¹⁴⁸ In a 1998 article, one writer commented that "To ban cell phones because they might be hazardous to the health of users would be like pulling the emergency brake on a runaway high-speed locomotive." Indeed, it is too late to recall cellphones, but legislating use is not unthinkable, especially when compared to how smoking is regulated.

These claims and rebuttals about health risks related to smoking and using a cellphone are really negotiations about maintaining or modifying the rules that govern the use of public places, not about the activities themselves which may always each have different associated meanings and values. Claims

of health risk are really about keeping phone conversations in their place (that is, out of the public ear) and maintaining the long-standing prioritization of public places over private places.

In modern western societies one of the foremost material and symbolic divisions framing the organization of social life has been that between public and private spheres. As a number of commentators have argued, the public sphere is most often associated with the formal institutions of the state, with the rule of law and with the world of work and the economy, whereas the private domain is represented as the realm of the personal, the emotional and the domestic.¹⁴⁹

Paul du Gay writes that public places only mean what they do in relation to private places. "To be what it is, the 'public' must exclude that which it is not, and then excluded elements are what we term the 'private' domain."¹⁵⁰ These are meanings we help to construct and maintain, for in reality, public and private places continually overlap and intermingle. Though both public and private places have personal, social and material dimensions, Tim Putman suggests they are not identical because of the particular "environment encountered, the relationships enacted, and an ideal envisaged" in each sphere.¹⁵¹ Rules have been constructed about what social distances should be maintained and what activities should take place in private versus public places. The public sphere is policed in a variety of ways in order to halt violations of the rules and to punish violators.

It is now an established rule that talking on the phone takes place in an area that is more private than public, like a home, an office, or a phone booth. But if it is what we do at home that defines a private space as domestic, then a similar activity carried out outside of the home could conceivably carve a private space out of a public one, right? "If places can be conceptualized in terms of the social interactions which they tie together, then it is also the case that these interactions themselves are not static."¹⁵² And, therefore, the identity of the

places are also not static. So what happens when we cause the boundaries between these places to shift or blur so that the sanctity of the public place and its historical prioritization over the private place is disrupted? What happens when values are conflicted and highlighted in discursive tension as a result of people taking their telephones and private conversations out of homes, offices, or phone booths and into the public places of the city by using a cellphone? One reaction is to label the activity as rude or out of place. Here's what happened when the Walkman stirred up these questions.

This historical prioritization of the public sphere and related marginalization of the private sphere have important consequences for our understanding of the debates surrounding the role and impact of electronic media such as the Walkman. For arguments about the effects of these technologies in privatizing leisure are also debates about the relative importance of these two spheres. There is often more than a hint of moralizing in some of the discussions about the growing importance of the home as a site of leisure, in part because of the unsavoury connotations associated with the private in relation to the public.¹⁵³

In relation to cellphone use, moralizing about its 'out-of-place' status as a public activity is manifested in the many rules which have appeared in cellulore in the past few years. While talking on the telephone is now defined as a private activity, early phone use was public, but it too prompted anxieties about the erosion of morals and of private / public boundaries at the turn of the century. Marvin writes about the fears that were expressed in literature of the time. They seem very familiar and appropriately applicable to cellphone use now.

[It] threatened a delicately balanced order of private secrets and public knowledge, in particular that boundary between what was to be kept privileged and what could be shared between oneself and society, oneself and one's family, parents, servants, spouse, or sweetheart. Electrical communication made families, courtships, class identities, and other arenas of interaction suddenly strange, with consequences that were tirelessly spun out in electrical literature.¹⁵⁴

In cellulore, similar fears are expressed about cellphone use that years ago were provoked by the early telephone, the Walkman and likely numerous other new technologies in between. Marvin's and du Gay's books were key to helping me understand that the struggle over public and private places provoked by the use of new communication technologies is not new. Though arguments may be uniquely focussed on the cellphone now, resistance to shifting definitions of public and private places is a recurring phenomenon.

Underlying the moral panics surrounding cellphone use is the desire to fix proper boundaries and to implicitly control how people behave in the public sphere in an effort to maintain order. According to Marvin, if we agree that the boundaries between public and private places are constructed, we simply have to expect that they can and will change. And they have changed. By talking on a cellphone in public, it could be said that the activity is domesticating public places. This assumption is important to the notion of "private mobilisation," which I am using to posit that cellphone use is a reversal of Williams' notion of "mobile privatisation." Instead of consuming material goods like radios in order to cocoon in our domestic spheres, we are acquiring new goods like the cellphone that allow us to take parts of our domestic sphere into public.

But why is this manifestation of private mobilisation provoked by cellphone use instigating such wide-ranging discursive tension? Cellphone use in public seems to leave no residue. Conversations happen and unless they're taped, they're gone, right? They're immediate and ephemeral. Joke Hermes writes that media use is "a fleeting, transient experience that doesn't have much trace except in how everyday practices are structured."¹⁵⁵ While I agree with her, in the case of using a cellphone, I suggest that conversations may not be so

transient. They are as gossamer and as real as smoke from a cigarette because of our reaction to them. Tangibly, words spoken have no weight, but the sound of someone's voice can modify social distance. Therefore, words and entire conversations have symbolic weight and do take some space. "[I]n relation to place, space is like the word when it is spoken," writes Michel de Certeau.¹⁵⁶ Speaking is like making space; it is 'enunciation.' To illustrate the notion of enunciation, de Certeau provides an example of a person walking through the city. It is a useful example because the focus on mobility, social distance and personalising space make it relevant to private mobilisation.

In the framework of enunciation, the walker constitutes, in relation to this position, both a near and a far, a *here* and a *there*. To the fact that the adverbs *here* and *there* are the indicators of the locutionary seat in verbal communication—a coincidence that reinforces the parallelism between linguistic and pedestrian enunciation—we must add that this location (*here—there*) (necessarily implied by walking and indicative of a present appropriation of space by an 'I') also has the function of introducing an other in relation to this 'I' and of thus establishing a conjunctive and disjunctive articulation of places.¹⁵⁷ [*Italics in original*]

Enunciation is helpful for interpreting how the act of speaking on a cell phone in a public place first creates a private space or bubble occupied by the cellphone user and then introduces a different temporality while modifying the social relations in that space because the user is not talking to the people around him or her. The metaphor of enunciation also seems particularly appropriate to this investigation because its focus is not on language itself, but on the ways in which we use language to make space, to communicate, relate and associate. "Since communication practices always express social patterning, any perceived shift in communication strikes the social nerve by strengthening or weakening familiar structures of association," writes Marvin.¹⁵⁸ So while talking on the telephone has been taking place in phone booths found in a variety of places in

the city over the past few decades, the act of using a cellphone in the midst of the action happening in a restaurant, in a mall, in traffic while driving, or on a train, creates a new disjunctive event. It's a familiar activity that is sometimes perceived as uncontrollable because cellphone users are mobile. It cuts across the city's constructedness. Here's is one commentator's observation.

...no matter how we factor the world away, it remains. I think what drives me so nuts when a person sitting next to me on a bus makes a call from her cell phone. Yes, this busy and important caller is at no fixed point in space, but nevertheless I happen to be beside her. The job of providing physical context falls on me; I become her call's surroundings, as if I'm the phone booth wall. For me to lean over and comment on her cell-phone conversation would be as unseemly and unexpected as if I were in fact a wall; and yet I have no choice, as a sentient person, but to hear whew my chatty fellow traveler has to say.¹⁵⁹

Raymond Williams writes that the city is a place with a lot of structure. He exposes the deliberate construction of the city by speaking about both the material and symbolic sides of its identity. He writes that the city is "a form of shared consciousness rather than merely a set of techniques."¹⁶⁰ Even traffic moving through the city is "not only a technique; it is a form of consciousness and a form of social relations."¹⁶¹ The city exists as a place not only because of concrete materials that physically hold it together; it exists also as a space because there is some implicit agreement on the meaning of the city – what we do there – including rules of order. According to Doreen Massey, some people have characterised the city as operating based on a binary strategy of containment and flow.¹⁶² That is, to contain us while also allowing us to move through them in regulated ways. Cars cannot drive on sidewalks. Pedestrians cannot walk on the roadways. We are urged not to litter or loiter, vandalize or otherwise desecrate public places. A city, like other constructed places such as shopping malls, is a place "combining an extreme project of general 'planning' competence

(efforts at total unification, total management) with an intense degree of aberrance and diversity in local performance."¹⁶³

Massey writes that "it may be useful to think of places, not as areas on maps, but as constantly shifting articulations of social relations through time: and to think of particular attempts to characterise them as attempts to define, and claim coherence and a particular meaning for, specific envelopes of *space-time*."¹⁶⁴ Cellphone use is happening in specific envelopes of space-time within the invisible structured walls of the city. For now, it is still an aberrant activity that pops up just about anywhere in the city and cuts across the here (identity of the space) and now (current moment or time) of the place. Cellphone use metaphorically sends the speaker's voice and attention (and symbolically also the speaker) to somewhere other than here and now.

Though the modern urban landscape is full of aberrant images and the soundscape is full of errant noise, certain images (like graffiti) and certain sounds (like cellphones ringing or people talking on them) are deemed visual and aural pollution. Laws on pollution exist to punish violators, but we also police ourselves by adhering to the law. Judging by the examples of moral outcry in cellulore, cellphone use seems to have violated the degree of aberrance allowable in the city. As a result, the activity is now subject to some policing. Rules being imposed on cellphone use in public places could be called "strategies" for maintaining the proper identity of public places.

"Strategies" is the word Michel de Certeau uses to describe attempts to make or maintain "place." "A strategy assumes a place that can be circumscribed as *proper*," he writes.¹⁶⁵ Attempts to make space within a proper place, he calls "tactics." "A tactic insinuates itself into the other's place, fragmentarily, without

taking it over in its entirety...."¹⁶⁶ Tactics and strategies seem only relevant if it can be established that a network of antidiscipline exists in resistance to Michel Foucault's "grid of discipline," which de Certeau references.

It could be posited that rules related to cellphone use are meant to maintain the grid of discipline and the prioritization of public places over private. As well, it could be proposed that using a cellphone redefines public places. But is it really a redefinition or reappropriation if, according to the CWTA survey, it's still mostly men who are using cellphones? Male voices and discourse have long been privileged in the public sphere.

When discursive tension around Walkman use was at its peak, Iain Chambers suggested that it was "an 'empowering' or liberating technology in that it allows a person to escape the formal confines of the planned city...."¹⁶⁷ According to du Gay, Chambers contrasted "a centralized, ordered, rational city where patterns of walking and listening are clearly regulated with the chaotic, pluralized soundscape which he regards the Walkman as helping to create."¹⁶⁸ Du gay also notes that what may be a positive effect for one person or group may be a highly negative effect for a different individual or group. This is why it is difficult to ascertain whether cellphone users are carrying out tactics in the city to avoid strategies to regulate use. It is difficult to identify the tactics of cellphone users and, it is quite impossible to identify typical cellphone users. Attempting to do such an identification without doing an ethnographic study at least, would mean disregarding how different social groups are positioned in relation to cellphone use. It would mean guessing.

It would mean disregarding the major roles that power and privilege play in influencing when and how new technologies are introduced into society, who

can afford and has access to acquire such technologies, and how they are used and made meaningful. Massey says such differences exist in a “power geometry.” In a similar vein, Elspeth Probyn writes, “We can no longer take the meanings of discourses for granted, and must turn to the ways in which individuals may be differently positioned by them.” Specific practices “can therefore not be read off the surface.”¹⁶⁹ I confess that I have read off the surface of cellulose to gather bits of discourse and practice. Together these bits indicate that the cellphone was first marketed as a tool for affluent business people with service available mostly in urban centres, but with the widening of service areas and the introduction of new plans like prepaid calling plans, access to a cellphone is now possible for teens and even criminals (because they can buy prepaid cards without having to reveal their identity). The cellphone has divergent meanings and is used differently by all these groups of users and also by individuals within each group. This variety of use could include some instances which are truly subversive in the sense that they challenge established structure of power, but it is just about impossible to prove using only anecdotal evidence.

The act of using a cellphone may physically be similar for many users, but this act creates different social interactions depending on who is doing it and where and when it occurs. So the interaction will be different depending on whether it is a cab driver using a cellphone while a passenger rides in the cab, or whether it is an elementary school student using a cellphone in the presence of peers on the schoolbus or in the presence of peers and a teacher in a classroom. Different structures of power are at play in each of these situations. While there are no typical users, there are also no typical uses.

Though I've read off the surface to identify patterns of discourse and practice using cellulore, even these are atypical and diverse. If there is something typical in this discussion, it is assumption that moral panics about cellphone use, especially its effect on the boundaries between public and private places, will pass because similar panic around the use of other technologies that were once new have now passed into history.

Conclusion: New and Old Tensions

I hope I have demonstrated that a great deal of discursive tension swirls around cellphone use as a result of divergent meanings and social practices. Though this tension may be newly manifested in the cellphone, strands of the arguments in it are not new, especially the focus on maintaining social order in relation to public places. The processes and conditions that create such discursive tension will be recreated for other portable or wireless technologies as their uses are pushed and pulled into our everyday lives. In *When Old Technologies Were News: Thinking About Electric Communication in the Late Nineteenth Century*, Carolyn Marvin summarizes the processes and conditions that influenced the habituation of early telephone use. I suggest they are relevant still to the cellphone. Her three-point summary echoes three stages of du Gay's "circuit of culture:" representation, identity and regulation. I will use Marvin's three points to summarize this thesis, paying attention to consumption and production in each point.

The key dimensions in the world of electrical imagination were three. *Electrical discourse shaped itself first to the human body*, the frame in which experience is absorbed and measured by every individual according to complex cultural codes. Ways of viewing the body and its activities help mark an essential, socially constructed distinction between nature and culture.... After the body, *the second framework that structured the social meaning of electricity was the immediate community* – the family, the professional group, gender, race, and class.... New media also altered real and perceived social distances between groups, making some groups more accessible and other groups less so to still other groups. If electric communication seemed to threaten certain boundaries of family, gender, and nation, its implementation was also a condition for advancing professional status and establishing a highly serviceable barrier between experts and laymen. One way to maintain a social boundary is to charge a high fee for admission.... *The third realm that shaped nineteenth-century social discourse about electricity was the unfamiliar community*. The subject of this discourse was the use of electricity to organize and regiment the world outside the family, the world outside the expert fraternity, the world outside the male fraternity,

the world outside the middle class, the world outside the nation. By fantasy substitutions of a thing-filled world for painful resource and ideological conflict, homogenizing electrical technology would render politics obsolete, according to a familiar scenario.¹⁷⁰ [*Emphasis mine*]

Through the social practices of consumers and the promotional efforts of producers, the cellphone has been naturalized as an accessory for the urban nomad. The cellphone is represented as portable, wearable, fashionable media. In the process of being naturalized and habituated, the instrument has been miniaturized, made nearly invisible and even represented as a future implantable chip. Like a biological cell, the cellphone has been made a part of us. Its use is no longer foreign, but familiar. In our everyday lives now, cellphone use “makes sense.”

In our late-modern society where people are sometimes characterized as being rootless, part of the constructed role or social identity of the cellphone is that of a tool to keep us tethered to family, friends, colleagues and others as we move through the city. In cellulore, this ability to keep in touch is sometimes conversely described as comforting and liberating and sometimes described as contact or information overload that causes “technostress.” “I knew things had gone too far when my e-mail started calling my cell phone... My computer would call my Fido PCS phone if I got urgent e-mail; the phone could send e-mail back to confirm,” writes one commentator.¹⁷¹

In contrast to this private tethering, Raymond Barglow argues that public domains that people previously occupied together are being fragmented, partly as a result of our use of new information technologies. He gives the examples of telecommuting and being able to shop or do banking from home which eliminates the need to venture out. He calls this a “depersonalizing consequence”

of technology, which sounds like he's blaming the tools for this change rather than how we are using the tools to provoke change.¹⁷² The public sphere is not a natural or default arena for democratic or discursive relations, as Nancy Fraser argued in her essay, "Rethinking the public sphere." Using a feminist perspective, she highlighted the limitations of a mythic public space for all voices. Power and privilege influence who has access to the public sphere, who is allowed to talk or broadcast there, and how the discourse is valued and interpreted.¹⁷³

On a similar note, in reference to status, mobility and privilege, Massey writes this: "Different social groups have distinct relationships to this anyway-differentiated mobility: some are more in charge of it than others; some initiate flows and movement, other don't; some are more on the receiving end of it than others; some are effectively imprisoned by it."¹⁷⁴ As Massey also writes, "We need to ask, in other words, whether our relative mobility and power over mobility and communication entrenches the spatial imprisonment of other groups."¹⁷⁵ In relation to the cellphone, conflicts arising from these different relationships is evident in the formal and informal strategies that are employed first to control access and now to control usage.

Through social practices involving the cellphone, our sense of public and private and our sense of culture, community and ways of communication are changed. These social practices are carving out personalised spaces in public places. Talking on cellphones is changing the social distance between individuals. Increased access to the cellphone has changed the distance between social groups as it moves from being an exclusive tool for the business elite or a toy for the yuppie set to an instrument that is acquired by variety of social groups, for

whom it has different uses, meaning and values. Fears about electronic tagging, eavesdropping and health risks posed by cellphone use have created discursive tensions that highlight resistance to changes in the traditional values and practices associated with the cultures, communities, and ways of communication we have naturalized and grown accustomed to.

Evident also in the discursive tensions surrounding cellphone use are long-standing inequalities and struggles over power between different social groups. The fact that the cellphone was first marketed to the business elite and priced way out of the reach for ordinary consumers, meant that a privileged group had an advantage over other social groups because it was the first to have real-time access to information via this mobile communication tool. In reference to such inequality of access, Williams wrote the following.

It is never quite true to say that in modern societies, when a social need has been demonstrated, its appropriate technology will be found... the key question, about technological response to a need, is less a question about the need itself than about its place in an existing social formation. A need which corresponds with the priorities of the real decision-making groups will, obviously, more quickly attract the investment of resources and the official permission, approval or encouragement on which a working technology, as distinct from available technical devices, depends. We can see this clearly in the major development of industrial production and, significantly, in military technology.¹⁷⁶

Now that subscription rates in the privileged social groups that had first access to the cellphone are nearly at saturation points, service providers are attempting to cannibalize residential landline phone consumers to get new cellular subscribers. I have to wonder if the rate of cellphone users in Canada surpasses the number of landline phone users, if government might be forced to transfer its provision of subsidies from landline networks to wireless networks, which would further disadvantage users of the older technology. Already the

CRTC has forfeited its role in regulating rates for cellular service, as of 1996, in the name of open competition. Cellular services providers are also looking overseas to developing countries with damaged or non-existent landline networks for new subscribers and more profits, which will flow back to first-world producers after national governments have received licensing fees that are paltry in comparison to long-term profits. The cellphone is being pushed into unfamiliar foreign communities and cultures.

Based on some industry forecasts, in a few years only a handful of cellular providers will operate worldwide compared to the dozens currently in North America alone. Early 1999 rumours of Bell seeking to takeover Clearnet never actually materialised, but a similar move is underway in Europe. Vodafone AirTouch PLC of Britain recently merged with Mannesmann AG of Germany in one of the world's biggest takeovers worth \$180-billion U.S. (or \$248-billion Canadian). Vodafone was already the world's largest mobile phone company with investments or services on five continents. In addition, the British government is about to collect billions of pounds (approximately \$23-billion Canadian) from an auction of new mobile phone licences.¹⁷⁷ Vodafone is pushing up the bidding price, followed by MCI Worldcom of the U.S. and 3GUK, an Irish company. At the same time, cellular-equipment makers and service providers are scrambling to be the first to offer multimedia mobile phones that can be used for Internet surfing and to do other heavy data duty.

According to CWTA's *Wireless Facts* of June 1999: "Half of the world's population has never made a phone call. Many less developed regions of the world are leap-frogging past wired technologies and going straight to wireless local access, which provides a more cost-efficient infrastructure."¹⁷⁸ It is not

unlikely that the globalization efforts of the cellular service providers will also be homogenizing efforts. Regardless of what meanings the providers will associate with the cellphone in these unfamiliar communities, there is no way to predict how specific social practices or culturally specific cellulore will reshape the cellphone's meaning and value. It would be a mistake to assume also that access to information through the cellphone and the ability to be mobile while still being in touch will flatten out the existing unequal relationships between different social groups in developing countries or between individuals in those countries and individuals in first-world countries.

While there is the line of thought that says that there can never be enough telecommunications particularly in the mobile area at least in the near term future, there is also the perception that maybe we in the developed world are communicated out or nearly... In the developing world, on the other hand, it is a very different story. Growing from a telecommunications base of near zero to a level where the economy and education can thrive requires giant steps, not the cautious shuffles and occasional toe-stubbing that brought us here. The giant step approach of course flies in the face of the dictum that declares experience is the best teacher¹⁷⁹

In reference to early technologies powered by electricity, Marvin wrote, "The more any medium triumphed over distance, time, and embodied presence, the more exciting it was, and the more it seemed to tread the path of the future."¹⁸⁰ In relation to the cellphone and other new wireless technologies on the horizon for consumers in the first-world and in developing countries, we could say, "here we go again."

Appendix A

Back in the 1970s, New York City seared from the heat coming from Studio 54, the ultrahip disco where the world's elite came to play. Drugs coursed through the club's veins, lighting up the night like little stars. The walls heaved with lust. But one night a couple of months ago, the city's media gathered at the recently reopened club to experience a distinctly nineties kind of desire: raw consumer lust. With the raunchy opening scene of the Broadway musical *Cabaret* for a backdrop, the Finnish cellphone manufacturer Nokia unveiled its newest phone, a sleek, chrome trinket retailing for up to \$1,000 (U.S.) that was dubbed a must-have when it made its debut in Europe and Asia last year.

"We bring you the newest object of desire," said an announcer's voice gravely.

Partly, that desire and the tag of must-have came from the months-long waiting lists that formed for the Nokia 8800 series after such celebrities as Sean Connery were photographed using one of the devices. The Hong Kong launch last Fall kicked off with a phone giveaway to local celebrities. Members of the pop band Ace of Base were presented with 8800s on a visit to Nokia's home country of Finland, an act of beneficence duly noted in a Nokia press release. (This was an especially sneaky move, since Ace of Base is from Sweden, home of Nokia rival Ericsson.)

Then there's the phone's on-screen cachet. In April, characters in the sci-fi blockbuster *The Matrix* were seen using a souped-up version of the 8800. Last week, *Vanity Fair* fashion director Elizabeth Saltzman played herself in a film currently shooting in Manhattan called *Intern*, in which she as photographed seated at Greenwich Village's II Cantinori next to Gwyneth Paltrow, Nokia 8800 on the table... Avril Graham, the executive beauty and fashion editor at *Marie Claire*, was so taken with the phone's design that she immediately decided to feature it in the magazine's July issue, grouped together with the latest Vuitton luggage, a \$1,200 (U.S.) Donna Karan bag and a cashmere cardigan retailing for \$800.

"These are the absolute must-haves of the season," said Graham earlier this week. "Everybody who is fashionable should really be carrying them

around." *Marie Claire* followed up its original spread with a giveaway of 20 phones in its August issue, leading to a deluge of reader mail. In June, the *Robb Report*, a glossy monthly bible for those who inexplicably attained great wealth without having brains enough to figure out what to do with it, named the 8800, "the best cellular phone."...

In recent weeks, as the phone rolled off the North American production line, they were sent out to dozens of print and TV journalists who attended the Studio 54 event, including *Jane* magazine, *Business Week*, *Barron's*, *GQ*, *Glamour*, *Vanity Fair*, *Cosmopolitan*, *Flare*, *Ocean Drive* magazine, *U.S. News and World Report*, *Toronto Life Fashion*, *Vibe*, *Newsweek*, and the networks CBS and Fox.

Deborah Fulsand, the senior editor of Fashion and Design at *Flare* magazine who was flown from Toronto to New York by Nokia, said she found the cellphone launch inordinately lavish. "Things have gotten bigger and bigger to capture the attention of the fashion press in recent years. Cosmetic and fragrance launches have been quite extravagant," she said. "The beauty industry always makes a pretty splashy affair, and it looks like Nokia is trying to tie in to some of that. You wonder where it's all going to stop."...

Taking its cue from the couture houses, who long ago figured out they could keep our heads spinning and our wallets empty if they came up with new clothes for us to buy every three months, Nokia a few years ago began moving the cell phone from a purely utilitarian business to a fashion accessory. Along with the different phone designs, the company sold faceplates in a variety of colours that could be matched with purses, dresses and hair dyes. (The fashion industry, always looking for new markets, is gleefully responding to the prevalence of cellphones, creating special high-end carrying cases for the devices.)

Appendix B

PERSON: Mike Bullard, comedian, host of The Comedy Network's Open Mike with Mike Bullard, former telephone installer

PLACE: The set of his show, at Yonge Street's Masonic Temple, Toronto

THING: The telephone

How many telephones do you have in your home? How many is enough?

"I have just one right now. Ordinarily, it's three. I used to like the phone until I started putting 'em in. Now I think people should write more letters."

Do you own a cellphone or pager?

"I have a cellphone. Most of the time it's locked in a drawer. There's nothing I detest more than someone under 50 who wears a \$1,000 suit, smokes a cigar and has a cellphone in his pocket. It makes me want to slap him. What a cellphone goes off in the movie theatre, it makes me wish there were snipers."

Do you have any cute phones—one that looks like Mickey Mouse or a plush toy?

"No. Mine all look like phones. If it were up to me, they would be dial phones and black."

How many buttons do you have on your business phone?

"I have two."

As your career takes off, do you aspire to more—to a Leno-like quantity of buttons?

"As my career takes off, I hope to be so insular that I don't even have a phone."

Do you have speed dial?

"My friendships never last long enough to warrant that."

Are you one of those swine who monitor their calls, rarely, if ever, picking up?

“No. I always pick up. I don’t have call block or call display. There is nothing like the joy of being able to say to someone, ‘Don’t ever call here again!’”

Technology has virtually eliminated the joyous childhood pastime of making funny phone calls to random strangers. Are you saddened by this?

“I can tell you were a practitioner. You use the word ‘funny’ instead of ‘crank’ or ‘obscene.’ I was never a practitioner. Face to face has always been my game.

Advertisements sell extension phones, cellphones and pagers as essentials of a vibrant, fulfilling life. Aren’t they just creating slaves to technology?

“If you are in a job where you have to carry a cellphone, that’s different. People [who voluntarily buy one] are slaves to their stupidity. I have more respect for someone who goes out and buys a pager to be a drug dealer than someone who doesn’t work.”

Bibliography

- Allor, Marty, "Locating Cultural Activity: The 'Main' as Chronotope and Heterotopia." *Topia* 1 (1997): 42-54.
- Barglow, Raymond, "Boundary." **The Crisis of the Self in the Age of Information: Computers, Dolphins and Dreams**. Routledge, London & New York, 1994: 69-80.
- Brown, K.E. **PCS and the Big Picture: A Wireless Technology Overview** (A Report for the Information Technology Industry Branch of Industry Canada). Apr. 8., 1997.
- De Certeau, Michel. **The Practice of Everyday Life**. Trans. Steven F. Rendall. University of California Press, Berkeley: 1984.
- Du Gay, Paul, Stuart Hall, Linda Janes, Hugh Mackay and Keith Negus. **Doing Cultural Studies: The Story of the Sony Walkman**. Sage Publications, London: 1997.
- Foucault, Michel, "Space, power and knowledge" (interview). **The Cultural Studies Reader**, Simon Doring, ed. Routledge, London & New York: 1993: 161-169.
- Fraser, Nancy. "Rethinking the public sphere: a contribution to the critique of actually existing democracy," in Bruce Robbins, Ed. **The Phantom Public Sphere**, Minneapolis, The University of Minnesota Press, 1993: 1-32.
- Harvey, David, "From space to place and back again: Reflections on the condition of postmodernity." **Mapping the Futures: Local cultures, global change**. Eds. Jon Bird, Barry Curtis, Tim Putman, George Robertson and Lisa Tickner. Routledge, London & New York, 1993: 3-29.
- Hebdige, Dick, "Object as Image: the Italian Scooter Cycle." **Hiding in the Light: On Images and Things**. Routledge, London & New York, 1988: 77-115.
- Hebdige, Dick. **Subculture: The Meaning of Style**. Routledge, London & New York: 1979.
- Hermes, Joke, "Media, Meaning and Everyday Life." **Cultural Studies**, vol. 7, no. 3 (Oct. 1993): 493-506.
- KPMG Management Consulting (for the Steering Committee of the Human Resources Study of the Canadian Telecommunications Industry). "Policy and Regulatory Milestones in the Telecommunications Services Sector." **Canadian Telecommunications Industry**. Spring 1996, Ottawa: 36-39.
- Macpherson, Myles G. **The Future of Personal Communication Systems: A Canadian Perspective** (A Business Research Project Submitted in Partial

Fulfilment for the Degree of Masters of Business Administration). Concordia University, Faculty of Commerce & Administration, Montreal, May 1998.

Marvin, Carolyn. **When Old Technologies Were New: Thinking About Electric Communication in the Late Nineteenth Century**. Oxford University Press, New York & Oxford: 1988.

Massey, Doreen, "Places and Their Pasts." **History Workshop Journal**, issue 39 (1995): 182-192.

Massey, Doreen, "Power-geometry and a progressive sense of place." **Mapping the Futures: Local cultures, global change**. Eds. Jon Bird, Barry Curtis, Tim Putman, George Robertson and Lisa Tickner. Routledge, London & New York, 1993: 59-69.

Morris, Meaghan. "Things to do with shopping centres." **The Cultural Studies Reader**. Simon During, ed. Routledge, London & New York, 1993: 295-319.

Probyn, Elspeth, "Travels in the Postmodern: Making Sense of the Local." **Feminism/postmodernism**. Ed. Linda J. Nicholson. Routledge, London & New York, 1990: 176-189.

Putman, Tim, "Beyond the modern home: Shifting the parameters of residence." **Mapping the Futures: Local cultures, global change**. Eds. Jon Bird, Barry Curtis, Tim Putman, George Robertson and Lisa Tickner. Routledge, London & New York, 1993: 150-165.

Robinson, David and Rick Nadeau (Decima Research Inc.). **Usage and Attitudes Toward Wireless Communications in Canada**. Canadian Wireless Telecommunications Association, Ottawa, May 1999.

Schwartz, Rachael E. "Cellular." **Wireless Communications in Developing Countries: Cellular and Satellite Systems**. Artech House, Boston & London, 1996: 17-126.

Williams, Raymond, "Communications, Technologies and Social Institutions." **What I Came to Say**. Hutchinson Radius, London, 1989: 172-192.

Williams, Raymond. **Keywords: a vocabulary of culture and society**. Fontana, London: 1983.

Williams, Raymond. "Basic Concepts: Culture." **Marxism and Literature**. Oxford University Press, Oxford, 1977: 11-20.

Williams, Raymond, "The technology and the society." **Television: Technology and Cultural Form**. Fontana, London, 1974: 9-31.

Cellulore

"An all-out licence to sell: New James Bond movie has 'promotional partners' spending like never before." **Vancouver Sun**, final ed. (Dec. 6, 1997): E12.

"AT & T to offer cell phones in vending machines." **The Calgary Herald** (Mar. 26, 1996): D1.

"AT & T's new system aimed at ending cell-phone fraud." **The Spectator** (Hamilton) (Oct. 11, 1994, Final Edition): C11.

"Barbie sets up shop at the Bay." **Ottawa Citizen** (Oct. 12, 1997): A4.

"Bishop orders priests to leave their cell phones outside church walls." **The Halifax Daily News** (Dec. 26, 1994): 51.

"Cell Break." **The New York Times** (Dec. 27, 1998): section 9, pg. 2.

"Cell phone cancer research hindered." **Computing Canada**, vol. 24, no. 4 (Feb. 2, 1998): 15.

"Cell phone chatterbox." **Ottawa Citizen**, final ed. (Aug. 10, 1997): M13.

"Cell Phone Confidential." Produced by Jennifer Campbell. Hosted by Wendy Mesley. **UNDERcurrents**. CBC-TV. Sept. 30, 1997.

"Cell Phone Craze Has Italy Humming." **New York Times** (Aug. 5, 1999): A8.

"Cell phone market." Hosted by Robert Scully. **Venture**. CBC-TV. Apr. 14, 1996.

"Cell phone obsession in Israel." Reported by Anna Maria Tremonti. Hosted by Alison Smith. **The National**. CBC-TV. Nov. 22, 1996.

"Cell phones banned at gas pumps: Electronic impulses could ignite fumes, Exxon worries." **The Gazette** (Montreal), final ed. (Jan. 15, 1999): F6.

"Cell phones may increase wreck rate" [car accidents]. **Purchasing**, vol. 122, issue 10 (June 10, 1997): 64.

"Cell phones snitch on you." **The Province** (Vancouver) (Feb. 3, 1997): A15.

"Cell Your World." **Shift Magazine** (Nov. 1998): 21.

"Cellphone couture: At this year's London Fashion Week, models and mobile phones made a connection." **Mobile Choice**, issue 29 (Apr. 1999): 12-13.

"Clearnet winning customers faster than analysts expected." **The Globe and Mail** (Apr. 6, 1998): <http://news.globetechnology.com>

"Company pulls ad showing phone offer to Jesus." **The Ottawa Citizen**, final ed. (Dec. 5, 1998): A3.

"Dial tones." **Calgary Herald**, final ed. (Mar. 22, 1997): D4.

"Fido's Phone Went With Him Everywhere." **The Province** (Vancouver) (Jan. 4, 1998): A31.

"First cellphones, then air freshener?" **The Globe and Mail** (Sep. 24, 1998):
<http://news.globetechnology.com>

"Handbag maker Maxx debuting line of small leather goods, including wallets and cell-phone cases." **Women's Wear Daily** (Aug. 20, 1999): 20.

"Hip hop phones." **Mobile Choice**, issue 29 (Apr. 1999): 5.

"It Takes a Cell Phone." **Wall Street Journal** (June 25, 1999): B1.

"Link probed between headaches, cell phones." **Medical Post**, vol. 32, no. 17 (May 7, 1996): 24.

"Man jailed for not turning phone off on plane." **The Globe and Mail** (July 22, 1999): <http://news.globetechnology.com>

"The Merchants' Tale." **Mobile Choice** (issue 34) Sept. 1999: 36.

"Microcell Introduces Fido Cellular." **The Halifax Daily News** (Nov. 15, 1996): 30.

"Microcell Unleashes Fidomatic." **Marketing Magazine** (Oct. 5, 1998): 1.

"New technology can pinpoint car's location." **Financial Post Daily**, vol. 10, no. 8, (Feb. 14, 1997): A9.

"No calls for alarm? Mobile Choice cuts through the sensationalism of recent media reports to look at the facts as they stand." **Mobile Choice**, issue 26 (Jan. 1999): 13.

"Phonoholics: Cellular addiction can be hazardous to your health." **Calgary Herald**, final ed. (July 14, 1997): A6.

"Putting your health on the line: The papers seem full of health scares associated with mobile phones these days. So what's really going on?" **Mobile Choice**, issue 30 (May 1999): 20-21.

"Saintly calls." **Mobile Choice**, issue 31 (June 1999): 7.

"Talk is Cheap: Canadian Wireless Rates Are Among the Lowest in the World." **Yankee Group in Canada Report**, vol. 3, no. 13 (June 1999).
<http://www.yankeegroupcanada.com/Reports/Talkischeap.html>

"Teenagers and Cell Phones: It's All Talk, and All the Time." **New York Times** (Aug. 2, 1999): A1.

"Telephones be damned, all they need in Budapest are satellite dishes." **Financial Post** (National Post), vol. 1, no. 10 (Nov. 6 1998): C12.

"Tracking the call for help: TruePosition wireless location system." **Discover**, vol. 19, no. 7 (July 1998): 72.

"Watch-size cell phone developed." **The Calgary Herald** (June 20, 1996): D3.

"Young guns: The Siemens C25 is a compact dual band phone aimed at the youth market. But are cool ring tone and a ticket hotline enough to give the phone street cred?" **Mobile Choice**, issue 30 (May 1999): 25-26.

Adams, Eric J. "Roam Home: Cell phone coverage is going global." **World Trade**, vol. 11, issue 7 (July 1998): 70-72.

Allentuck, Andrew. "Risks in the race for new technology." **The Globe and Mail** (Oct. 13, 1998): <http://news.globetechnology.com>

Arnold, Steve. "MD Still Fighting Towers: Will urge town to delay cell-phone antenna hearing." **The Spectator** (Hamilton) (July 26, 1996): B2.

Aversa, Jeannine. "Cell users over etiquette edge: In theatre, restaurants, gyms, phone fanatics are redefining the meaning of annoying." **Vancouver Sun** (Feb. 12, 1999): F16.

Barnett, Vicki. "Critics call for cell phone conduct code." **Calgary Herald**, final ed. (Mar. 17, 1997): B1.

Bates, Linda. "Users of electronic gadgets need new rules of etiquette." **The Vancouver Sun** (Jan. 20, 1996): H2.

Baum, Richard. "Britain Seen Making £10B on Mobile Licences: Five times some forecasts." **Financial Post** (Mar. 25, 2000): D11.

Bird, Heather. "Cell Phones Have No Secrets." **The Toronto Sun**, final ed. (Apr. 27, 1996): 12.

Blackman, Ted. "Watch the Open, but leave cell phone home." **The Gazette** (Montreal), final ed. (Aug. 31, 1997): B1.

Blinch, Russell. "Making connections: demand for wireless connectivity will likely increase in the future." **Computer Dealer News**, vol. 14, no. 41 (Nov. 2, 1998): 41.

Boei, William. "Microcell unleashes Fido cell-phone service; Next generation technology will 'follow you anywhere'." **The Edmonton Journal**, final ed. (Jul 5, 1997): E7.

Boone, Mike. "What you see; What you get." **The Gazette** (Montreal) (Dec. 11, 1999): D1, D3.

- Boone, Mike. "Don't bet on Miss Manners to silence cell phones." **The Gazette** (Montreal), final ed. (Dec. 27, 1997): B5.
- Bouw, Brenda. "Annoying cellular phones face ban: At some restaurants and clubs, the portable gadgets aren't tolerated." **The Toronto Star** (July 26, 1996): E1.
- Bouw, Brenda. "The cell-phone turn off: Nobody likes the sound of someone else's cellular." **The Halifax Daily News** (Jul. 21, 1996): 23.
- Brady, Margret. "Inventing wireless." **Financial Post**, vol. 91, no. 41 (Oct. 12, 1998): R30.
- Bramwell, Ryan. "Bright new phones." **Manitoba Business**, vol. 19, no. 8 (Oct. 1997): 18, 21.
- Branswell, Jack. "Catch-up Time for Cell Phones." **Marketing Magazine** (Nov. 2, 1998): 18, 19.
- Brimelow, Peter. "The Silent Boom: PCs and cell phones have spread faster than their forerunners, radios and telephones." **FORBES**, vol. 160, issue 1 (July 7, 1997): 170-171.
- Brown, Louise. "Schools rule on fashion faux pas: Styles that distract from learning not deemed appropriate." **The Toronto Star**, final ed. (Aug. 20, 1998): G8.
- Bullard, Mike. "Person, Place, Thing." By Anthony Jenkins. **The Globe and Mail** (Jan. 30, 1999): D4.
- Bulmer, Bobbi. "Telco barrage: sometimes it seems like there's nothing but phone ads on TV." **Marketing Magazine**, vol. 102, no. 39 (Oct. 20, 1997): 22, 24.
- Bulmer, Bobbi. "Nokia aims 'fashionable' phones at women." **Marketing Magazine**, vol. 102, no. 35 (Sept. 22, 1997): 3.
- Campbell, Burke and Murray Conron. "Chasing consumers: technology is making people more mobile, and elusive for advertisers." **Financial Post**, vol. 10, no. 33 (Aug. 16, 1997): 35.
- Canadian Wireless Telecommunications Association. "Industry Facts and Statistics." **Wireless Facts** (June 1999): <http://www.cwta.ca/indguide/facts.htm>
- Careless, James. "Blue-Chip Marketers Join the Ranks of the Infomercial True Believers: Cintel AT&T and the Bank of Montreal relish having 30 full minutes to deliver a complicated offer." **Marketing Magazine**, vol. 104, no. 41 (Nov. 1, 1999): 26, 28.
- Carrel, Paul. "Vodafone victory signals change for telecom landscape." **Financial Post** (Feb. 5, 2000): D11.

Carrey, Patrick. **Personal Communications Services**. Ottawa, Industry Canada (Radio Spectrum Management and Telecommunications) 30 Apr. 1999: <http://strategis.ic.gc.ca/SSG/sf01782e.html>

Caudron, Shari. "Virtual Manners: A primer on international etiquette in the age of electronic communication." **Industry Week**, vol. 247, issue 13 (July 6, 1998): 52, 53.

Chavich, Cinda. "Keep your elbows and your laptops off the table; Techno-manners for the new generation of cyber-boors." **The Edmonton Journal** (Nov. 18, 1996): B4.

Cobain, David. "Cellular Communications Makes a Comeback." **The Financial Post** (Nov. 8, 1996): 4.

Cobain, David. "Accessible Accessory: Once an appliance exclusive to business tycoons, the cellular phone has dropped in price and is now available to denizens of street and shopping mall." **The Financial Post** (Oct. 5, 1996): T19.

Colebourn, John. "Help for women at any time: Cell phones to aid those at risk of violence." **The Province** (Vancouver), final ed. (Nov. 10, 1997): A2.

Coleman, Barbara. "In a Few Words: Phone dunce." **The Ottawa Citizen** (June 29, 1996): B7.

Corcoran, Terence. "Cell-phone scare in parade of bogus threats." **Calgary Herald** (Feb. 9, 1999): A15.

Cox, Wendy. "Cell phones become trendy safeguard for teens and parents." **The Edmonton Journal** (Oct. 12, 1996): B4.

Crawford, Trish. "What a rush! In these fast times, being busy is the new measure of status." **The Toronto Star** (No. 20, 1999): M1, M2.

Cribb, Robert. "An overlay of dialing confusion." **The Toronto Star** (Sept. 4, 1999): E1.

Cribb, Robert. "Rewired: Technology has transformed 20th century life, and we're only beginning to understand the implications." **The Toronto Star** (Aug. 29, 1999): B1-B3.

Cribb, Robert. "Canadians love cash-on-barrel phone deals: But experts say paying in advance is too expensive." **The Toronto Star** (Jan. 9, 1999): E1.

Cromb, Ryan. "Schools in cell phone sales plan." **The Edmonton Journal** (Dec. 12, 1996): B2.

Crosariol, Beppi. "The Upwardly Mobile Phone." **Report on Business Magazine**, vol. 13, no. 5 (Nov. 1996): 98-106.

- D'Agostino, Danielle. "Teaching Brands New Tricks: Fido's PR campaign worked by leveraging off the visual icon of the dog." **Marketing Magazine** (Feb. 22, 1999): 28.
- Daniels, Chris. "Prepaid brings PCS to young folks." **Marketing Magazine**, vol. 104, no. 39 (Oct. 18, 1999): 3.
- Davies, Erin. "Planes and Cell Phones: The Truth." **Fortune**, vol. 136, issue 6 (Sept. 29, 1997): 48-52.
- Dawson, Chester. "Japan jumps on jamming obnoxious cell phones." **Vancouver Sun** (Aug. 27, 1998): F3.
- DeCloet, Derek. "No strings attached: In the 90s it was cheap computing. The next decade will be defined by the arrival of all things wireless." **Canadian Business** (June 25, 1999): 187, 188.
- DeCloet, Derek. "Towers of terror: anti-cellular hysteria threatens the expansion of the wireless phone industry." **British Columbia Report**, vol. 9, no. 52 (Nov. 2, 1998): 47.
- DeCloet, Derek. "Is This the Next Betamax? Companies are betting millions on CDMA, a new cell phone technology that promises higher quality and lower costs." **Financial Post** (Sept. 28, 1996): 15.
- DeMont, Philip. "Bell offers reverse-charge cellular calling." **The Financial Post** (Nov. 19, 1996): 11.
- DeMont, Philip. "Microcell raises \$814M for phone network." **Financial Post** (Jul. 5, 1996): 7.
- Dempster, Lisa. "Cell phone fever." **The Calgary Herald** (Mar. 24, 1996): A3.
- Dickson, Tim. "A Global Calling." **Wired** (Aug. 1998): 144.
- Dyck, Lloyd. "Attention audiences: sit down and shut up." **The Vancouver Sun** (Dec. 28, 1996): D3.
- English, Robert. "What do you do when you're really lost? New tracking system a reassuring companion when you're out on the proverbial dark and lonely road." **Financial Post Daily**, vol. 11, no. 12 (Feb. 20, 1998): A2.
- Enright, Greg. "Clearnet touts growth, new pricing plan." **Computing Canada**, vol. 24, no. 21 (June 1, 1998): 27.
- Evans, Mark. "Rogers Cantel going door-to-door with Amway: Distribution deal unorthodox, but will see 100,000 representatives selling wireless phones." **The Globe and Mail** (Feb. 2, 1999): <http://news.globetechnology.com>
- Evans, Mark. "Cellphone firms jump into prepaid calling." **The Globe and Mail** (Sep. 22, 1998): <http://news.globetechnology.com>

Folb, Mikala. "Cell phones taking aim at new targets." **Marketing Magazine**, vol. 102, no. 20 (May 26, 1997): 14.

Ford, Ashley. "Designer cell—just \$1000." **The Province** (Vancouver) (June 2, 1999): A27.

Foss, Krista. "Stressed out? Blame technology." **The Globe and Mail** (May 29, 1998): <http://news.globetechnology.com>

Fox, Barry. "Crime Wave: The Jill Dando case has highlighted police concern about criminal use of prepay mobiles." **Mobile Choice**, issue 35 (Oct. 1999): 8.

Fraser, Jean. "The talk of the town is small, sleek and cordless." **The Edmonton Journal**, final ed. (Feb. 27, 1997): F4.

Frazier, Ian. "Dearly Disconnected: A tribute to one of the great, heretofore unmourned casualties of the digital revolution – the pay phone." **Mother Jones** (Jan/Feb 2000): 60-63.

Freund, Jesse. "Ring-Free Zone." **Wired** (Aug. 1998): 144.

Gladman, Jerry. "One serious hang-up; some cell phone users should be charged with careless drivelling." **The Toronto Sun**, final ed. (Apr. 6, 1996): 29.

Gold, Marta. "Talk about keeping tabs on a teen: Kids packing phones as cheap chat sends cell business soaring." **The Edmonton Journal** (June 19, 1996): A1.

Gold, Steve. "First Mobile Phone Use on Plane Prosecution Case Begins." **Newsbytes** (June 29, 1999): <http://www.newsbytes.com>

Greenwald, John. "Mobile warfare: prices plunge in the cell-phone fight. But who knows what to buy?" **Time** (Canadian edition), vol. 149, no. 21 (May 26, 1997): 34-6.

Habbick, Brian F. and Michele L. Masley. "Wireless Telecommunications and Health." **Canadian Wireless Telecommunications Association**, (May 1999): http://www.cwta.ca/healthsafety/health_main.html

Halverson, Richard. "Mass market making the PCS connection." **Discount Store News**, vol. 36, issue 11 (June 2, 1997): 35.

Hamilton, Tyler. "Wireless data companies ride tidal wave of investor interest." **The Globe and Mail** (Feb. 5, 2000): B11

Hamilton, Tyler. "Lack of prepaid plan slows Clearnet customer growth." **The Globe and Mail** (Apr. 16, 1999): <http://news.globetechnology.com>

Hamilton, Tyler. "Paging, GPS technologies track parolees." **Technology in Government**, vol. 5, no. 9 (Sep. 1998): 6.

Hamilton, Tyler. "PCS firms square off at Wireless '97." **Computing Canada**, vol. 23, no. 13 (June 23, 1997): 33, 36.

Hamilton, Tyler. "Cell users sitting ducks in the world of espionage." **Computing Canada**, vol. 23, no. 10 (May 12, 1997): 6.

Hawaleshka, Danylo. "Pirates of the airwaves: cell-phone clones pose a growing threat." **Maclean's**, vol. 110, no. 16 (Apr. 21, 1997): 44.

Hawn, Carleen. "A second parting of the Red Sea." **FORBES**, vol. 161, issue 5 (Mar. 9, 1998): 138-146.

Heinrich, Erik. "Cellular confusion: picking a phone package can be a headache." **Maclean's**, vol. 111, no. 17 (Apr. 27, 1998): 56.

Hercz, Robert. "Lend me your ears (and I'll throw in the phone)." **Canadian Business**, vol. 70, no. 16 (Nov. 28, 1997): 115-119.

Hessen, Wendy. "Tommy's Got a Brand-New Bag [*with pocket for a cell phone*]." **Women's Wear Daily** (Aug. 2, 1999): 16.

Hicks, Eric. "Busy signal: Profits and an ambitious new competitor mark the transition of cellular phones from yuppie toy to mainstream tool." **The Halifax Daily News** (Nov. 21, 1994): 19.

Himowitz, Michael J. "A Cellular Phone That's Ready to Hit the Road." **Fortune** (Oct. 26, 1998): 274.

Houpt, Simon. "Wrong number." **The Globe and Mail** (Oct. 16, 1999): C3.

Houpt, Simon. "From high tech to haute couture: Nokia's 8800 is this season's chic way to speak." **The Globe and Mail** (July 24, 1999): C1, C9.

Howard, Chris. "Bay Street unplugged: Can you remember a day when something hasn't beeped at you?" **Canadian Business** (Oct. 30, 1998): 155.

Howe, Peter J. "The Crowded Airwaves: The electronic devices we love are filling the air with stray signals." **Fortune**, vol. 135, issue 6 (Mar. 31, 1997): 133-134.

Humphreys, Adrian. "A cellular explosion: 'Fastest-growing consumer product in history.'" **The Spectator** (Hamilton) (Apr. 18, 1997): A1.

Ingram, Matthew. "Wireless: the new frontier." **The Globe and Mail** (Feb. 5, 2000): N6.

Intini, John. "Cell phone socialites; teens just can't miss that call." **The Toronto Sun** (Aug. 22, 1996): SH4 (supplement).

Intini, John. "Portables used for image, safety." **The Toronto Sun** (Aug. 22, 1996): SH4 (supplement).

Jackman, Philip. "Big numbers of wireless phones." **The Globe and Mail** (Sept. 29, 1998): <http://news.globetechnology.com>

Jennings, Sarah. "A Shot in the Dark: Big money is still backing big satellite launches, even though failures and bankruptcies are on the rise." **Report on Business Magazine**, vol. 16, no. 6 (Dec. 1999): 94-95.

Johnson, Ian. "Are we ready to cut the cord? Questions about potential health hazards of wireless devices are hampering sales." **Computer Dealer News**, vol. 14, no. 16 (Apr. 27, 1998): 18.

Jones, Carol. "Superconductors to end cell phone noise." **The Financial Post** (Sept. 24, 1996) 69.

Kantra Kirschner, Suzanne. "Power Phones: What do you get when you merge a cellphone and a personal organizer? One pretty smart phone." **Popular Science: What's New** (Special issue: "250 Great Things You Can't Live Without," Fall 1999): 35-37.

Kapica, Jack. "Nomad takes music to new heights." **The Globe and Mail** (Aug. 14, 1999): C6.

Knapp, Shelley. "Digital PCS technology: What's all the buzz—and who are the players?" **Calgary Herald** (June 23, 1998): TL13.

Lamirand, Rod. "Unplugged...new world of two-way wireless communication." **BC Business**, vol. 25, no. 10 (Oct. 1997): 31, 33.

Landers, Ann. "How rude! Woman takes calls in theatre." **The Edmonton Journal** (Nov. 5, 1996): B7.

Lane, Rob. "Trade Secrets: So you want to be James Bond, drink Vodka Martinis and enjoy the company of beautiful women? Just make sure you're carrying the right mobile phone." **Mobile Choice**, issue 34 (Sept. 1999): 10-11.

LaPorte, Donna. "Going cycling? Try to leave your cell phone behind." **The Toronto Star** (Apr. 6, 1996): H2.

Lazaruk, Susan. "Newcomer is the yappiest: Digital cell phones, latest in wireless technology, may be the best thing since Alexander Graham's bell." **The Province** (Vancouver), final ed. (July 20, 1997): A42.

Leiper, Jeff. "Increasingly crowded airwaves may be hazardous." **Silicon Valley North**, vol. 2, no. 5 (Jul. 1998): 29.

Lima, Paul. "Welcome to age of perpetual communication: First up, a cell phone that you can 'wear'." **The Toronto Star** (June 6, 1998): H4.

Lima, Paul. "Jury's still out on possible cell phone risks." **The Toronto Star** (May 14, 1998): K12.

Lima, Paul. "Dispatch dilemma for wireless 911." **Technology in Government**, vol. 5, no. 3 (Mar. 1998): 1, 4.

Lipsett, Elizabeth. "Those cell phone users drive me off the rails." **Ottawa Citizen** (Nov. 21, 1997): A16.

Maffin, Tod. "Taking control of our electronic lives." **Vancouver Sun** (Dec. 30, 1998): E1.

Mahar, Maggie. "It's Italy calling: snob appeal is just one reason to buy into Southern European phone companies." **Canadian Business**, vol. 71, no. 6 (Apr. 10, 1998): 26, 28.

Mandel, Charles. "Hard cell: Wireless phones have been getting a bad rap. But one supplier is fighting back with a dramatic message: they actually save lives." **Canadian Business**, vol. 72, no. 15 (Sept. 24, 1999): 16.

Marbach, Bill. "Smart Talk: The new generation of intelligent telephones." **Fortune** (Winter 1998 Technology Buyer's Guide): 159-162.

Marron, Kevin. "Find your way through the PCS maze." **The Globe and Mail** (Mar. 27, 1998): <http://globetechnology.com>

Marron, Kevin. "Cell service earns assist on Stojko medal: Rent Express helped mobile-phone-using athletes skate around incompatible Japanese technology." **The Globe and Mail** (Mar. 10, 1998): <http://globetechnology.com>

Marron, Kevin. "From the lab to the market." **The Globe and Mail** (Mar. 10, 1998): <http://news.globetechnology.com>

Marshall, Trevor. "PCS...Two Years Later." **Wireless Telecom**, vol. 16, no. 2 (2nd Quarter 1998). <http://www.cwta.ca/pubs/q298.htm>

Maugh II, Thomas H. "Drivers Dialing for Danger with Cellular Phones." **Los Angeles Times** (Feb. 13, 1997): A1.

McGovern, Sheila. "Cantel to sell cell phones in malls: Deal with Radio Shack aimed at average consumer." **The Gazette** (Montreal) (Apr. 25, 1996): H3.

McKague, Anne. "Technological progress has failed us miserably: the tools that were supposed to make us all more productive has doubled and tripled our work." **Computing Canada**, vol. 24, no. 25 (July 6, 1998): 11.

McLaren, Leah. "I was a cellphone-earset jerk." **The Globe and Mail** (Oct. 16, 1999): C3.

McNish, Jacquie and Andrew Willis. "Bold BCE bids for CTV." **The Globe and Mail** (Feb. 26, 2000): A1, A8.

Menezes, Joaquim. "Wireless market about to explode." **Computing Canada**, vol. 25, no. 8 (Feb. 26, 1999): 19, 20.

- Menzies, David. "Calling all cars: looking for a set of laws governing cell phones on the road? How about calling on common sense?" **Financial Post Daily**, vol. 11, no. 131 (Sept. 18, 1998): D3.
- Mills, Lara. "Bell pushes Web-access cellphones." **Marketing Magazine**, vol. 105, no. 7 (Feb. 21, 2000): 2.
- Mills, Lara. "Life, Unplugged." **Marketing Magazine**, vol. 104, no. 26 (July 5, 1999): 14.
- Mills, Lara. "The New Über Telcos." **Marketing Magazine**, vol. 104, no. 26 (July 5, 1999): 15.
- Mills, Lara. "Clear Connection." **Marketing Magazine** (Dec. 14, 1998): 15-17.
- Mills, Lara. "PCS phones get dressed for holidays." **Marketing Magazine** (Oct. 19, 1998): 3.
- Mills, Lara. "Mobile phone marketers get simple." **Marketing Magazine**, vol. 102, no. 35 (Sept. 22, 1997): 3.
- Mills, Lara. "PCS battle brings out big ad spenders." **Marketing Magazine**, vol. 102, no. 24 (June 23, 1997): 3.
- Morgenstern, Steve. "Tough call: New digital options have made buying cellular service more complicated. Here's how to cut through the static and get the best deal." **Working Woman**, vol. 23, issue 5 (May 1998): 82-87.
- Murphy, Rex. Review of **A Short History of Rudeness: Manners, Morals, and Misbehavior in Modern America**, by Mark Caldwell. **The Globe and Mail Books** (Oct. 23, 1999): D7.
- Norton, Kate. "Calls rise for global cell phone standard." **Financial Post** (National Post), vol. 1, no. 71 (Jan. 19, 1999): C10.
- O'Neill, Jay. "Cabbie faces charge he acted as cab broker." **The Edmonton Journal** (Dec. 12, 1996): B3.
- Okoński, Raymond. "In the beginning: Mobile phones have come a long way since they were launched in 1985." **Mobile Choice**, issue 31 (June 1999): 20-22.
- Patton, Phil. "The Walkman turns 20." **The Globe and Mail** (Aug. 7, 1999): C5.
- Perkins, Dave. "Cell phones tainting golf's aesthetic beauty." **The Toronto Star** (Oct. 17, 1998): C12.
- Piraro, Dan. "Bizarro." Cartoon. **The Globe and Mail** (Sept. 25, 1999): E6.
- Posner, Michael. "Breaking through the information overload." **The Globe and Mail** (Apr. 17, 1999): C3.

Powell, Johanna. "Technology makes work a movable feast." **Financial Post Daily**, vol. 10, no. 63 (May 23, 1997): OT2.

Powell, Johanna. "Small is Really Big: Research found consumers want smaller phones – so Motorola obliged." **The Financial Post** (Aug. 10, 1996): W8.

Pritchard, Chris. "Brain tumor increase linked to cell phone use." **Medical Post**, vol. 34, no. 5 (Feb. 3, 1998): 27.

Ramsay, Laura. "Vancouver fight won, tower opponents take on bureaucrats." **The Globe and Mail** (Oct. 13, 1998): <http://news.globetechnology.com>

Randolph, Mike. "High-tech call of the wild." **National Post** (Dec. 7, 1998): B12.

Robert, English. "What do you do when you're really lost? New tracking system a reassuring companion when you're out on the proverbial dark and lonely road." **Financial Post Daily**, vol. 11, no. 12 (Feb. 20, 1998): A2.

Roth, Daniel. "Attention Cell Phone Shoppers." **Fortune**, vol. 138, issue 5 (Sept. 7, 1998): 146-150.

Ryan, Bramwell. "Bright new phones." **Manitoba Business**, vol. 19, no. 8 (Oct. 1997): 18, 21.

Sadava, Mike. "No cause for 'cell-abrasion'; A little etiquette can prevent cell phone users from turning your night on the town into a nightmare." **Edmonton Journal**, final ed. (Jan. 22, 1997): A1.

Sandoval, Ricardo. "Mexico's cell phones sales ring up big profits: Latin Americans leap-frog into high-tech boom." **The Toronto Star** (Oct. 25, 1997): E8.

Schiesel, Seth. "Still a long way from home." **Financial Post** (Feb. 5, 2000): D11.

Sciadas, G. and D. Chodorowicz. "The cellular telephone industry: birth, evolution and prospects." **Canadian Economic Observer**, vol. 11, no. 8 (Aug. 1998): 3.1 - 3.16.

Shaw, Gillian. "Hard Cell: Competition and technology give the consumer an array of choices that puts mobile phones within reach." **Vancouver Sun** (Feb. 19, 1999): F4.

Shaw, Gillian. "Digital Dilemma: Technological advancement has made choice between analog and new digital phones daunting for consumers." **The Vancouver Sun** (Jan. 26, 1998): D2.

Shaw, Gillian. "Competition shortens wireless contracts." **Vancouver Sun**, final ed. (Dec. 4, 1997): D1.

Sherman, Mark. "Furore over intercepted call overshadows ethics issue." **Vancouver Sun**, final ed. (Jan. 18, 1997): A14.

Siegfried, Tom. "Transistor grows old but teaches a few lessons." **The Edmonton Journal**, final ed. (Dec. 12, 1997): H12.

Stackhouse, John. "Bell Trips on India's Hang-ups: What was thought to be a lucrative cellphone market has not panned out for the Canadian company." **The Globe and Mail** (Mar. 2, 1998): <http://news.globetechnology.com>

Steel, Suzanne. "Product placement: some see disguised advertising, while others see humour." **Financial Post** (National Post), vol. 1, no. 77 (Jan. 26, 1999): C5.

Steffenhagen, Janet. "Cell phones get tentative okay from experts." **Vancouver Sun** (May 18, 1999): A6.

Surtees, Lawrence. "Is the wired home phone heading for extinction?" **The Globe and Mail** (Feb. 19, 2000): A1, A15.

Surtees, Lawrence. "Bell to pay \$1.6-billion in BCE Mobile buyout: All-cash deal will allow country's biggest phone company to merge wireline and wireless business, enhance marketing." **The Globe and Mail** (July 31, 1999): B1, B4.

Surtees, Lawrence. "Rogers and Cantel beat expectations: But companies say expenditures will keep them in the red for several years to come." **The Globe and Mail** (July 23, 1999): <http://news.globetechnology.com>

Surtees, Lawrence. "Phone companies set to draw new battle lines: Analysts foresee a 'wild and astounding' 12 months as restructuring of \$16-billion-a-year sector continues." **The Globe and Mail** (Jan. 1, 1999): <http://news.globetechnology.com>

Surtees, Lawrence and Tyler Hamilton. "Who's Kidding Who: Schools are banishing cellphones and pagers, but today's youth are still set to become the first to grow up wireless." **The Globe and Mail** (Sep. 24, 1998): <http://news.globetechnology.com>

Surtees, Lawrence. "Rogers offers new cell service: Phones aimed at the 'credit challenged.'" **The Globe and Mail** (May 22, 1998): <http://news.globetechnology.com>

Surtees, Lawrence. "Phone fight costs 800 jobs: Cantel cuts work force by 25%, takes \$378-million loss as digital services grab customers." **The Globe and Mail** (Feb. 6, 1998): <http://news.globetechnology.com>

Surtees, Lawrence. "PCS eroding cellphone customer base: Digital system flourishes in Canada." **The Globe and Mail** (Jan. 9, 1998): <http://news.globetechnology.com>

Swift, Allan. "Wireless companies await bonanza in booming market." **The Spectator** (Hamilton) (Oct. 24, 1996): C10.

Tausz, Andrew. "Accessories after the fact: you've just bought a cell phone. Now, you want to make it suit your needs. If you're gadget happy, you'll love these." **Financial Post**, vol. 91, no. 41 (Oct. 12, 1998): R31.

Tausz, Andrew and Ann Kerr. "Throwing off the tyranny of phones." **Financial Post** (Aug. 1, 1998): R27.

Ten Kate, Nancy. "Cell Phone Attitudes." **American Demographics**, vol. 19, issue 6 (June 1997): 32.

Thompson, Clive. "Phone Phobia." **Report on Business Magazine**, vol. 15, no. 9 (Mar. 1999): 95-96.

Thompson, Elizabeth. "Death prompts call for probe." **The Gazette** (Montreal) (Jan. 20, 2000): A1, A2.

Turner, Bob. "How to Get Unwired." **Money**, vol. 27, issue 4 (Apr. 1998): 146-152.

Turner, Chris. "PalmPilots are for wimps: why carry a computer when you can wear one?" **Canadian Business**, vol. 72, no. 4 (Mar. 12, 1999): 76-78.

Wagner, Betsy. "Hang up that cell phone" [*driving while using a cell phone*]. **U.S. News & World Report**, vol. 122, no. 7 (Feb. 24, 1997): 15.

Wagner, Vit. "Will you get off the phone? In matter of bad theatre manners, it isn't so much the noise that annoys as it is the source of the distraction." **The Toronto Star** (Dec. 14, 1996): G1.

Whittaker, Stephanie. "The Ant That Toted Away a Big Market Share." **Marketing Magazine** (Nov. 18, 1998): 23.

Willis, Andrew and Shawn McCarthy. "Ottawa to ignite takeover frenzy in cellphone sector." **The Globe and Mail** (Jan. 29, 1999): <http://news.globetechnology.com>

Won, Linda. "'Beeps' can prove bleep-bleep annoying." **The Vancouver Sun** (Aug. 6, 1996): A2.

Zalud, Bill. "Tracking People in Real-Time." **Security**, vol. 35, issue 7 (July 1998): 4.

Endnotes

- ¹ Brenda Bouw. "The cell-phone turn off: Nobody likes the sound of someone else's cellular." **The Halifax Daily News**, 21 July 1996: 23.
- ² Ted Blackman. "Watch the Open, but leave cell phone home." **The Gazette (Montreal)** 31 Aug. 1997, final ed.: B1.
- ³ Chris Howard. "Bay Street Unplugged: Can you remember a day when something hasn't beeped at you?" **Canadian Business**, 30 Oct. 1998: 155.
- ⁴ "Bishop orders priests to leave their cell phones outside church walls." **The Halifax Daily News**, 26 Dec. 1994: 51.
- ⁵ "Cell Your World." **Shift Magazine** (Nov. 1998): 21.
- ⁶ Steve Gold. "First Mobile Phone Use on Plane Prosecution Case Begins." **Newsbyte**, 29 June 1999: <http://www.newsbyte.com> and "Man jailed for not turning phone off on plane." **The Globe and Mail**, 22 July 1999: <http://news.globetechnology.com>.
- ⁷ Lawrence Surtees and Tyler Hamilton. "Who's Kidding Who: Schools are banishing cellphones and pagers, but today's youth are still set to become the first to grow up wireless." **The Globe and Mail**, 24 Sep. 1998: <http://globetechnology.com>.
- ⁸ "Barbie sets up shop at the Bay." **Ottawa Citizen**, 12 Oct. 1997: A4.
- ⁹ "Phonoholics: Cellular addiction can be hazardous to your health." **Calgary Herald**, 14 July 1997, final ed.: A6.
- ¹⁰ Dan Piraro, "Bizarro," cartoon, **The Globe and Mail**, 25 Sept. 1999: E6.
- ¹¹ Paul du Gay, Stuart Hall, Linda Janes, Hugh McKay, and Keith Negus. **Doing Cultural Studies: The Story of the Sony Walkman** (London & New York: Routledge, 1994): 8.
- ¹² John Intini. "Cell phone socialites: teens just can't miss that call." **The Toronto Sun**, 22 Aug. 1996, supplement: SH4.
- ¹³ "Phonoholics" (July 1997): A6.
- ¹⁴ Brenda Bouw (1996): 23.
- ¹⁵ "Phonoholics" (July 1997): A6.
- ¹⁶ Adrian Humphreys. "A cellular explosion: 'Fastest-growing consumer product in history.'" **The Spectator (Hamilton)** 18 Apr. 1997: A1.
- ¹⁷ David Robinson and Rick Nadeau (Decima Research Inc.). **Usage and Attitudes Toward Wireless Communications in Canada**. (Ottawa: Canadian Wireless Telecommunications Association, May 1999):5.
- ¹⁸ Paul du Gay (1994):117.
- ¹⁹ "First cellphones, then air freshener?" **The Globe and Mail**, 24 Sept. 1998: <http://news.globetechnology.com>
- ²⁰ Adrian Humphreys (18 Apr. 1997):A1.
- ²¹ Erik Heinrich. "Cellular confusion: picking a phone package can be a headache." **Maclean's** (vol. 111, no. 17) 27 Apr. 1998: 16.
- ²² David Robinson and Rick Nadeau (May 1999):4.
- ²³ Canadian Wireless Telecommunications Association president, Roger Piorier, quoted in "A cellular explosion: 'Fastest-growing consumer product in history,'" in Adrian Humphreys (Apr. 1997): A1.
- ²⁴ Joaquim, Menezes. "Wireless market about to explode." **Computing Canada** (vol. 25, no. 8) 26 Feb. 1999: 19.
- ²⁵ Derek DeCloet. "No strings attached: in the 90s it was cheap computing. The next decade will be defined by the arrival of all things wireless." **Canadian Business**, June 25, 1999: 187.
- ²⁶ K.E. Brown. **PCS and the Big Picture: A Wireless Technology Overview** (A Report for the Information Technology Industry Branch of Industry Canada) Ottawa, Apr. 8, 1997: 7.
- ²⁷ Paul du Gay (1994):12.
- ²⁸ Raymond Williams. "Basic Concepts: Culture." **Marxism and Literature**. (Oxford, Oxford University Press, 1994):13.
- ²⁹ Ian Frazier. "Dearly Disconnected: A tribute to one of the great, heretofore unmourned casualties of the digital revolution – the pay phone." **Mother Jones** (Jan/Feb 2000): 63.
- ³⁰ This 80% is based on interviews with 606 wireless phone owners. David Robinson and Rick Nadeau (1999):30.
- ³¹ Jerry Gladman. "One serious hang-up; some cell phone users should be charged with careless drivelling." **The Toronto Sun**, Apr. 6, 1996, final ed.: 29.
- ³² K.E. Brown (Apr. 8, 1997): III.

- ³³ "Universal access in the context of cellular has two components. The first is that the cellular network be built to ensure geographic coverage: the technical ability to obtain the signal needed to complete a call must be present. The second is that use of the system be affordable: the cost of the cellular phone and the cellular service must be within reach." This definition of universal access is by Rachel E. Schwartz. "Cellular." *Wireless Communications in Developing Countries: Cellular and Satellite Systems* (Artech House, Boston & London, 1996): 99.
- ³⁴ See Robert Cribb. "An overlay of dialing confusion." *The Toronto Star* (Sept. 4, 1999): E1
- ³⁵ Robert Cribb (Sept. 4, 1999):E1.
- ³⁶ Simon Houpt. "Wrong number." *The Globe and Mail* (Oct. 16, 1999): C3.
- ³⁷ Paul du Gay (1994):3.
- ³⁸ Mike Boone. "Don't bet Miss Manners to silence cell phones." *The Gazette* (Montreal) 27 Dec. 1997, final ed.: B5.
- ³⁹ Paul du Gay (1994):113.
- ⁴⁰ Paul du Gay (1994):11.
- ⁴¹ This definition of "convergence" is by K.E. Brown (Apr. 8, 1997): 9.
- ⁴² Brenda Bouw (Jul. 21, 1996): 23.
- ⁴³ Leah McLaren. "I was a cellphone-earset jerk." *The Globe and Mail* (Oct. 16, 1999): C3.
- ⁴⁴ Maugh II, Thomas H. "Drivers Dialing for Danger with Cellular Phones." *Los Angeles Times* (Feb. 13, 1997):A1.
- ⁴⁵ "Cell phones banned at gas pumps: Electronic impulses could ignite fumes, Exxon worries." *The Gazette* (Montreal) Jan. 15, 1999, final ed.: F6.
- ⁴⁶ See "Cell phones banned at gas pumps (Jan. 15, 1999): F6.
- ⁴⁷ DeCloet, Derek. "Towers of terror: anti-cellular hysteria threatens the expansion of the wireless phone industry." *British Columbia Report*, vol. 9, no. 52 (Nov. 2, 1998): 47.
- ⁴⁸ Pritchard, Chris. "Brain tumor increase linked to cell phone use." *Medical Post*, vol. 34, no. 5 (Feb. 3, 1998): 27.
- ⁴⁹ Charles Mandel. "Hard cell: Wireless phones have been getting a bad rap. But one supplier is fighting back with a dramatic message: they actually save lives." *Canadian Business* (vol. 72, no. 15) Sept. 24, 1999: 16.
- ⁵⁰ Laura Ramsay. "Vancouver fight won, tower opponents take on bureaucrats." *The Globe and Mail* (Oct. 13, 1998): <http://news.globetechnology.com>.
- ⁵¹ David Robinson and Rick Nadeau (May 1999):13.
- ⁵² Lara Mills. "The New Über Telcos." *Marketing Magazine* (vol. 104, no. 26) July 5, 1999: 15.
- ⁵³ Doreen Massey. "Places and Their Pasts." *History Workshop Journal* (issue 39) 1995: 186.
- ⁵⁴ Elizabeth Lipsett. "Those cell phone users drive me off the rails." *Ottawa Citizen*, 21 Nov. 1997: A16.
- ⁵⁵ Paul du Gay (1994):5. The authors use this phrase to describe how we came to understand the Walkman.
- ⁵⁶ Doreen Massey. "Power-geometry and a progressive sense of place." *Mapping the Futures: Local cultures, global change*. Eds. Jon Bird, Barry Curtis, Tim Putman, George Robertson and Lisa Tickner. (London & New York, Routledge, 1993):66.
- ⁵⁷ "Cell phone chatterbox." *Ottawa Citizen*, 10 Aug. 1997, final ed.: M13.
- ⁵⁸ Vicki Barnett. "Critics call for cell phone conduct code." *Calgary Herald*, 17 Mar. 1997, final ed.: B1.
- ⁵⁹ Marty Allor. "Locating Cultural Activity: The 'Main' as Chronotope and Heterotopia." *Topia* 42 (1998): 45.
- ⁶⁰ Paul du Gay (1994):14.
- ⁶¹ Patrick Carrey (Apr. 30, 1999): <http://strategis.ic.gc.ca/SSG/sf01782e.html>
- ⁶² The "chain of meaning" exists when "meanings are extended from something we already know to something new." Paul du Day (1994):24.
- ⁶³ Charles Mandel (Sep. 24, 1999): 16.
- ⁶⁴ David Robinson and Rick Nadeau (May 1999):30.
- ⁶⁵ Lisa Dempster. "Cell phone fever." *The Calgary Herald*, Mar. 24, 1996: A3.
- ⁶⁶ "The Merchants' Tale." *Mobile Choice* (issue 34) Sept. 1999: 36.
- ⁶⁷ Paul du Gay (1994): 85.
- ⁶⁸ Paul du Gay (1994):16.
- ⁶⁹ "Cell phone obsession in Israel." Reported by Anna Maria Tremonti. Hosted by Alison Smith. *The National*. CBC-TV. Nov. 22, 1996.
- ⁷⁰ Paul du Gay (1994): 3.
- ⁷¹ Paul du Gay (1994):17.
- ⁷² Chris Howard (Oct. 30, 1998): 155.

-
- ⁷³ From "Cell Your World" (Nov. 1996): 21.
- ⁷⁴ Elizabeth Thompson. "Death prompts call for probe." *The Gazette* (Montreal), Jan. 20, 2000: A1.
- ⁷⁵ Raymond Williams. "The technology and the society." *Television: Technology and Cultural Form*. (London, Fontana: 1974): 20.
- ⁷⁶ Canadian Wireless Telecommunications Association. "Industry Facts and Statistics." *Wireless Facts* (June 1999): <http://www.cwta.ca/indguide/facts.htm>
- ⁷⁷ K.E. Brown (Apr. 1997): 44.
- ⁷⁸ Paul du Gay (1994): 90.
- ⁷⁹ Jack Branswell. "Catch-up Time for Cell Phones." *Marketing Magazine* (Nov. 2, 1998): 18.
- ⁸⁰ CWTA (June 1999): <http://www.cwta.ca/indguide/facts.htm>
- ⁸¹ Rod Lamirand. "Unplugged... new world of two-way wireless communication." *BC Business* (vol. 25, no. 10) Oct 1997: 31.
- ⁸² These examples of convergence are adapted from K.E. Brown (1997): 9.
- ⁸³ Stephanie Whittaker. "The Ant That Toted Away a Big Market Share." *Marketing Magazine* (Nov. 18, 1998): 23.
- ⁸⁴ Bobbi Bulmer. "Telco barrage: sometimes it seems like there's nothing but phone ads on TV." *Marketing Magazine*, vol. 102, no. 39 (Oct. 20, 1997): 22.
- ⁸⁵ Lara Mills (July 5, 1999): 15.
- ⁸⁶ Paul du Gay (1994): 25.
- ⁸⁷ Dick Hebdige. "Object as Image: the Italian Scooter Cycle." *Hiding in the Light: On Images and Things*. Routledge, London & New York, 1988: 80.
- ⁸⁸ Clive Thompson. "Phone Phobia." *Report on Business Magazine*, vol. 15, no. 9 (Mar. 1999): 95.
- ⁸⁹ Rob Lane. "Trade Secrets: So you want to be James Bond, drink Vodka Martinis and enjoy the company of beautiful women? Just make sure you're carrying the right mobile phone." *Mobile Choice*, issue 34 (Sept. 1999): 10.
- ⁹⁰ Suzanne Steel. "Product placement: some see disguised advertising, while others see humour." *Financial Post* (National Post), vol. 1, no. 77 (Jan. 26, 1999): C5.
- ⁹¹ John Colebourn. "Help for women at any time: Cell phones to aid those at risk of violence." *The Province* (Vancouver), final ed. (Nov. 10, 1997): A2.
- ⁹² "Company pulls ad showing phone offer to Jesus." *The Ottawa Citizen*, final ed. (Dec. 5, 1998): A3.
- ⁹³ "Fido's Phone Went With Him Everywhere." *The Province* (Vancouver) (Jan. 4, 1998): A31.
- ⁹⁴ Paul du Gay (1994): 102.
- ⁹⁵ Eric Hicks. "Busy signal: Profits and an ambitious new competitor mark the transition of cellular phones from yuppie toy to mainstream tool." *The Halifax Daily News* (Nov. 21, 1994): 19.
- ⁹⁶ Daniel Roth. "Attention Cell Phone Shoppers." *Fortune*, vol. 138, issue 5 (Sept. 7, 1998): 147.
- ⁹⁷ Lara Mills. "Life, Unplugged." *Marketing Magazine*, vol. 104, no. 26 (July 5, 1999): 14.
- ⁹⁸ Rod Lamirand (Oct. 1997): 31.
- ⁹⁹ The term "network externalities" is used in Peter Brimelow. "The Silent Boom: PCs and cell phones have spread faster than their forerunners, radios and telephones." *FORBES*, vol. 160, issue 1 (July 7, 1997): 170.
- ¹⁰⁰ Tyler Hamilton. "Wireless data companies ride tidal wave of investor interest." *The Globe and Mail* (Feb. 5, 2000): B11.
- ¹⁰¹ K.E. Brown (Apr. 1997): 9.
- ¹⁰² Sarah Jennings. "A Shot in the Dark: Big money is still backing big satellite launches, even though failures and bankruptcies are on the rise." *Report on Business Magazine*, vol. 16, no. 6 (Dec. 1999): 95.
- ¹⁰³ Sarah Jennings (Dec. 1999): 95.
- ¹⁰⁴ Sarah Jennings (Dec. 1999): 95.
- ¹⁰⁵ Philip DeMont. "Microcell raises \$814M for phone network." *Financial Post* (Jul. 5, 1996): 7.
- ¹⁰⁶ Bobbi Bulmer (Oct. 20, 1997): 22.
- ¹⁰⁷ K.E. Brown (Apr. 1997): 45.
- ¹⁰⁸ Ricardo Sandoval. "Mexico's cell phone sales ring up big profits: Latin Americans leap-frog into high-tech boom." *The Toronto Star* (Oct. 25, 1997): E8.
- ¹⁰⁹ Paul du Gay (1994): 85.
- ¹¹⁰ Lara Mills (July 5, 1999): 15.
- ¹¹¹ Wendy Cox. "Cell phones become trendy safeguard for teens and parents." *The Edmonton Journal* (Oct. 12, 1996): B4.

- ¹¹² Gillian Shaw. "Hard Cell: Competition and technology give the consumer an array of choices that puts mobile phones within reach." *Vancouver Sun* (Feb. 19, 1999): F4.
- ¹¹³ Mark Evans. "Cellphone firms jump into prepaid calling." *The Globe and Mail* (Sep. 22, 1998): <http://news.globetechnology.com>.
- ¹¹⁴ Robert Cribb. "Canadians love cash-on-barrel phone deals: But experts say paying in advance is too expensive." *The Toronto Star* (Jan. 9, 1999): E1.
- ¹¹⁵ Rob Lane (Sep. 1999): 10.
- ¹¹⁶ Lawrence Surtees and Tyler Hamilton (Sep. 24, 1998): <http://news.globetechnology.com>.
- ¹¹⁷ Ryan Cromb. "Schools in cell phone sales plan." *The Edmonton Journal* (Dec. 12, 1996): B2.
- ¹¹⁸ Mark Evans. "Rogers Cantel going doo-to-door with Amway: Distribution deal unorthodox, but will see 100,000 representatives selling wireless phones." *The Globe and Mail* (Feb. 2, 1999): <http://news.globetechnology.com>.
- ¹¹⁹ Paul du Gay (1994): 91.
- ¹²⁰ "Cellphone couture: At this year's London Fashion Week, models and mobile phones made a connection." *Mobile Choice*, issue 29 (Apr. 1999): 12-13.
- ¹²¹ Ashley Ford. "Designer cell – just \$1000." *The Province* (Vancouver) (June 2, 1999): A27.
- ¹²² Ashley Ford (June 2, 1999): A27.
- ¹²³ Paul du Gay (1994): 66.
- ¹²⁴ Simon Houpt. "From high tech to haute couture: Nokia's 8800 series is this season's chic way to speak." *The Globe and Mail* (July 24, 1999): C9.
- ¹²⁵ Paul du Gay (1994): 69.
- ¹²⁶ Maggie Mahar. "It's Italy calling: snob appeal is just one reason to buy into Southern European phone companies." *Canadian Business*, vol. 71, no. 6 (Apr. 10, 1998): 26.
- ¹²⁷ Trish Crawford. "What a rush! In these fast times, being busy is the new measure of status." *The Toronto Star* (Nov. 20, 1999): M1, M2.
- ¹²⁸ Paul du Gay (1994): 104.
- ¹²⁹ Johanna Powell. "Small is Really Big: Research found consumers want smaller phones – so Motorola obliged." *The Financial Post* (Aug. 10, 1996): W8.
- ¹³⁰ Jean Fraser. "The talk of the town is small, sleek and cordless." *The Edmonton Journal*, final ed. (Feb. 27, 1997): F4.
- ¹³¹ Mike Boone (Dec. 27, 1997): B5.
- ¹³² "Watch-size cell phone developed." *The Calgary Herald*. (June 20, 1996): D3.
- ¹³³ "Cell Break." *The New York Times* (Dec. 27, 1998): section 9, p. 2.
- ¹³⁴ Rex Murphy. Review of *A Short History of Rudeness: Manners, Morals, and Misbehavior in Modern America*, by Mark Caldwell. *The Globe and Mail Books* (Oct. 23, 1999): D7.
- ¹³⁵ Paul du Gay (1994): 117.
- ¹³⁶ "Talk is Cheap: Canadian Wireless Rates Are Among the Lowest in the World." *Yankee Group in Canada Report*, vol. 3, no. 13 (June 1999) <http://www.yankeegroupcanada.com/Reports/Talkischeap.html>
- ¹³⁷ "AT & T to offer cell phones in vending machines." *The Calgary Herald* (Mar. 26, 1996): D1.
- ¹³⁸ Mike Bullard. "Person, Place, Thing." By Anthony Jenkins. *The Globe and Mail* (Jan. 30, 1999): D4.
- ¹³⁹ "Dial tones." *Calgary Herald*, final ed. (Mar. 22, 1997): D4.
- ¹⁴⁰ Brenda Bouw (Jul. 21, 1996): 23.
- ¹⁴¹ Chester Dawson. "Japan jumps on jamming obnoxious cell phones." *Vancouver Sun* (Aug. 27, 1998): F3.
- ¹⁴² Simon Houpt (Oct. 16, 1999): C3.
- ¹⁴³ Adrian Humphreys (Apr. 18, 1997): A1.
- ¹⁴⁴ Elizabeth Thompson (Jan. 20, 2000): A1.
- ¹⁴⁵ "Cell Phone Confidential." Produced by Jennifer Campbell. Hosted by Wendy Mesley. *UNDERcurrents*. CBC-TV. Sept. 30, 1997.
- ¹⁴⁶ "Putting your health on the line: The papers seem full of health scares associated with mobile phones these days. So what's really going on?" (May 1999): 20.
- ¹⁴⁷ "Putting your health on the line: The papers seem full of health scares associated with mobile phones these days. So what's really going on?" *Mobile Choice*, issue 30 (May 1999): 21.
- ¹⁴⁸ See "Cell phone cancer research hindered." *Computing Canada*, vol. 24, no. 4 (Feb. 2, 1998): 15.
- ¹⁴⁹ Paul du Gay (1994): 113.
- ¹⁵⁰ Paul du Gay (1994): 116.

-
- ¹⁵¹ Tim Putman. "Beyond the modern home: Shifting the parameters of residence." **Mapping the Futures: Local cultures, global change**. Eds. Jon Bird, Barry Curtis, Tim Putman, George Robertson and Lisa Tickner. Routledge, London & New York, 1993: 155.
- ¹⁵² Doreen Massey (1993): 67.
- ¹⁵³ Paul du Gay (1994): 114.
- ¹⁵⁴ Carolyn Marvin. **When Old Technologies Were New: Thinking About Electric Communication in the Late Nineteenth Century**. Oxford University Press, New York & Oxford (1988): 64.
- ¹⁵⁵ Joke Hermes. "Media, Meaning and Everyday Life." **Cultural Studies**, vol. 7, no. 3 (Oct. 1993): 504.
- ¹⁵⁶ Michel De Certeau. **The Practice of Everyday Life**. Trans. Steven F. Rendall. University of California Press, Berkeley (1984): 117.
- ¹⁵⁷ Michel De Certeau (1984): 99.
- ¹⁵⁸ Carolyn Marvin (1988): 233.
- ¹⁵⁹ Ian Frazier (Jan/Feb 2000): 62-63.
- ¹⁶⁰ Raymond Williams. "Communications, Technologies and Social Institutions." **What I Came to Say**. Hutchinson Radius, London (1989): 80.
- ¹⁶¹ Raymond Williams (1989): 81.
- ¹⁶² See Doreen Massey (1993): 67.
- ¹⁶³ Meaghan Morris, "Things to do with shopping centres." **The Cultural Studies Reader**, Simon During, ed., Routledge, London & New York, 1993: 306.
- ¹⁶⁴ Doreen Massey (1995): 188.
- ¹⁶⁵ Michel De Certeau (1984): xix.
- ¹⁶⁶ De Certeau (1984): xix.
- ¹⁶⁷ Paul du Gay (1994): 106.
- ¹⁶⁸ Paul du Gay (1994): 106.
- ¹⁶⁹ Elspeth Probyn. "Travels in the Postmodern: Making Sense of the Local." **Feminism/postmodernism**. Ed. Linda J. Nicholson. Routledge, London & New York: 181.
- ¹⁷⁰ Carolyn Marvin (1988): 233-234.
- ¹⁷¹ Tod Maffin. "Taking control of our electronic lives." **Vancouver Sun** (Dec., 30, 1998): E1.
- ¹⁷² Raymond Barglow (1994): 74.
- ¹⁷³ See Nancy Fraser, "Rethinking the public sphere: a contribution to the critique of actually existing democracy," in Bruce Robbins, Ed. **The Phantom Public Sphere**, Minneapolis, The University of Minnesota Press, 1993: 1-32.
- ¹⁷⁴ Doreen Massey (1993): 61.
- ¹⁷⁵ Doreen Massey (1993): 63.
- ¹⁷⁶ Raymond Williams (1974): 19.
- ¹⁷⁷ Richard Baum. "Britain Seen Making £10B on Mobile Licences: Five times some forecasts." **Financial Post** (Mar. 25, 2000): D11.
- ¹⁷⁸ Canadian Wireless Telecommunications Association (June 1999): <http://www.cwta.ca/indguide/facts.htm>
- ¹⁷⁹ Rachael E. Schwartz (1996): 6.
- ¹⁸⁰ Carolyn Marvin (1988): 194.

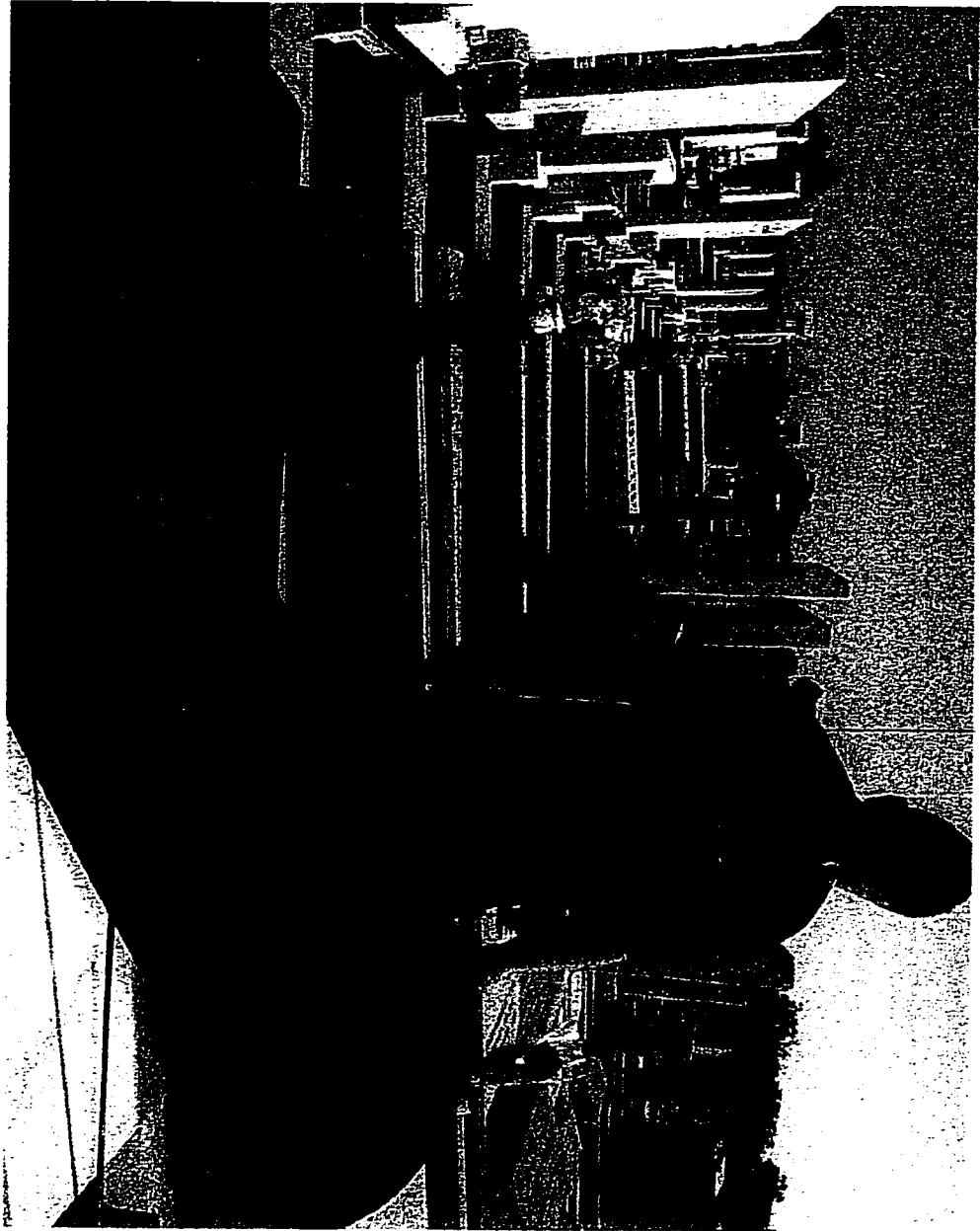
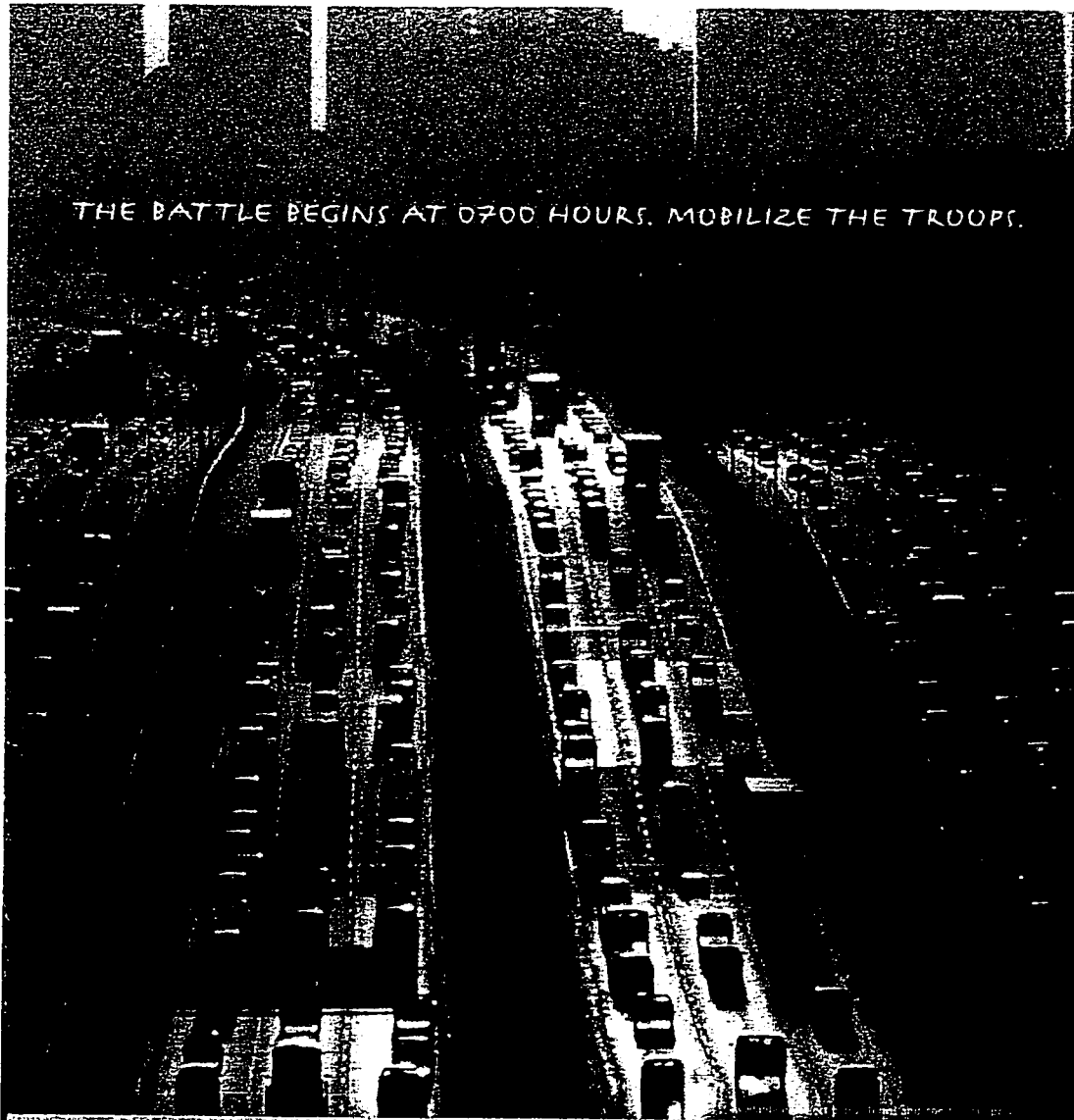


Figure 1: *Shift Magazine* (Nov. 1998): 23.



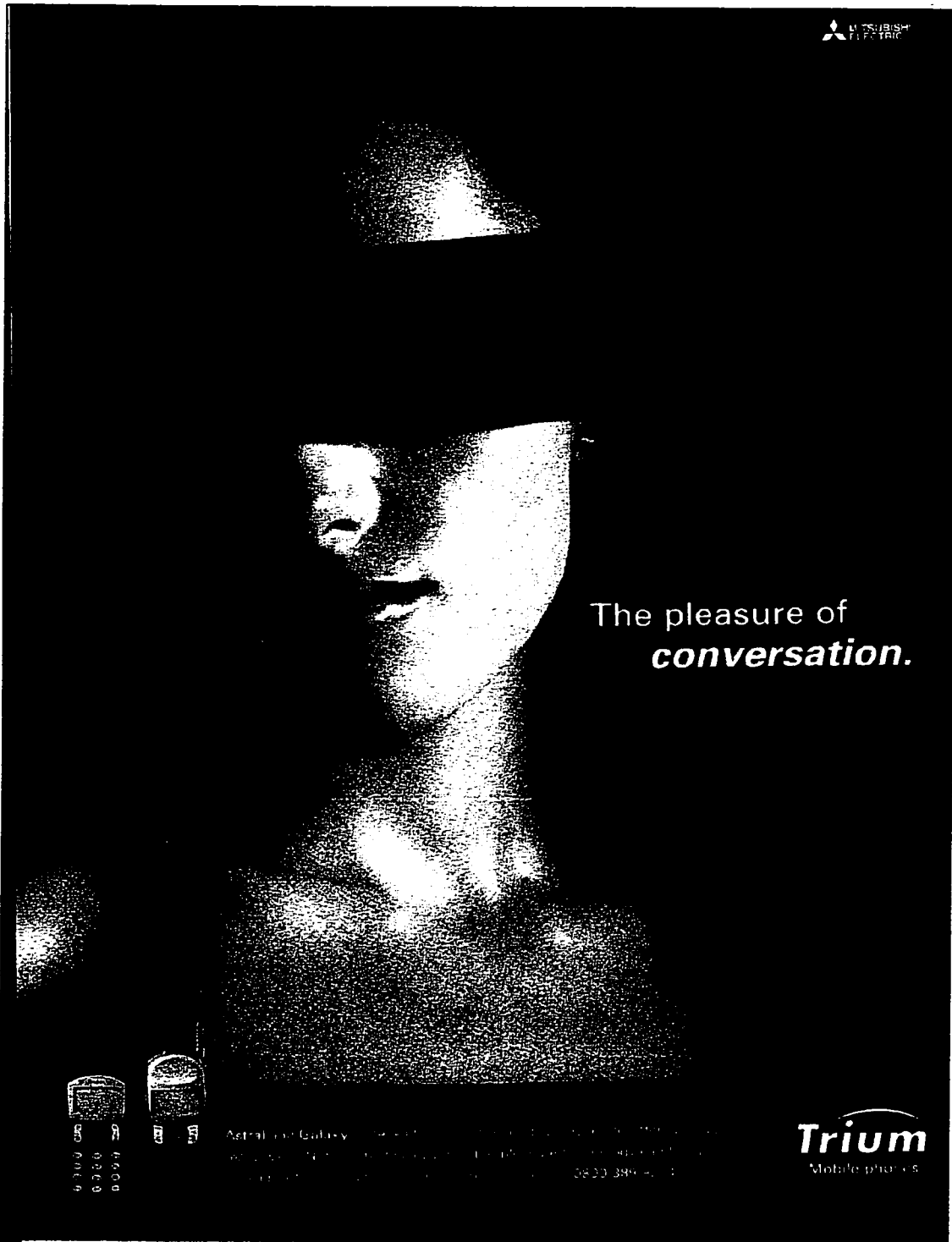
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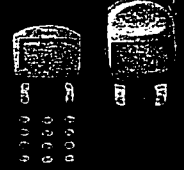
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Figure 2: *Canadian Business* (Sept. 25, 1998)



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Figure 3: *Mobile Choice* (Oct. 1999)

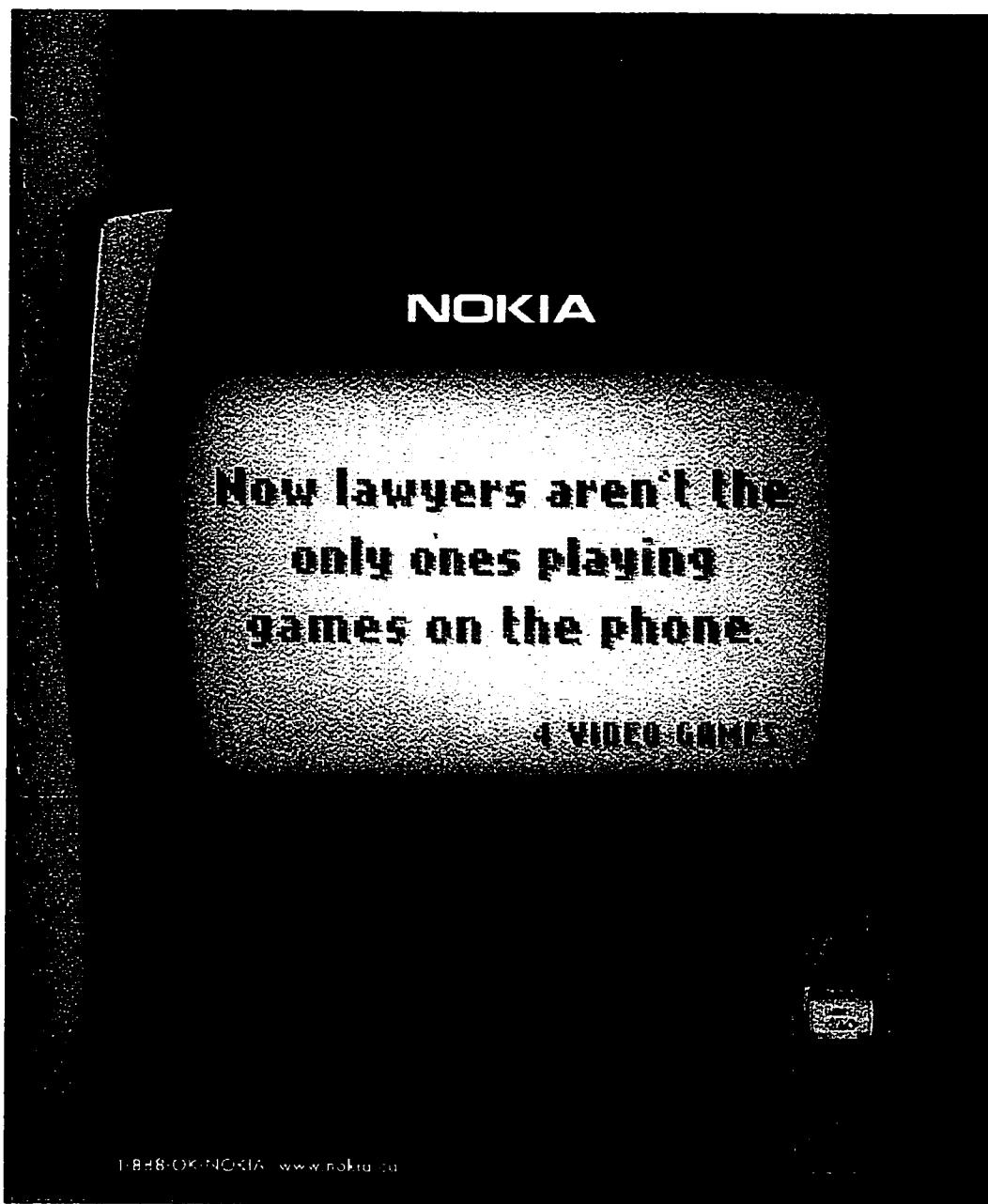


Figure 4: *Canadian Business* (Nov. 12, 1999)



Figure 5: *Men's Health* (Sept. 1998)

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Figure 6: *Wired* (Dec. 1998)

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Figure 7: *Shift Magazine* (Nov. 1999)



Figure 8: *The Globe and Mail* (July 24, 1999): C9.

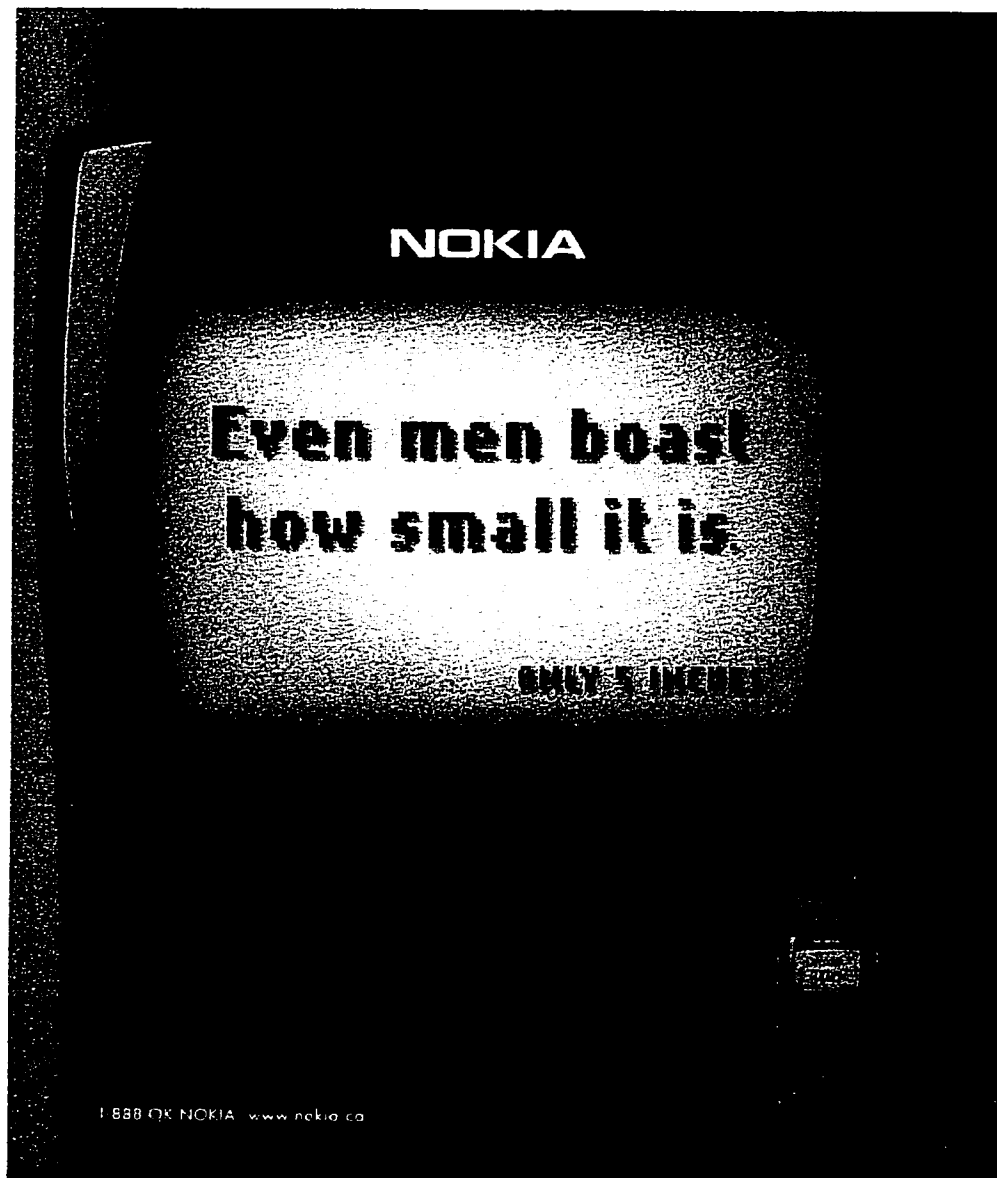
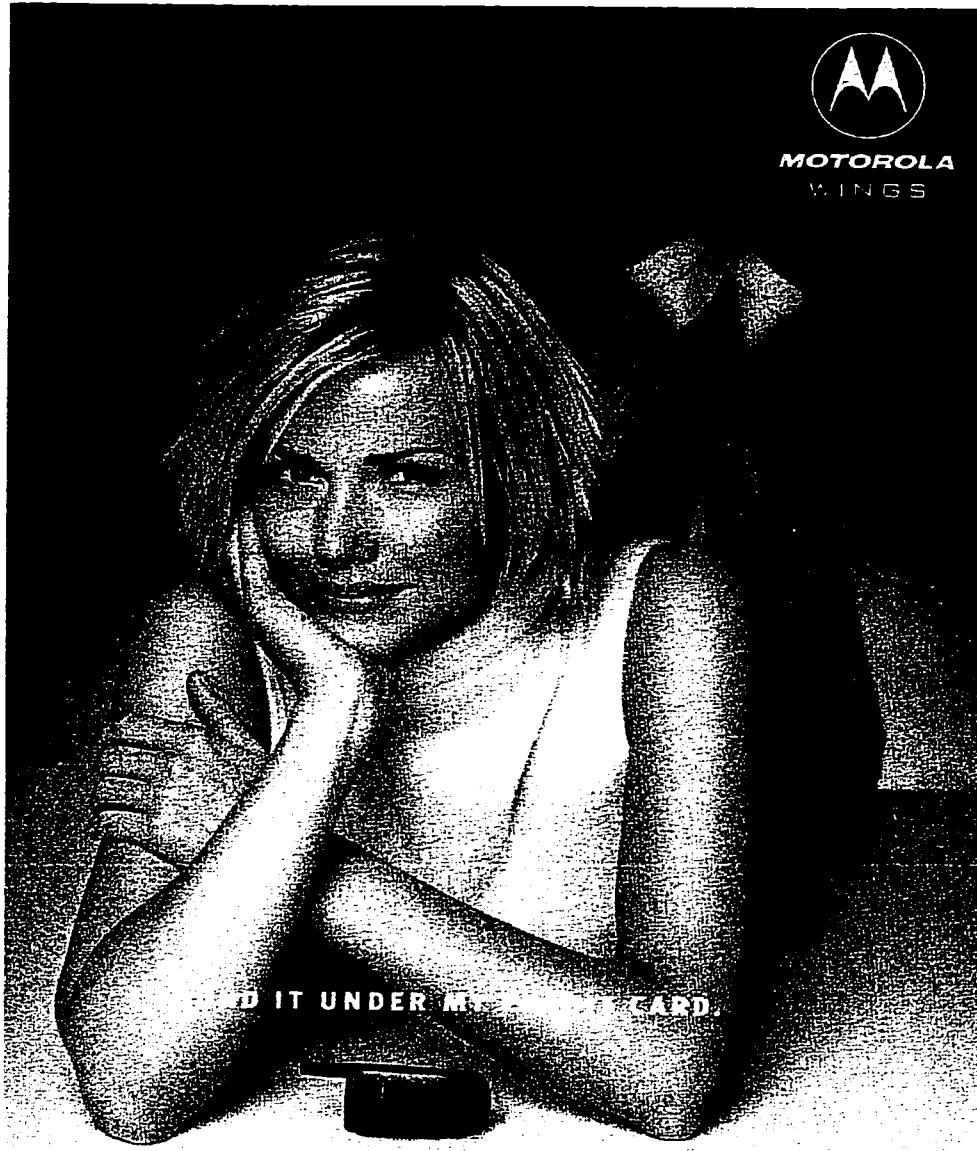


Figure 9: *Shift Magazine* (Nov. 1999)



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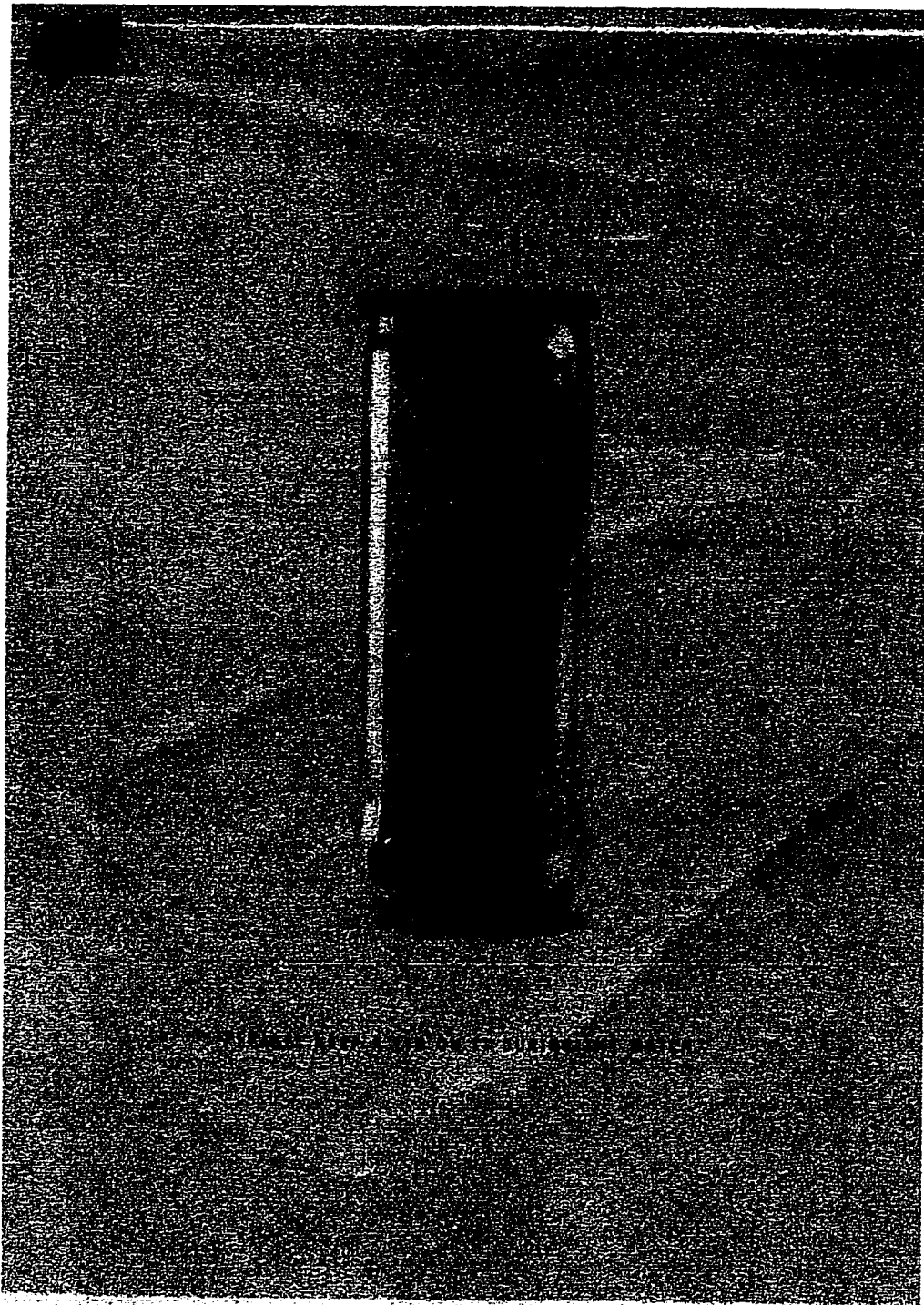
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Figure 10: *Mobile Choice* (Oct. 1999)



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Figure 11: *The Toronto Star* (Aug. 14, 1999): S8.