NEW MEDIA IN PLANNING: A CRITICAL REVIEW

by

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Abstract

Planning practice is changing. New media, which can be understood as Internet-enabled digital communications technologies—online social networks, online surveys, and online message boards, as examples—are increasingly used in public engagement processes. These new tools have been said to make public engagement more inclusive and less costly, as well as improve communication among those involved. Research, in the form of key informant interviews and a broad literature review, does not fully support these claims. Moreover, the increased use of new media is accompanied by a number of unforeseen negative effects. For these reasons, it is from now on the responsibility of planners: to understand the limitations of the new tools at their disposal, and to further contribute to this area of inquiry.
Preface

This thesis is an original, unpublished, independent work by the author.
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Introduction

We are in the midst of a communication and information revolution. Of that there is no doubt. Robert McChesney, *Communication Revolution* (2007, p. 3)

Twenty years ago, public input on municipal processes was for the most part obtained face-to-face. Most cities did not even have websites. Today, websites are the public’s most direct link to municipal activity, and new media—Internet-enabled digital communications technologies like online social networks, online surveys, and online message boards—are increasingly used to interact with citizens.

Two converging trends are responsible: (1) the rapid advancement and now omnipresence of new media; and (2) ongoing efforts by planning practitioners to incorporate new tools into public engagement processes. Combined, these trends have both allowed and encouraged planners to root practice in a rapidly accelerating digital culture. But are planning processes improving as a result? It is my contention that we do not yet know. Up until now, the study of new media in planning has been focused on the implementation and use of new media, often at the expense of adequately documenting its effectiveness or investigating its broader implications or both. Are we sleepwalking into the future?

The content and structure of this thesis was researched and developed from the summer of 2011 to the spring of 2013. Interviews were conducted with City of Vancouver staff and former Councillors, planning academics, and new media promoters. Interview findings were complemented by a literature review of research and opinion in planning, media studies, and various other areas.
In the first chapter, I document the recent development and implementation of new media in planning along with the simultaneously occurring advances in communications technologies. In the second chapter, I outline the broad shift away from top-down decision-making structures to more participatory forms of decision-making in planning using the City of Vancouver as a referential case study. In the third chapter, I discuss the three most common arguments in favour of new media in planning: that new media increases inclusivity and facilitates a more representative planning processes; that hi-tech planning processes can be less costly than traditional processes; and that interaction between people is simply better when done through new media. In the fourth and fifth chapter, I explore the broader effects of our increased use of new media, to both the individual and to society. I follow the above with concluding thoughts regarding new media’s role thus far in planning, and a list of recommendations that are meant to inform the conscientious use of new media in planning moving forward.
1 Digitizing the City

The ‘digital city’ concept encompasses the virtual domain into which the city has expanded, including the embeddedness of the virtual in the real and the real in the virtual.

Michael S. Laguerre, The Digital City (2005, p. xii)

The first documentation of the concept that would give rise to the Internet is found in a series of memos written by computer scientist J.C.R Licklider, referring to a concept he called the ‘Galactic Network’, which would connect computers to each other. This was over half a century ago, in August 1962 (Leiner, et al., 2003). In 1974, a year after the introduction of email, ‘Internet’ was being used as a shortened word for the inter-networking of computers (Leiner, et al., 2003). By the late 1970s and early 80s, citizens in the developed world would be connecting to the Internet to use bulletin board services and newsgroups (Baron, 2008).

What can broadly be referred to as the ‘digital cities movement’ found its beginnings in community networks, which arose in the mid 1980s. Community networks, usually local and independent, have also been referred to as civic networks, Free-Nets, community computing centers, and public-access networks (Schuler, 2005). Generally, the objectives of community networks were to focus and compile information relevant to that community, provide free email and other Internet services, and maintain online forums where community members could connect to their government as well as to each other: “the most important aspect of community networks [was] probably their potential for increasing participation in community affairs” (Schuler, 2005, p. 19).

The Internet was developed primarily in the United States, so it’s not surprising that the first city to go digital would be American. Online in 1986, the Cleveland Free-Net would
become the world’s first community network (Ishida, Aurigi, & Yasuoka, 2005). “It started from a free electronic help line that connected doctors and patients” who had access to computers and modems (Ishida, Aurigi, & Yasuoka, 2005, p. 190). By the early 1990s the Internet was becoming more widely available, and “a large number of community networks” would go online in the US as well as in Canada (Ishida, Aurigi, & Yasuoka, 2005, p. 188).

Conceived in 1991, the Blacksburg Electronic Village (BEV) would be launched two years later in 1993 (Carrol, 2005). By the end of its first year online, roughly one thousand members would be using the network, which had the goal of providing these members with access to “local government services,” helping them to “participate in local government” (Carrol, 2005, p. 48). BEV also sought to “create new possibilities for local economic development,” which included promoting Blacksburg’s image (Carrol, 2005, p. 48).

In January of 1992, the Seattle chapter of Computer Members for Social Responsibility (CPSR) voted to create the Seattle Community Network (SCN) (Schuler, 2005). It came online in January of 1994 and was unveiled to the public in June of that same year (Schuler, 2005). Like Blacksburg, SCN had “the goal of creating a cyber space accessible to the public” (Ishida, Aurigi, & Yasuoka, 2005, p. 191). SCN would be a free, community owned and operated computer network that provided email to thousands of people as well as websites to community groups (Schuler, 2005).

In late 1993, the Davis Community Network (DCN) was launched as a way to respond to the community’s needs in “a globally evolving information society” (Lowenberg, 2000, p. 179). “A small group of concerned and active citizens formed DCN to serve the needs of an increasingly communications networked locality in ways that could not be
properly met purely by the commercial marketplace” (Lowenberg, 2000, p. 179). DCN would provide public access to computers, and courses on the Internet and computer use (Lowenberg, 2000).

By the mid 1990s, community networks had become commonplace in North America: “there were nearly 300 operational systems with nearly 200 more in development and the number of users exceeded 500,000 people worldwide,” writes software engineer and Evergreen State College instructor Douglas Schuler (2005, p. 19). At this point, similar virtual urban spaces—that would come to be referred to as ‘cybercities’, ‘virtual cities’, and most commonly ‘digital cities’—were also being developed in Europe (Ishida, Aurigi, & Yasuoka, 2005).

In 1994, the year of the first annual 'European Digital Cities Conference' “more than 100 European local organizations started to discuss digital cities,” writes Kyoto University social informatics professor Toru Ishida (2000, p. 7). This would also be the year Europe's first ‘digital city’, Amsterdam’s ‘De Digitale Stad’ (DDS), would be launched (De Digital Stad, 2013) starting “a sort of ‘digital city’ movement within Europe” (Ishida, Aurigi, & Yasuoka, 2005, p. 193). A year after going online, DDS would be receiving 4,000 site visits a day (Tan, 1995) and its 10,000 virtual inhabitants would come to be referred to as ‘netizens’ (Hinssen, 1995). DDS was intended as a ten week experiment to connect citizens with politicians before their next municipal election; DDS allowed netizens to view council minutes, consult official policy papers, and request information from the ‘digital town hall’ (Tan, 1995). As planned, ten weeks after DDS’s launch the municipality withdrew funding. DDS, however, sought ways to become commercially self-sustaining and would remain
online (Hinssen, 1995). A couple years later, DDS would be hosting 48,000 visitors weekly (Ishida, 2000).

Because of its success, just one year after its launch DDS’s founders were “already setting their sights beyond Amsterdam”—the founders’ vision was “a network of digital cities all over Europe, connecting digital citizens across state and cultural boundaries” writes Peter Hinssen (1995, para. 28) in Wired. That same year, Digital Metropolis Antwerp (DMA) went online. According to Antwerp’s Vice Mayor Bruno Peeters (2000, p. 73) “Antwerp was then the first city in Belgium to have a web site of its own on the Internet.” Like DDS, DMA would provide governmental and cultural information and give participants free email addresses (Peeters, 2000). Within three years, DMA would have more than 30,000 active members who would be exchanging more than 50,000 emails every month, and a year after that, it would win a ‘Global Bangemann Challenge’ award for demonstrating success in information and communications technology (Peeters, 2000). Five years into the project, the City stated ‘telematics’ were “as important as the management of the city’s budget and finances” (Peeters, 2000, p. 81).

By 1996, a year after DMA’s launch, digital cities were underway in Gothenburg, Helsinki, Ennis, and Bristol to name just a few.

The Gothenburg project was a project supported economically by the European Commission, “aiming at using IT to improve local government services and to enhance democracy in local government” (Ranecrup, 2000, p. 211). The project would consist of online discussion forums “implemented and run by local government” and tailored to Sweden-specific municipal governance issues (Ranecrup, 2000, p. 209).
With the (at this point novel) goal of building a 3D virtual model of itself, the City of Helsinki undertook the ‘Helsinki Arena 2000 Project’ (Ishida, 2000). According to Linturi, Koivunen, and Sulkonen (2000, p. 83) of the Helsinki Telephone Company, “this gives us many possibilities in augmenting the real city” and “gives the citizens many new possibilities for communicating with each other as well as with the local communities and businesses.”

The town of Ennis, Ireland then made a bid to become the ‘Largest Community Technology Project in the World’ (McQuillan, 2002). ICT infrastructure was built and investments were made in public education and training (McQuillan, 2002). The website was a source for community and tourism information, local news, and online shopping (McQuillan, 2002). The project was funded by Telecom Éireann, an Irish Telecommunications provider “to accelerate Ireland’s progress towards the Information Society” (McQuillan, 2002, pp. 139-140).

Meanwhile, “Digital City Bristol Interactive (DCBI) was being envisaged as a truly versatile, community-oriented, highly interactive and participation-friendly project” officially launching in 1997 (Aurigi, 2005, p. 147). Also in 1997, a survey of 167 cities in Europe found that nearly three fourths had ‘working web sites’ displaying city-related “Internet based information and services” (Aurigi, 2005, p. 76).

That same year, the City of Bologna was taking the digital cities movement one step further, creating Iperbole: a virtual space that would empower citizens to participate for the first time in a two-way dialogue regarding municipal decision-making (Aurigi, 2005, p. 102). Because, as Plymouth University urban design professor Allesandro Aurigi (2005, p. 129) writes, “the digital city needed digital citizens,” Internet connections were subsidized
and public access terminals were installed. A year later, roughly 10 percent of Bologna’s citizens were using Iperbole, which was receiving 12,800 hits daily (Aurigi, 2005). A year after that, daily hits had increased to 96,000 (Aurigi, 2005).

As digital cities were reaching ubiquity in Europe, city ‘informatization’ was underway in Asia. “The first country in Asia to implement an informatization project was Singapore” (Ishida, Aurigi, & Yasuoka, 2005, p. 196). ‘Singapore One: One Network for Everyone’ was launched in 1996 to develop countrywide broadband communication infrastructure (Ishida et al., 2005). That same year, cities in Malaysia had also gone digital as part of Malaysia’s e-government initiative (Ishida et al., 2005). And digital City Shanghai, launched in 1997, with the goal “to be an integrated information and service environment for everyday life,” and would provide virtual versions of government, banking, enterprises, markets, libraries, hospitals, communities, and schools (Peng et al., 2000).

A year later, the Digital City Kyoto Project was launched to “create a social information infrastructure” that used online maps to display live data on “traffic, weather, parking, shopping, and sightseeing;” for example, tracking buses throughout the city using GIS software (Ishida, 2000, p. 11; Ishida et al., 2005). This was an attempt to “create a digital city that has real value and connections for people to the physical world, rather than a stand-alone fantasy or simulation space,” writes Isbister (2000, p. 391). Digital City Kyoto would “build upon and complement what is available in the physical city” (Isbister, 2000, p. 391) and would also double as a marketing tool, providing virtual tours of the city for potential visitors (Ishida, 2000; Isbister, 2000).

By the late 1990s, cities throughout Asia would be actively informatizing, most major European cities had gone digital, and hundreds of grassroots community networks
had arisen in municipalities across North America (Ishida at al., 2005). For nearly a decade, cities and towns had focused and reorganized urban information into online platforms across the globe, mostly to encourage public participation in local decision-making (Ishida, 2000) and very often with the broader goal of growing the economy (Ishida at al., 2005). Looking back, digital cities were “initiated by two distinct phenomena,” write Toru Ishida, Alessandro Aurigi, and Mika Yasuoka (2005, p. 189): the first was “non-profit, ‘grassroots’ community-generated electronic forums, such as the ‘freenet’ movement in the US,” and the second was private companies seeking economic gain via control of local web portals. By the late 1990s, the latter phenomenon was increasingly displacing the former.

### 1.1.1 Commercialization and the End of an Era

These are profit-oriented portals that provide local information. Their outstanding usability and rapid growth has raised the warning that ‘the pursuit of profit will destroy grass-roots community networks.’


In Europe, digital cities, which were commonly public-private and sometimes academic endeavours, would eventually come into competition with better-funded commercial ventures (van den Besselaar & Beckers, 2005). Europe’s digital city exemplar, DDS, would lose relevancy by 1998 as its services became more sought after on for-profit websites (van den Besselaar & Beckers, 2005). Some European digital cities, however, would live on by transitioning into municipal websites; those that didn’t would eventually cease to exist (van den Besselaar & Beckers, 2005).

“The most significant trend in Asia was the emergence of city informatization as a governmental national project,” write Ishida et al. (2005, p. 196). The city informatization
networks therefore remained because “government was directly involved, and supportive” (Ishida et al., 2005, p. 193).

In North America, where the digital city phenomena was initiated as a grassroots initiative, shortly “after the birth of pioneering community networks like Blacksburg and Seattle, commercial sites like AOL Digital City, and Microsoft Sidewalk came into being” (Ishida at al., 2005, p. 191). As digital cities were growing increasingly popular in Europe and Asia, the grassroots ‘community networks’ that started it all were already being displaced by profitable ventures “rushing to develop a network of urban sites” that, rather than seeking to build a community's local capacity, offered location specific commercial services like entertainment listings, restaurant information, tourist guides, online dating, and ticket ordering (Chervokas & Watson, 1997; Dembeck, 1999).

In 1997: AOL’s Digital City project, founded in 1994 was gaining momentum; Sidewalk, founded in 1994 and purchased by Microsoft in 1996, was planning it’s entry into the market; and Ticketmaster's CitySearch, founded in 1995, had already established websites for New York City, Pasadena, Raleigh-Durham, and San Francisco (Chervokas & Watson, 1997). By 2000, AOL’s Digital City project had more than 17 million members, and had websites for 65 American cities with plans for nearly 150 more (Dembeck, 1999; Ishida, 2000). To remain competitive with Digital City, CitySearch bought out Sidewalk, and in return Digital City bought out Total New York, the online guide to NYC (Chervokas & Watson, 1997; Dembeck, 1999). The late 1990s are likely the point where it had become clear that, as Carr (2008, p. 110) writes, “the web [had] turned out to be less the new home of Mind than the new home of Business.” The period from about 1997 to 2000 would see
smaller-scale content providers selling out to big software and media companies, which in turn would be bought out by bigger software and media companies (Dembeck, 1999).

Rushkoff (2001, para. 25) concisely refers to what happened next as “the inevitable collapse of the dot-com pyramid.” The dot-com boom and subsequent bust is elaborated upon in more detail in the accounts of Lewis (1999), Paternot (2001), Kuo (2001), Cassidy (2002), and Indergaard (2004). In short, a wide availability of venture capital and government subsidy combined with an overestimate of future profits caused by the assured although largely unexplained benefits of rapid technological advancement led to reckless investment (Cassidy, 2002). First, stock prices soared, then soon came the inescapable and “rapid unraveling of the dot-com economy that began in mid-March 2000, when the NASDAQ index of high-tech stocks began to spiral downward: ‘It’s over!’” (Kirsch, 2004, p. 347).

1.2 Enter Web 2.0

So the idea is that Web 1.0 was a ‘push-down’ internet, defined, like the rest of mass media, by elite producers providing content for audiences (web browsers) but now Web 2.0 allows us to make media for ourselves—a media landscape defined by horizontal connection rather than vertical ‘delivery’.

Julian McDougall, Media Studies (2012, p. 21)

The term ‘Web 2.0’ was first coined in 1999, just months before the climactic dot-com bust.

“The Web we know now, which loads into a browser window in essentially static screenfuls, is only an embryo of the Web to come,” wrote DiNucci (1999, p. 32) in the visual-design focused Print Magazine. The first iteration of that embryo’s next life-stage “appeared out of nowhere in the summer of 1999,” writes Carr (2008, p. 19), “in the form of a small, free software program called Napster.” Napster’s main function was that it enabled the online sharing of previously only commercially available music. But it’s everlasting
effect was that it “showed the world, for the first time, how the Internet could allow many computers to act as a shared computer” (Carr, 2008, p. 20). Meanwhile, the Internet’s popularity would continue growing: American’s would be spending 20.2 hours a month on the web by March of 2001, up from 15.9 in 2000 and 12.8 in 1999; and online business had grown by more than 30 per cent in the year following the dot-com crash (Rushkoff, 2001).

Google Earth/Maps would go online in 2000, Wikipedia in 2001, and personal blogging platforms like Wordpress would appear in 2003. By 2004, at the first ‘Web 2.0 Conference’, it seemed things were back on track for web-investors as tech-book publisher Tim O’Reilly would popularize ‘Web 2.0’ as a way to package and sell what was occurring (O’Reilly, 2005). Soon after, the now iconic platforms of the participatory web would emerge: Facebook, launched in 2004 and was open to the public (as opposed to just American college students) in 2006; YouTube and Flickr in 2005; and Twitter in 2006. Half a decade after the dot-com crash, the web was being used for media exchange, collaboration, socializing, sharing, blogging, tagging, bookmarking, rating, and gaming (Kubicek, 2007).

When digital cities became established in North America, Europe, and Asia, with the exception of a few innovative projects, websites generally functioned as outlets of information and places to exchange messages. In the Web 2.0 Era, many websites would function like applications, and web users would become creators of the content they were consuming. Those championing Web 2.0 describe online activity from this point on as user-centered, user-generated, and user-controlled (O’Reilly, 2005). While the ‘one-to-many’ form of communication did exist, to an extent, well before the onset of Web 2.0, figures like
decades-long information-age observer Manuel Castells (2009) would define the shift to
Web 2.0 as from interaction between ‘one-to-many’ to ‘many-to-many’.

1.2.1 Introducing Online Engagement

E-democracy consists of all electronic means of communication that enable/empower citizens
in their efforts to hold rulers/politicians accountable for their actions in the public realm.
Alexander H. Trechsel, Raphael Kies, Fernando Mendez, and Philippe C. Schmitter
‘Evaluating the Use of New Technologies in Order to Facilitate Democracy in Europe’ (2003, p. 3)

In 2000, a study by Musso, Weare and Hale found that local government websites were
beginning to provide citizens opportunities, albeit few, for interaction. This limited
interaction was later confirmed in another study, using 2000 census data to analyze cities
in the US with populations of at least 50,000, which found that most of the over 600
municipal governments surveyed, communication on websites was primarily one-
directional (Evans-Cowley & Conroy, 2006).

In 2003, a study for the European Parliament, on the potential of electronic
democracy, by Trechsel et al., foresees a number of opportunities arising as a result of the
recent technological advances: increased government transparency; a more informed
citizenry; and the more direct involvement of citizens in local decision-making. In March of
that same year, an OECD report, ‘Promise and Problems of E-Democracy: Challenges of
Online Citizen Engagement’, had undertaken the task of evaluating the potential of online
participation. According to the OECD’s (2003) findings, online participation in government
processes would be easier, cheaper, and more flexible, and would reach more citizens.
From 2003 to 2004, the websites of 35 European cities with a population of more than
500,000 were surveyed. It was found that more than 60 percent of them contained
information such as mayor and council profiles, council minutes, reports, and press
releases, and significantly, 25 per cent now hosted discussion forums (Torres, Pina, & Acerete, 2006). Meanwhile, in the US, a study of more than 60 planning processes in Florida and Washington found that municipal websites had begun to play a more central role in engaging citizens (Brody, Godschalk & Burby, 2003).

“By 2004 the use of technologies for participation had increased,” write Evans-Cowley and Conroy (2006, p. 83) who note that e-government was becoming more interactive and transparent. At the same time, a proposal would be put forward for the creation of a federal organization that would develop and manage online participation in the US—a noted benefit would be a database of ‘crowdsourced’ data that could be compiled and analyzed (Evans-Cowley & Conroy, 2006). Between 2004 and 2005 “municipal planning departments provided a substantial number of additional interaction opportunities,” yet communication was still mostly ‘monologue’ as Evans-Cowley and Conroy (2006, p. 98) put it. In other words, even though gains had been made, there was still little two-way interaction online between citizens and government.

In 2005, a two-year study funded by Britain’s Office of the Deputy Prime Minister was published. It showed that 32 percent of the UK’s municipal websites now hosted an online forum in some capacity (Pratchett, Polat, & Wingfield, 2005). That same year, a study analyzing the websites of Germany’s largest cities found an increase from the previous year in online participation: 48 of the 82 cities studied used websites to provide information about participation, and 17 allowed feedback on local issues to be submitted online (Initiative eParticipation, 2005). Meanwhile in the US, nearly all planning departments or commissions were posting plans, supplementary information, contact
information, project agendas, and meeting minutes online, while many city websites had begun to host map databases (Taylor, 2005).

A year later, a study assessing the use of online media in municipal planning, by the German Institute for Urban Studies would find that, out of 235 municipalities surveyed in Europe, 60 percent had published maps and other documents on their websites for the purposes of consultation with the public, and significantly, 9 percent now published comments from the public—showing the first signs of two-way interaction between a government and citizens online (Kubicek, 2007). Though change was clearly taking place half a decade into the new millennium, Western cities hadn’t yet fully embraced Web 2.0 ideals: their presence online was primarily for the dissemination of information. As a sign of things to come, *Time* magazine made us (yes, you and I) its 2006 person of the year. We were being recognized, in advance, for taking on the role of participants in the advancement of the information age (McDougall, 2012).

### 1.2.2 A New Era of Practice

A class of new and emerging participatory Web-based tools, referred to at present as ‘Web 2.0,’ can and should be used by urban designers and planners to achieve better results in public participation exercises.

*Jase Wilson, Web 2.0 for Urban Designers and Planners* (2008, p. 3)

What some see as Web 2.0’s inevitable integration of planning practice was first realized from 2006 to 2007, when the implementation of a series of new online tools was expedited during the period of urgency following Hurricane Katrina. “Viewed from the perspective of planning theory,” writes Jacob A. Wagner (2010, p. 108) assessing the post-Katrina Unified New Orleans Plan (UNOP), “the flurry of planning and design activity in New Orleans represents a confluence of trends in participation, communication, and technology that
heralds the arrival of a new era of practice in which digital media and communications are ubiquitous.” In 2006, during the development of the UNOP, citizens were engaged formally and informally on webpages, blogs, and email listservs—staying informed, filling out online surveys, and contributing to a participatory website (Wagner, 2010). That same year, it was stated, “governments at all levels are making commitments to provide staff, funds, and technology for e-government” (Evans-Cowley & Conroy, 2006, p. 83).

In 2007, the report ‘Electronic Democracy and Deliberative Consultation on Urban Projects’, by Herbert Kubicek (2007, p. 1) of the University of Bremen, was commissioned with the intent of “increasing [...] citizens’ participation in urban development activity” and further promoting ‘e-democracy’ which now involved “online fora, chatrooms, surveys or collaborative systems which may be employed in consultations in urban planning procedures.”

With the goal of moving us toward implementation, Jase Wilson (2008), in his MIT master’s thesis, outlines a hypothetical plan-making process whereby consultants are hired to make a website that, assisted by hyperlinks and embedding software would: link across the web to Flickr, YouTube, Google Earth/Maps, and any other available online platforms; display ‘visual data’ in sketches, renderings, diagrams, interactive maps, charts, and graphs; and host discussion forums as well as polls and questionnaires that display their results in real-time.

Soon after, the Obama Administration’s 2009 Open Government Initiative was put in place, encouraging “active engagement beyond the traditional bounds of public hearings and comments on draft regulations” (Leighninger, 2011, p. 2). That same year, Biloxi, Mississippi, began using new media not just for plan-making, but for ongoing education and
engagement, using ‘crowdsourced’ data to map local services, institutions, and community organizations, keeping the public up to date via Twitter (Lane, 2011). Meanwhile, Melbourne, Australia were allowing citizens to be directly involved online, in the real-time wiki-inspired drafting of their long-term citywide plan, ‘Future Melbourne’ (City of Melbourne, 2009). The City's goal was to create a city plan that anyone could edit (Nyame-Mensah, 2012). During four weeks of online engagement, their wiki-site received over 30,000 page views, more than 7,000 of which were unique (City of Melbourne, 2009).

By April 2010, 25 of Ontario's 444 municipalities “had an official presence on social media;” by August 2011, 127 did; and by April 2012, 193 did (Timoshenko & Demers, 2012, p. 1). Of the 193 using social media in 2012, 84 percent were using Facebook, and 69 percent Twitter; the majority were using both (Timoshenko & Demers, 2012).

In 2011, a study at the University of Illinois at Chicago revealed that Facebook and Twitter were being used by nine of the US’s 10 largest cities (Mossberger & Wu, 2012). In the same study, among the US’s 75 largest cities: 87 percent were using Facebook, a jump from 25 percent in 2009, and 87 percent again were using Twitter, a jump from 16 percent over the same period; meanwhile, 75 percent had posted videos or linked to YouTube, also up from 16 percent in 2009 (Mossberger & Wu, 2012). New York, Seattle, Portland, San Francisco, Denver, and Philadelphia, among others, were mentioned as having commendable online interactivity, transparency and accessibility (Mossberger & Wu, 2012).

The Portland Plan, adopted by council on 25 April 2012, encouraged ‘fans and followers’ to download information from the official website, engage with other citizens and planners via online discussion groups (Lane, 2011). The plan also used Facebook and
Twitter to raise awareness for events, gaining more than two thousand Facebook followers as of this writing (Lane, 2011). Seattle, meanwhile, has created a website that allows its citizens to submit ideas that could help balance the municipal budget (Lane, 2011). According to the website, the three step process involves: one, users submitting their ideas; two, the online community discussing and voting on the ideas; and three, the best ideas being presented at the top of the webpage (City of Seattle, 2012). The deadline for submissions was 27 October 2012. In an example from Europe, London, England has conducted online consultation for the Thames Tunnel project. In addition to providing what is described as an “inspirational” video and other information about the project, the website includes an online feedback form, where users can submit comments throughout the process (Thames Water Utilities Limited, 2012).

In a survey of 42 North American municipalities with populations over 250,000, Michael D. Epp (2012) found that, as of August 2011: 57.1 percent were using online social networks; 42.9 percent were micro-blogging (i.e., using Twitter) or instant messaging; 38.1 percent were using visualizing information in 3D (Google Earth/Maps); 33.3 percent were using web conferencing, which includes online public hearings; 31.0 percent were using models/simulations to display outcomes; 19.0 per cent were engaging in collaborative mapping; 14.3 percent had created online group edited documents or blogs; and 7.1 percent had made mobile phone applications available. Epp (2012) also found that while 24 of 42 (57.1 percent) of municipalities surveyed were using online social networks, 16 of the remaining 18 not using them expected to be doing so by 2012, leaving only 2 of 42 (4.8 percent) with no plans to use social media within the year following the survey. The use of mobile phone apps appears to be the fastest growing media among these municipalities,
even though only 3 of 42 municipalities have already adopted them, as a further 9 municipalities intended to adopt them by 2012—a jump from 4.8 to 28.6 percent among all surveyed (Epp, 2012). Leighninger (2011, p. 13), in his IBM-funded guide to using new media in public engagement, writes that “new citizen capacities and expectations” require government to use the full spectrum of online communications tools (Leighninger, 2011, p. 13). And most appear to be up to the challenge.

We’ve come a long way since 2005, when new media was being used sparingly to supplement traditional forms of communication like mail outs, open houses, and town hall meetings; or from 2000, when hardly any two-way communication between citizens and government was taking place online (Conroy & Evans-Cowley, 2005). This isn’t to say that, in the absence of new media, fair and meaningful participation in municipal decision-making wasn’t actively sought after. Rather, fair and meaningful participation, which is now a key priority in online processes, was at the time still being pursued face-to-face (Leighninger, 2011). The very notion that these processes should be fair and meaningful was earned through a decades-long struggle that spanned the continent.
2 Achieving Participatory Planning in Vancouver

During the 1960s a new desire for citizen involvement and social change was evident in Vancouver. Low income citizens, particularly those living in public housing projects began to express dissatisfaction. They needed assistance to deal with bureaucratic systems which were in control of their lives.

Margaret A. Mitchell and Cathie Goldney, *Don’t Rest in Peace—Organize!* (1975, p. 3)

By the late 1960s and early 70s, there was a collective realization, not only in Vancouver, but across North America, that municipal decision-making was outdated—it was leading to unjust outcomes largely because its processes were undemocratic (Gutstein, 1975; Mitchell & Goldney, 1975; Ley, 1994; Ley, 1980; Punter, 2003; Hutton, 2004, Hodge & Gordon 2008). These processes were rooted in planning’s origins.

In the early twentieth-century, top down, ‘expert’ driven decision-making would establish itself as the norm in Canadian municipalities. “In the decades leading up to World War I,” write Gerald Hodge and David Gordon (2008, p. 310) “the impetus for planning frequently arose from elite community groups.” By the 1920s, when “many municipalities established ‘town planning’ commissions,” elite-dominated power structures remained as members of planning commissions and “were frequently selected from the real estate and construction industries or other lines of commerce” (Hodge & Gordon, 2008, p. 310).

In Vancouver, a provincially instituted “plebiscite was held” in 1935 “which did away with wards and brought about an at-large system of government” (Hardwick, 1974, p. 31). From then on, Vancouver would elect its Council on an ‘at-large’ basis while “the day-to-day activities of the city would be supervised by a two man Board of Administration,” writes Walter G. Hardwick (1974, p. 181). Hardwick (1974, p. 181) argues, “this system encouraged a dependence on and high regard for expert and technical assistance from a
bureaucratic establishment, which in turn makes policy change a rather subtle process, to say the least.”

“From 1937 to 1972, the city was run by the Non-Partisan Association [NPA],” writes John Punter (2003, p. 13). “The Non-Partisan leaders, drawn from the city’s social and business elite, favoured business leadership, efficient and lean government, and generally discouraged public participation” (Punter, 2003 p. 13). During this time, Vancouver’s municipal government had a dominant city manager, a weak mayor, and a council made up of a small number of aldermen who owed no allegiance or accountability to the electorate (Hardwick, 1994). Donald Gutstein (1975, p. 139) sums up the philosophy of the time: “the NPA always supported real estate promoters and big business interests, believing that what was good for the real estate industry was good for Vancouver.”

The NPA saw the city as operating like a machine, in which the municipal government would act as the provider of goods and services, and citizens consume them (Hardwick, 1974). Policies that sought economic growth and government efficiency were favoured (Hardwick, 1974). These policies, as Peter A. Lupsha (1968, p. 331) writes, were “directed more towards system maintenance than system change or innovation.” The ‘system’ being maintained is what John Kenneth Galbraith (1967) refers to as the city’s decision-making components—its ‘technostructure’. It wasn’t until “the 1960’s that politicians became aware of the fact that goals of major subsets of the community did not subscribe to economic efficiency and other assumptions underlying these models” (Hardwick, 1974, p. 33). “City Council found itself expanding the civic infrastructure to catch up on public facilities delayed by the 1930’s depression and the 1940’s war and its aftermath” (Hardwick, 1974, p. 183). Funds had become available for highways,
neighbourhood redevelopment, and other large projects that threatened to destroy entire
neighbourhoods in many North American cities. Resistance would be primarily driven by
the fact that these urban renewal schemes were unwanted by those they would directly
affect: the low-income, and more often than not, ethnic minority citizens who would be
displaced.

“The first urban renewal project in Strathcona was carried out between 1961 and
1967. It displaced 1,600 people,” writes Gutstein (1975, p. 158). The second, approved in
1963, and carried out in 1965, “displaced 1,730 people and cleared 29 acres” (Gutstein,
1975, p. 158). A “third, far more extensive scheme,” bolstered by federal funding, would
include the construction of a freeway system (Gutstein, 1975, p. 158). Meetings assessing
the community’s reaction to the third scheme would be carried out in 1967 and early 1968
(Gutstein, 1975).

“For many years, the City of Vancouver together with business interests had been
trying to build a network of freeways through and around Vancouver,” writes Gutstein
(1975, p. 154). Now, “part of the costs for the freeway and access roads could be paid for
out of urban renewal funds, especially where it sliced Strathcona” (Gutstein, 1975, p. 158).
The freeway plan “included elevated freeways along the waterfront connecting to a tunnel
crossing to the North Shore off Brockton Point, another freeway south through the heart of
Chinatown, an east-west freeway connecting with the Chinatown section and the new
Georgia Viaduct [bisecting Strathcona], and a north-south freeway between Quebec and
Ontario Streets” (Hayes, 2005, p. 155). The freeway cutting through Chinatown was to
carry eight lanes of traffic: 200 feet wide and 30 feet high along Chinatown’s Carrall Street,
which was 50 feet wide and at grade at the time (Gutstein, 1975). “This time around,”
writes Gutstein (1975, p. 158) “resident protests were stronger, better organized, and achieved far greater success.”

At the time, Darlene Marzari (who would go on to become City Councillor then MLA) was employed as a City of Vancouver social planner. She had initially been hired to relocate Strathcona’s mostly Chinese population. Rather than do so, Marzari would enlist budding lawyer Mike Harcourt (who would go on to become City Councillor then Mayor and later Premier) and community development advocate Margaret Mitchell (who would go on to become MP) to help empower local residents to organize in an effort to save the neighbourhood. As a result of these efforts, Federal funding for Strathcona’s third urban renewal scheme would be frozen in 1968, and withdrawn completely in 1969 (Gutstein, 1975). No homes were expropriated and the community had successfully stopped the third Strathcona urban renewal scheme (Mitchell & Goldney, 1975). Harcourt and Cameron (2007) would recall this event as one of ‘nine decisions that saved Vancouver’. “One of the most distinctive urban features in Vancouver is its lack of downtown freeways,” As writes Derek Hayes in the *Historical Atlas of Vancouver* (2005, p. 154).

Gutstein (1975, p. 152) refers to the successful opposition to urban renewal as “the greatest flowering of citizen opposition [...] when a number of separate concerns and issues coalesced to cause the first questioning of the old value, that whatever was good for the developers must be good for the city.” It was “a monumental grassroots uprising, reflecting a sea change in social values,” writes Hayes (2005, p. 154). As Hardwick (1974, p. 183) puts it, citizens of Vancouver had reacted “against a government which did not see itself in a representative role and a technostructure that dwelt in professional isolation.” Mitchell and Goldney, 1975, p. 47), meanwhile, recall this victory as the point where
residents “established the principle that local communities through recognized representative citizen organizations should be included as full partners in local planning and decision-making for both social and physical development.” However you put it, from then on citizens would expect to have a role in municipal decision-making and this would be immediately expressed in the polls: “The City,” writes University of British Columbia planning professor Thomas Hutton (2004, p. 1958) was “on the threshold of important, redefining shifts in social attitudes, which found political expression in the election of an avowedly reformist Council in 1972.”

2.1 TEAM’s 1972 Council Majority

So it was that Vancouver residents were offered in 1972 neither lower taxes nor economic growth by aspiring reform politicians, but instead ‘a city people can live in and enjoy’

David Ley, The New Middle Class and the Remaking of the Central City (1996, p. 5)

Prior to TEAM’s 1972 Council majority, and during the NPA’s nearly four-decade reign, municipal decision-making was “organized into a hierarchical structure, and at the top of the structure was the board of administration, and in particular Gerald Sutton-Brown,” writes Gutstein (1975, p. 144). “Nowhere was Sutton-Brown’s control more complete than in the area of planning” (Gutstein, p. 144). After arriving in Vancouver in the 1950s, Sutton-Brown became the City’s first director of planning. By 1956, his dominance was enhanced as he became commissioner of the board of administration, which “had veto power over every technical planning board decision” (Gutstein, 1975). “By 1967, change was in the wind” as Hardwick (1974, p. 181) writes. Urban renewal failures like the freeway proposals and the redevelopment of Strathcona, as well as others like “the Arbutus Shopping Centre controversy, and the Block 42/52 giveaway all aroused strong hostility from many of the NPA’s middle-class supporters,” writes Gutstein (1975, p. 140). Expectations for citizen
involvement had arisen, and reforms would be made to the planning process throughout the 1970s, but specifically in 1972, with the introduction of a TEAM dominated Council (Punter, 2003).

TEAM candidate Art Phillips was elected Mayor along with nine TEAM Aldermen (now known as Councillors) out of a possible eleven (Hutton, 2004). The majority was a virtual sweep: only “two weren't TEAM but they were very amenable,” recalls a former TEAM Alderman: “What did we have on Council? We had Walter Hardwick, an urban geographer; Fritz Bowers, an electrical engineer who believed in planning, big time; Setty Pendakur, an engineer; me, a social worker; Harry Rankin, an old communist who knew the city like the back of his hand, and bought into the notion of using land-use in planning.”

Sutton-Brown’s immediate firing and replacement represented “a transfer of powers away from the Board of Administration to the mayor, committee chairs, city manager, and department heads” (Punter, 2003, p. 26). TEAM also reformed permit processing by bringing all “development permits and licenses under the control of the director of planning,” who would respond directly to Council (Punter, 2003, p. 28). TEAM then “tapped the desire of Vancouverites to be involved in planning decisions in the city,” writes Punter (2003, p. 381). “Under Ray Spaxman,” the newly appointed director of planning, writes Mitchell (2008, p. 71) “more support was given to citizen involvement in planning;” and “nothing happened without neighbourhood involvement.”

“TEAM rejected the pro-business (and pro-growth) biases of its predecessor, the Non-Partisan Association (NPA), instead declaring the virtues of ‘quality of life’, ‘the livable city’, and ‘people before property’,” writes Hutton (2004, p. 1958). They “had a more considered and sensitive approach to development, advocated more participatory planning
practices, and a more inclusive vision for the future of the city” (Punter, 2003, p. 14). From 1972 on, “all planning processes were subjected to increasing levels of public participation,” writes Punter (2003, p. 381). Completed in 1973, greater Vancouver’s ‘Livable Region’ plan is described as “a genuine attempt to involve the population-at-large in identifying issues and alternate futures for the region” (Hardwick, 1974, p. 180). From 1987-2000, the development of False Creek North and Coal Harbour included “extensive, continuous public participation at each stage,” and involved public meetings and consensus building that translated into the types of facilities and amenities provided (Punter, 2003, p. 239). For CityPlan, Vancouver’s most recent citywide plan, completed in 1995 after years of consultation, Punter (2003, p. 183) writes, “few cities have invested as heavily as Vancouver in community visioning as a foundation for citywide and neighbourhood planning.” And in the late 1990s, legislative changes to the Vancouver Charter, specifically the approval of a by-law to implement a city-wide development-cost levy in 1999 involved a public review, working sessions, and surveys, “following Vancouver’s tradition of collaborative policy making” (Punter, 2003, p. 313).

After a year of conducting field research on the impact of progressive politics in Canadian cities, Donald Higgins’ (1981, p. 94) assessment of the shift to more participatory planning processes is: “Canada’s major cities, and their politics, in 1980 are a little more humane and a little more democratic in some ways and in some places than they were in the mid-Sixties.” His conclusion, however, is: “so much remains to be done” (Higgins, 1981, p. 95). Roughly three decades later, that sentiment is still felt. Even though “Canadian communities have extended their public-participation efforts,” write Gerald Hodge and David Gordon (2008, p. 300) in their most recent edition of *Planning Canadian
Communities, “effective community participation requires still more.”

2.1.1 Planning’s Epistemological Shift

There is concern that participation processes constrain the access of many citizens. Gerald Hodge and David Gordon, Planning Canadian Communities (2008, p. 296)

In the 1960s and 70s, as the negative outcomes of top-down planning became clearer and better documented, in works like Martin Anderson’s The Federal Bulldozer (1964) and Scott Greer’s Urban Renewal and American Cities (1965). Charges for increased public participation in local development later arose Daniel P. Moynihan’s seminal Maximum Feasible Misunderstanding (1969), and its local equivalents: Margaret Mitchell and Cathie Goldney’s Don’t Rest in Peace—Organize! (1975) and Donald Gutstein’s Vancouver Ltd. (1975). While little was written about public participation in municipal decision-making in the 1950s and 60s, the 70s saw an explosion of writing on the subject (Hulchanski, 1977).

An important insight during this period was an acknowledgment of the limitations of ‘expert knowledge’ (Churchman, 1971; Friedmann, 1973). With it, an understanding had been established, in both Canada and the US, that the local or experiential knowledge of all citizens should be represented in decision-making at all levels (Moynihan, 1969; Mitchell & Goldney 1975). Research has since suggested that participation in planning fosters increased education and awareness in the citizenry, resulting in: more responsive government (Arnstein, 1969); more effective and socially just policies (Berry, Portney, & Thomson, 1993); and stronger communities with higher levels of social capital (Potapchuk & Crocker Jr., 1999). Today “public participation is a hallmark of planning practice,” write Conroy & Evans-Cowley (2005, p. 75) and according to Ghose (2001, p. 142) the “inclusion
of residents in information gathering, policy study, and policy formation hardly requires argument.”

Though planners agree participation is vital, there are still concerns that it is not being achieved in a sufficiently fair and inclusive manner (Sandercock, 1998; Hodge & Gordon, 2008). “Public participation programs in community plan-making still seldom broach” differences among citizens “based on age, gender, economic, status, literacy, and cultural background” (Hodge & Gordon, 2008, p. 313). “Even though the depth of public participation has increased to higher rungs on Arnstein’s [1969] ladder in many places, the same progress cannot be said for increasing its breadth,” write Hodge and Gordon (2008, p. 313) who argue that “in most instances, the public is seen as no more than an undifferentiated human category.” The failure to acknowledge differences among citizens and then engage those who are excluded has long been an issue in planning (Roy, 2001). Addressing this issue begins with an acknowledgment that the public is more than an undifferentiated category. Sandercock (1998) writes, the public should be understood as ‘multiple publics’—when there is no ‘epistemology of multiplicity’, groups are excluded. Those consistently excluded from planning processes include women, youth, the elderly, the physically impaired, and certain ethnic groups (Sandercock & Forsyth, 1992; Greed, 1994; Sibley, 1995; Gleeson, 1999; Parr & Butler, 1999; Hodge & Gordon, 2008).

Women are excluded from planning processes when the process is not accessible to them. Women are still more likely to take on special family duties, which means the time and location of meetings is more likely to be inconvenient for them than for men (Hodge & Gordon, 2008). Planning processes also seldom take into account or seek knowledge of the city from a woman’s perspective (Snyder, 1995). And expert knowledge derived from
technical evaluations, which is often produced by men in male-dominated professions, is valued in municipal decision-making, and takes precedent over experiential forms of knowledge (Hendler & Harrison, 2000).

Youth also experience the city in a unique way that isn't recognized by traditional planning processes (Hodge & Gordon, 2008). The elderly, seniors 65 years of age and older, are currently the dominant age group in almost all Canadian communities, but their needs are not sufficiently acknowledged (Hodge & Gordon, 2008). As for those with disabilities, it has been known for some time now that a large portion (well over 10 percent) of Canadians have a form of physical impairment that limits their ability to attend meetings and other public events (Hodge & Gordon, 2008). These physical limitations also affect the way the built environment is experienced, meaning a crucial and necessary perspective is often neglected (Sibley, 1995; Gleeson, 1999; Parr & Butler, 1999). Finally, the ethnic composition of Canadian cities is constantly in flux. Nearly three quarters of new immigrants are visible minorities, the majority of which live in Canada’s metropolitan areas (Hodge & Gordon, 2008). Ethnic enclaves have formed (Hou & Picot, 2004) and planners must therefore proactively adapt processes to include people of varying cultural backgrounds (Umemoto, 2001).

Because of this ongoing struggle to include multiple publics in a dialogue that recognizes all forms of knowledge—experiential, intuitive, somatic, and local, among others—planning scholars have long noted the need for new, and perhaps more creative forms of engagement (Landry, 2000; Sandercock, 2005; Sarkissian, Hurford & Wenman, 2010). Made possible by the rapid advancement of communications technologies through the 1990s and the emergence of the Web (Aurigi, 2005), this epistemological shift has since
been interpreted as advocacy for the adoption of new media in planning.

2.2 Vancouver’s Public Involvement Review

Public involvement should occur in an atmosphere of openness and trust; where the purposes of consultation are clear; and where the rights and obligations of the public, of City staff, and of Council are fully understood by all participants.

City of Vancouver, ‘City Communications Strategy’ (1995, Council Policy, para. 3)

In 1996, following CityPlan’s call for increased citizen involvement in municipal decision-making, and part of the City’s ‘Better City Government’ (BCG) initiative, the City of Vancouver set out to document existing public involvement practices, examine current involvement in decision-making, and develop new approaches where necessary (City of Vancouver, 1995a; City of Vancouver, 1995b; City of Vancouver 1996; City of Vancouver, 1997). The goal of the public involvement review was to examine the effectiveness and efficiency of citizen involvement in City affairs, with an explicit acknowledgment that public involvement is essential to good governance (City of Vancouver, 1997).

‘Public involvement’ is defined in the final report, as “any means of involving people who are interested in or impacted by a City decision, in the decision-making process, in order to improve the final decision” (Context Research Ltd., 1998, p. 3). In this report, consultants Context Research Ltd. state, “most people involved in the review would agree that the City does quite well in terms of public involvement. It offers more opportunity for the public to become involved in decision-making than other cities in the province, and in Canada. It is widely agreed that it is better than it used to be” (Context Research Ltd., 1998, p. 2).

2.2.1 New Tools for Better Planning

The Internet is a key communication enabler
Before the Public Involvement Review, “Council adopted a City Communications Strategy in November” of 1995 that would aim “to enable staff to communicate more effectively with the diverse communities that make up Vancouver” and would set aside funding for “the Communications Division to provide such services as advertising, media relations, external and internal communications programs and the use of new communications technologies” (City of Vancouver, 1996, p. 5). The Review acknowledges and incorporates the goals of the communications strategy, which outlines “the use of the Internet to communicate with citizens” as an early initiative (City of Vancouver, 1996, p. 5).

In incorporating the communications strategy, as the fifth of five directions for improvement in the final report of the Public Involvement Review, the consultants suggest “the City should broaden its use of the media, especially localized media, the internet, and the ethnic media, to enhance its ability to communicate on issues and to inform citizens of options for input” (Context Research Ltd., 1998, p. 3). ‘Use of the media’, which involved all of the above, would be one of 16 citywide directions Council would subsequently adopt for implementation (City of Vancouver, 1999). It was reiterated that “television, radio, internet, and the press should be used more effectively to access larger, less involved audiences” (City of Vancouver, 1999, 14. Broaden Use of Media in Public Involvement, para. 1).

Approaches for implementation were then developed and published in a Public Involvement Review policy report (City of Vancouver, 1999). Under the report’s guiding principle of ‘Improving Community Contact’, it is noted, “communities are sometimes left wondering who to contact and how to get follow-up services, information and resources” (City of Vancouver, 1999, p. 4). Growing the City website was seen as a solution to this
problem as it “provides a relatively inexpensive opportunity to inform and communicate with residents and community groups” using searchable databases and community webpages (City of Vancouver, 1999, 4. Improving Community Contact, para. 1). City Staff acknowledge that, at this moment, only 40 percent of British Columbians have computers and only 18 percent have Internet access (City of Vancouver, 1999). They seek to resolve the problem by “placing public access terminals in every library branch,” and partnering with other organizations that could provide additional computers for public access (City of Vancouver, 1999, (b) Build on the City Website, para. 4).

In July 2001, a report for the final phase of the Public Involvement Review was published. A community web page pilot project, improving public access to the Internet, and VanMaps (an application that geographically visualizes information) were among initiatives already commissioned (Context Research Ltd. & Dovetail Consulting Inc., 2001). Moving forward, some of the final report’s recommendations are: to purchase a new database for tenant information that would be incorporated into VanMaps, extending its functions; to expand the City website so that it can notify community groups of development permits; and, that the City use the internet, among other communications tools, to better notify the public (Context Research Ltd. & Dovetail Consulting Inc., 2001).

By November 2001, in partnerships with the Parks Board and the Vancouver Public Library, 90 percent of the Public Involvement Review’s stated directions and initiatives would be complete or underway (City of Vancouver, 2001). Community Web Pages for all 23 of Vancouver’s local areas had been created (City of Vancouver, 2001). They would “contain information on services recreation centre programs, community events, developments and road construction” (City of Vancouver, 2001, 5. Improving Ongoing
By 2002, in a review of advisory bodies report, it was noted that the nature of public involvement in Vancouver was changing: “technological innovations have also allowed for greater access to civic information on a day to day basis, such as the Community Web Pages, which list neighbourhood services and provide up to date information on events and activities occurring in each city neighbourhood, including rezonings, development applications and street construction” (City of Vancouver, 2002, Discussion, para. 3).

Last came the ‘Public Process Guide’, which was created as “a practical handbook [...] to help City of Vancouver staff design and implement a public involvement process, or solve problems with one that is underway [...] it outlines best practices” as well as ‘steps’ and ‘strategies’ (Abs & Gardner, 2003, p. 1). In terms of ‘Communications Strategies’, the City’s ‘information out’ is said to help citizens “make informed judgments and participate meaningfully” if it has strong content and is user friendly; it is also said to have an “important role in improving public understanding of municipal processes, increasing City accountability to residents, and building long-term relationships with communities” (Abs & Gardner, 2003, p. 19). The guide lists currently appropriate communications methods, which, in addition to traditional methods, include the City website and e-mail (Abs & Gardner, 2003, p. 23). The next step, according to the guide, is to “work with Corporate Communications to develop a communication strategy,” which would be an update of the current communications strategy, and would include direction on the use of multimedia services like web design and video production (Abs & Gardner, 2003, p. 20). Finally, the guide reiterates the Public Involvement Review’s recommendation to “broaden use of media in public involvement,” and refers to the Internet as an ‘obvious’ channel of
communication (Abs & Gardner, 2003, p. 24). In the appendix, it is said that media is a tool to communicate information, stimulate interest, get free advertising for events, and find potential stakeholders and/or participants (Abs & Gardner, 2003).

2.2.2 New Media in Vancouver’s Planning Processes

Over the years traditional consultation methodologies have become less relevant and require updating to fully contemplate societal change and information and communications technologies.

Colleen Hardwick, ‘Online Public Consultation’ (2012, p. 4)

Since the City of Vancouver’s Public Involvement Review, new media has been steadily integrated into planning processes. A website was referred to for “easy access” to further information in the ‘Southeast False Creek Green Building Strategy’, which was adopted in 2004. For the City’s ‘Metro Core Jobs & Economy Land Use Plan’ (2007) the public was consulted through traditional methods like newsletters, an open house which attracted 250 people, and meetings with stakeholders, as well as new media: a listserv with 350 members and a project website. For the City’s 10 year ‘Culture Plan for Vancouver: 2008-2018’ (2008a), citizens were engaged in April 2007 through an online quiz and an interactive online survey, in addition to focus groups, discussion groups, and a phone hotline. The use of Twitter in the City’s ‘EcoDensity Charter’ (2008b) launched in 2007, was one of the first instances of the use of social media in public consultation in Vancouver. The Twitter account, however, wasn’t activated until the project was winding down. As a result, the account was left unmanaged and didn’t grow much of a following. When it was used, it was predominantly for notifications.

In the last five years, new media has, at an accelerating rate, been further integrated into planning at the City of Vancouver. “It feels like it’s in a state of dynamism right now,”
said one former senior planner in a 2012 interview. “It’s moving very quickly, and particularly in Vancouver.”

In 2010, prior to the formation of the City’s Corporate Communications department later that year, the Shannon Mews project was being conceived. Shannon Mews was considered a special site, and for that reason Council wanted City staff to go “above and beyond,” as one former senior social planner said. In 2011, a proposed rezoning application would be submitted for Shannon Mews, and service provider Bang the Table would be used to create ‘Talk Vancouver’, an online discussion platform used to supplement workshops and open houses. The goal of Talk Vancouver was to use online message boards to engage people that were commonly not included in local planning processes: renters, youth, parents with young children, and ethnic minorities.

“And then transportation and housing got into it. And that was the beginning of the ‘Talk Vancouver’ trademark. The branding of: ‘ok, this is where you go to talk to the city in online consultation,” recalls a former senior planner. ‘Talk Housing with Us’ culminated in the City’s ‘Housing & Homelessness Strategy 2012-2021’ and ‘Action Plan 2012-2014’ (City of Vancouver, 2011a; City of Vancouver, 2012a). ‘PlaceSpeak’, a place-based online public consultation platform, which launched commercially in the fall of 2011, was used instead of Bang the Table (and for the first time by the City of Vancouver) for this project (Lui, 2011). The ‘Talk Housing With Us’ engagement process attracted 400 participants through workshops and meetings, while 165 of the 2,400 site visitors contributed to the online discussion (City of Vancouver, 2012a). ‘Talk Transportation with Us’ provided consultation on ‘Transportation 2040’, the City’s transportation plan adopted by Council in October 2012 (City of Vancouver, 2012b). “At that point a lot of things were happening, housing was
doing it, but transportation did it more explicitly,” recalls a former senior planner. “When we did the Transportation Plan, we did a lot of traditional open house type stuff, and we did Facebook [...] and we had our website, which didn’t take off so well. The numbers on the open houses were definitely older Vancouverites; the numbers on Facebook were definitely younger. It really broke in terms of generation.” There was also ‘Talk Food With Us’ for the ‘Vancouver Food Strategy’ which was developed from the summer of 2011 to the spring of 2012, and included roundtable discussions with stakeholders, public events, as well as new media like Twitter and a blog (City of Vancouver, 2013). More than 2,200 participants are said to have been engaged (City of Vancouver, 2013).

As a number of City of Vancouver planners were getting acquainted with the ‘Talk Vancouver’ platform, others were trying their hand at crowdsourcing citizen input. The City’s first endeavour into this type of consultation was a competition called ‘re:CONNECT’, which sought ideas, from September to November of 2011, on how to proceed with development of the mostly vacant lands to the east and northeast of Vancouver’s False Creek. The communications department was consulted from the outset. In the end, the online submissions, which could be rated and commented on, received total of about 18,000 views. The City subsequently undertook a similar ideas competition, ‘re:THINK Housing’, which closed in the summer of 2012 (City of Vancouver, 2012). In the report to council, ‘Final Report from the Mayor’s Task Force on Housing Affordability’ the ideas competition, as well as a PlaceSpeak survey are said to have been considered ‘public feedback’ (City of Vancouver, 2012).

Conceived in 2010, Vancouver’s ‘Greenest City’ initiative continues to engage Vancouverites with new media, using Facebook, Twitter, Flickr, and City websites. Twitter
is used primarily to share information about events, and others with a large following on Twitter are then asked to share that information with their followers. “In the last year or so Greenest City used it really well, they were a big innovator, and that was the first big City program that used social media as a conversation tool,” recalls a City staff member.

The City’s (at the time of this writing in process) community plans—West End, Marpole, and Grandview-Woodland—have all enlisted social media as an engagement tool (City of Vancouver 2012, May 15). In an administrative report titled ‘Vancouver’s Next Community Plans’, “the need to continuously improve and indeed rethink approaches and techniques for public engagement” was stated (City of Vancouver, 2011c, p. 2). For the West End Community Plan, Facebook is being avoided due to its time commitment, but Twitter has been used as a tool to inform West End residents about events, surveys and other information. Members of the ‘West End Neighbourhood Champions’ network, a self-selected group of leaders living in the West End, have access to an online forum through PlaceSpeak, where residents can engage in conversations with one another and upload photos, videos and other documents. City staff are using PlaceSpeak to post questions, surveys, and generally get feedback. West End Community Plan-making process has also used a listserv, open houses, community events, a pub crawl, and coffee shop dialogues, and has tabled events like the farmers market and car-free day.

A decade ago, the City’s website was its only online engagement tool and was for the most part static, as in: not interactive. Any two-way interaction between the public and the municipality was still achieved in person or on the phone. Soon came email and along with it, listservs. Next came Twitter, Facebook, and most recently, PlaceSpeak and online ideas competitions. As of now, a rough guideline directing staff in their social media use is
Currently in place, but it is an internal document and not available to the public. Staff using new media are instructed: “whatever tool or platform or social network that you end up using really depends on the objectives of the program, what they want to achieve, and who their audience is,” said one member of the City’s public engagement team in the fall of 2012. They add, usage “also depends on the resources that the team has.” In other words, the use of these tools, platforms, and networks is encouraged, but with discretion. The City is (again, as of this writing) creating best practices and guidelines for online engagement, which includes reporting back tools and toolkits. The need for guidelines and practices is in a way an acknowledgment that, as we move forward, further investigation into the use of new media in planning is necessary. What follows is my attempt to contribute that discussion.
3 Three Arguments for New Media in Planning

The focus of e-government has been to transform traditionally face- or file-oriented tasks to the digital realm. The presumed benefits of such a transformation include increased efficiency, improved public information dispersal, and enhanced equity opportunities for citizens.


“Increasing participation in community affairs” (Schuler, 2005, p. 19) is what initially justified bringing municipal processes online: the development of America’s early 1990s grassroots community networks (Lowenberg, 2000; Carrol, 2005; Schuler, 2005; Ishida et al., 2005) and subsequently Europe’s digital cities (Peeters, 2000; Ranecrup, 2000; Ishida, 2000; McQuillan, 2002; Aurigi, 2005; Tan, 2005). The notion that, imbedded in these online processes was a better way to disseminate information and make decisions regarding the built environment, was nowhere more emphasized than in Asia’s city informatization movement (Ishida, Aurigi, Yasuoka, 2005; Ishida, 2000). By the late 1990s, the digital cities movement would slow, but its goals would be reaffirmed and elaborated upon by researchers now extolling the virtues of online participation (Al-Kodmany, 1999; Al-Kodmany, 2000) and conducting analyses to ensure the feasibility of online governance (Graham & Marvin, 1999; Kaylor, Deshazo, & van Eck, 2002; West, 2003). Eventually, the Internet would come to be seen as a tool that would not just effectively communicate information at less cost than traditional methods, but would also include a fairer representation of participants (Abs & Gardner, 2003; Weber, Loumakis, & Berman, 2003). By 2006, Evans-Cowley & Conroy (p. 82-83) had noticed that “the literature regarding citizen participation” was increasingly including a framework for implementing these ideals: providing “examples of technological methods to improve the participation process.”
Although further refined over the years, since the beginning of the digital cities movement, the same basic claims would remain. What follows is not an exhaustive list, but a focused analysis of what I’ve come to regard as the three most commonly cited arguments supporting the integration of new media into planning processes: (1) increased inclusivity and better representation; (2) reduced costs; and (3) enhanced interaction. Taken together, it is said more efficient and more equitable processes and outcomes are achieved.

### 3.1 Increased Inclusivity and Better Representation

Some planners hope that online social networking will be a panacea that will allow them to engage with all kinds of people with whom they have never interacted before.

Jennifer Evans-Cowley, ‘Planning in the age of Facebook’ (2010a, p. 410)

The increased inclusivity and better representation argument supposes online participation engages those not typically involved in planning processes because of increased convenience. Traditionally excluded groups like youths, the elderly, new immigrants, ethnic minorities, and those with mobile limitations are said to be more likely to participate online, in addition to those who simply prefer not to speak at public events.

This argument has existed since participation was possible online. According to Simons (1998, p. 14) “individuals who by ethnicity or personality are less outspoken in face-to-face situations may contribute more abundantly to news groups and forums that provide off-line time to prepare a response, or where they enjoy anonymity or less exposure.” Meanwhile, researchers Tella & Mononen-Aaltonen (1998) similarly expected online processes would foster inclusivity by increasing the participation levels of those who are likely to experience discrimination, in the form of racism or sexism, for example, in face-to-face situations. In their early assessment of online participation, the International Association of Public Participation (IAP2) (2000) didn’t necessarily argue a more inclusive
process could be achieved, but did suggest that response rates would be higher if participation was more convenient for participants. It was then explained that this would surely be the case in online processes since time and travel constraints can be eliminated (Carver, Evans, Kingston, & Turton, 2001) leading some to conclude that online participation would be an improvement on traditional processes (Kwan & Weber, 2003).

In one of the first comprehensive examinations of online participation’s potential in local governance, Conroy and Evans-Cowley (2005, p. 74) validate this initial speculation, concluding, “traditional venues such as public meetings can be inefficient and ineffective means of activating citizen interest, as their timing and form are often to blame for low participation levels by the general public.” They continue: “Work and household responsibilities often mean that few adults have or make the time to be civically engaged with their government,” emphasizing the fact that “citizens who choose to participate using ICT [information and communications technology] do so in the location and at a time of their choosing. Therefore, governments who can harness ICT e-government tools can potentially expand opportunities for citizen participation.”

More recently, the argument has been reiterated with increased urgency. As Hollander (2011, p. 589) writes, “getting a diverse group of representatives in a community together, face to face, can be impossible only on the basis of logistics of meeting times and travel schedules” (emphasis mine). Founder of PlaceSpeak Colleen Hardwick (2012, p. 20) explains: “Participating in time consuming meetings and hearings has become increasingly difficult for many individuals who have less free time and less predictable schedules than previous generations.” Moreover, when participation is not done online it is less equitable, because “certain groups of people who have more time and engage more have their voices
heard, while others do not have the time and their concerns are not entered into the
decision process” (Hardwick, 2012, p. 20). And if attending a public event requires travel,
the process excludes “those with accessibility issues” (Hardwick, 2012, p. 23).

While traditional methods of participation are said to be growing increasingly
inaccessible, it is argued that online participation is only becoming more accessible. As
Goggin and Clark (2009) have put it, the ‘contact zone’ between new media and one’s
ability to express themselves democratically is ever increasing as technology “advances.”
“Forget about public meetings, they’re gong-shows, forget about knocking on doors, people
don’t answer their doors, forget about telephone-based opinion polling because, as I’ve
learned, land-lines have been in absolute decline, about 12% year over year for the last
decade. So how do we reach people? Well, people are online,” said one new media
promoter in an interview.

3.1.1 More Accessible Equals More Equitable?

So far, reaching out to disparate groups online requires great effort, commitment and funding.
In addition to the costs of suitable technology, these experiments require careful planning and
consistent moderation.
Scott Bittle, Chris Haller, & Alison Kadlec ‘Promising Practices in Online Engagement’ (2009, p. 2)

There is evidence to support the assertion that participation online is more inclusive and
representative. It has long been suggested that a public event’s time of day, location, and
setting limits participation (Day, 1997; Chess & Purcell, 1999). And in more recent
experiences, according to one City of Vancouver staff member this remains true: “You have
an open house and a hundred people show up and that’s a really good thing, right? But
there’s a hundred people out of how many people live here?” On the other hand, they
continued, “using online tools in order to ask people what they think can reach a broader
“Planners have an interest in using online social networking as a way to engage a younger population, which has typically been underrepresented in traditional in-person participatory processes,” writes Evans-Cowley (2010, p. 408). After interviewing 300 what he calls ‘net geners’ (anyone born after 1976) Don Tapscott (2009) concludes youth today strongly value personal freedom, which includes the freedom to customize their daily schedule. One could then assume net geners would prefer to participate in municipal decision-making at a time of their choosing: today’s youth have “grown up getting what they want, when they want it, and where, and they make it fit their personal needs and desires,” writes Tapscott (2009, p.78). The question that remains is: when a typically underrepresented group prefers to communicate online, does it follow that online participation delivers a more inclusive and representative process?

In at least one study the answer has been yes: “Past outcomes for the Berlin Lichtenberg budgeting process demonstrated that offering different channels for participation can increase participant numbers and diversity, with approximately 4000 people from all parts of the district taking part in the first round in 2005/2006. Evaluation showed that this approach leads to greater diversity, with people of various age, gender, nationality and education participating. Online participants outnumbered the participants of the various events,” write Bittle at al. (2009, p. 12). Comprehensive evaluations of online participation processes, however, are rare if non-existent. And successes of online processes are more often celebrated in the form of anecdote.

For example, Smithers, BC Mayor Taylor Bachrach has noted how new media have allowed him to connect with what he feels is a more varied demographic; meanwhile,
Mayors Bernier of Dawson Creek and Leonard of Saanich are certain new media will help them connect more effectively with what they see as an elusive youth demographic (Metcalf, 2012). And Port Coquitlam Mayor Greg Moore, who immediately received 250 responses to a recent online survey he posted, stated in the Tyee: “It was phenomenal compared to the four you would otherwise get from the same four people every year” (Metcalf, 2012, para. 4). No doubt these mayors are interacting with more citizens as a result of new media, but are they interacting with a more inclusive and representative sample of the population? As Hodge and Gordon (2008) point out, among others (Milroy, 1992; Marris, 1998), when analyzing public participation, one must be careful not to conflate the sheer number of participants with an equitable process. The inclusivity and representativeness of those involved as well as the depth of their involvement and the fairness of the final outcome, must all be taken into account.

Yet, when attracting sheer numbers is a key strength of the online world, this conflation inevitably occurs. Writing in Planning, Bill Lennertz (2011, p. 29) notes, as a result of Plan El Paso’s 2010 ‘virtual town’ planning processes, “the planning team talked to more than 1,200 studio visitors, meeting attendees, and hands-on participants,” while “more than 35,000 people followed the project on its website or took part in online conversations and polling in the project’s virtual town hall.” In a similar fashion, Hollander (2011) notes how he attracted 500 participants in a recent online charrette. Lennertz (2011) and Hollander (2011) exemplify an all too common failure in the digital era of planning: neglecting to extend process evaluation beyond the celebration of sheer numbers.
When more rigorous frameworks of evaluation have been applied, the democratic nature of online participation appears to be less than a guarantee. The creation of the Unified New Orleans Plan (UNOP) has been cited as an example of ‘recovery activism’ that “could not have happened without the Internet, websites, blogs, data bases, list serves, online surveys, mapping programs and discussion groups that brought residents together in cyberspace when they were scattered across the country and unable to return home” (Sandercock & Attili, 2010, p. 319). The UNOP certainly used the Internet to bring people together, but according to Wagner’s (2010, p. 108) analysis, “the evidence from post-Katrina New Orleans indicates that the use of digital technologies in planning does not necessarily result in more democratic process.” At the beginning of Europe’s digital city movement, when the broader concept of ‘democracy’ was used to evaluate Amsterdam’s digital city a year after its creation, it was revealed: “the City has strayed far from its founders’ idealistic hopes. It hasn't created a true digital democracy, and it hasn't brought a new equality and openness to politics. The Digital City does not represent old Amsterdam. The Digital City’s last census showed its average inhabitant to be around 30 years old, highly educated, and a voter for D66, the liberal democratic party. All are by definition extremely computer literate. So the new Amsterdam does not represent anybody but itself. And even with its independent spirit, it has yet to prove itself autonomous” (Hinssen, 1995, para. 26). The point to be taken is that users participating online are not always representative of a group citizens as they exist in the community, municipality, or region the final decisions will affect. This is at least partly due to the division between who has (and who does not have) access to the Internet.
This division between who can and who cannot participate online has long been referred to as the ‘digital divide’. In the 1990s (as seen in Amsterdam’s digital city) when citizens were first going online, Internet users were more likely to be wealthier and more educated than the average citizen (Conroy & Evans-Cowley, 2005). Shortly after, it was concluded that the digital divide had disappeared, and that efforts would best be directed toward connecting the few on the fringes that remained offline (Compaine, 2001). These conclusions were found to be premature when it was discovered—regardless of who was or was not connected—those who choose to visit government websites are significantly unrepresentative of the general population (Thomas & Streib, 2003). As well, through more detailed analyses, the Internet as a whole would still be understood to be less available to certain groups depending on age, race, ethnicity, and language spoken (Fox, 2005; Fox, 2006). With the rise of social media, online social networks have been found to be similarly unrepresentative (boyd, 2007; Hargittai, 2007). As social media advocate Evans-Cowley (2010, p. 419) concedes, those who “extend their participation into the online world” are likely the same “citizens that already participate in traditional venues.”

Among them, it has been shown that “only 1 percent,” as Bittle et al. (2009, p. 11) write, “make up the core group that consistently posts, asks and answers questions and acts as the lifeblood of a network. Another 9 percent are less frequently engaged but post comments to the forum and contribute on their own schedule, while the rest are mostly passive readers.” Similar figures were observed in the development of Vancouver’s ‘Housing and Homelessness Strategy’, where 165 of the 2400 online visitors contributed to the discussion (City of Vancouver, 2011a). We must ask, when 90 percent of an already unrepresentative group remain passive observers, who are few who contribute to the
discussion? As this question remains largely unanswered, new concerns are emerging. For example, online polls have been plagued by the ‘early-submission bias’, where ideas that gain an early lead move to the top of the webpage, which then makes them more visible and more likely to receive further votes and eventually win (Bittle et al., 2009).

Even if all of the above is addressed, Chambers (2006) calls to attention what will likely be an ongoing concern: participants who do choose to participate but lack the technical skills to do so at a high-level may be disempowered by the process itself. They are understood to have “participated,” for example, in exercises like ideas competitions that are design-oriented, but can only do so in a way that cedes influence and control to those who possess the technical skills the competition favours. In Technology and Social Inclusion, Mark Warschauer (2003, p. 216) echoes these concerns: “participation requires not only physical access to computers and connectivity, but also access to the requisite skills and knowledge, content and language, and community and social support to be able to use ICT for meaningful ends.”

As the celebration of sheer numbers continues to deflect attention away from genuine process evaluation, what else are we not noticing? Healey, McNamara, Elson, and Doak (1988, p. 219), for example, have raised the concern that planning processes “significantly favour some groups and interest claims,” for example, landowners. When it’s concluded that a process is sufficient because a large number of participants were involved, are concerns like these being raised? As Healey et al. (1988) argue, “it is not that planning favours landowners or developers but that such biases are hidden behind a front that purports to be even handed” (Allmendinger, 2009, p. 100).
3.2 Reduced Costs

Individual efforts can be harnessed on a large scale to achieve collective outcomes. 

The second argument supposes that, in comparison with traditional forms of engagement, 
online engagement is less costly. Costs are theoretically reduced because: traditional 
marketing techniques are no longer necessary; and interaction is automated by technology, 
which enables, for example, the crowdsourcing of data.

The notion that bringing participation online would reduce costs is evident from the 
1990s (City of Vancouver, 1999) onward (OECD, 2003). While costs savings as a result of 
online processes is not clear in every case, they have been confirmed in at least one 
example. In Berlin, for example, the cost of administering the online engagement process 
was ‘significantly reduced’ without decreasing the number of participants when online 
participation was offered (Bittle at al., 2009). Similar studies have shown shown that online 
research in the form of surveys and data collection can be cheaper (than already existing 
processes) or made economically feasible (Supovitz, 1999; Daley, McDermott, McCormack, 
Brown, & Kittleson, 2003; Ahern, 2005).

In the Web. 2.0 era, an increasingly understood way to obtain information at a 
reduced cost is to enlist online participants as content providers: “Individual efforts can be 
harnessed on a large scale to achieve collective outcomes,” writes Tapscott (2009, p. 91) 
who argues, before the onset of Web 2.0 and ‘a new generation of collaboration tools’ 
crowdsourcing “would have been impossible to achieve.” Peer production, or using the 
public as a resource, is often referred to as ‘crowdsourcing’ and has been written about 
extensively by those who support it: James Surowiecki (2004) initially referred to the 
phenomena as the ‘wisdom of the crowd’; Henry Jenkins (2006) later called it ‘collective

Another characteristic of the Net gen, argues Tapscott (2009), is their affinity for collaboration—they want to help. The thinking goes, information is obtained at a reduced cost because citizens will work for free if they think they can influence policy, argues Lane (2011). If given the proper motivation, the citizenry’s talents as ‘information-gatherers’ are harnessed as a collective resource, write Bittle et al. (2009). Planning’s current epistemology supports that everyone’s knowledge has value—whether it be local, experiential, etc.—and proponents of social media argue that crowdsourcing is the easiest and cheapest way to gather that knowledge (Bittle et al., 2009). In recent examples, the public’s efforts have been used for: asset map-making in Biloxi (Lane, 2011); balancing the budget in Seattle (City of Seattle, 2012); co-writing Melbourne’s most recent citywide plan (City of Melbourne, 2009); and supplying concepts for the future of a neighbourhood in Vancouver (City of Vancouver, 2012).

3.2.1 Real Costs, Real Time-Commitments

You have to purchase the software then you have to monitor it.
Jennifer Evans-Cowley, (2010b, p. 144)

“Constant monitoring and management,” writes Evans-Cowley (2010b, p. 144) is “one of the main challenges” of online participation. It should be understood that any planning process involving human interaction requires labour and/or investment. For online processes, this labour and/or investment is required in four ways: first, online processes must be marketed and populated; second, online interaction must be continually
maintained and moderated; third, the information obtained must be evaluated before it can be put to use; and fourth, all of this requires technical expertise that is not acquired without additional training or staff.

First, “it requires a lot of work to populate or engage in the conversation,” says one City of Vancouver planner. “In a typical planning program, you would give the responsibility of populating to one of the younger planners. Does the younger planner have access to the same depth of information as the more senior planner? The senior planner is involved in a lot more higher-level meetings. That’s just difficult to manage,” they continue. At the City of Vancouver, the solution thus far has been to reach out to those with applicable knowledge when necessary. This coordination can take effort.

Second, once an online participation process has been marketed and populated, the conversation must be constantly moderated. As an example, for re:CONNECT, a staff member was given the role of monitoring the online discussion. “I think communications told us we needed somebody pretty full-time to be on it, and we didn’t really have that, but we thought, ‘oh, let’s just try it,’” recalls one City of Vancouver planner. “As a city I think we have to be a bit conscious as to which sorts of comments are being put out on our website,” they continue, “people can flag them as inappropriate and you get the email and you go back and check. But if somebody’s not flagging it [...] I mean, there were some pretty inflammatory comments on there that were either sexist or racist. We probably could’ve been a bit more diligent, but we were so tied up in some of the other processes going on that we were kind of were doing it off the side of our desk.” “You can set up all of the different settings around how long it takes, or whether you have to check a comment before it goes up. We were hoping to just let it go, but obviously you can’t control what
people say from behind their computer,” they explain. The moderating “was discretionary, because you obviously don’t want to be editing something just because someone disagrees with you. It was personal attacks” that were being removed.

When “conversation is carried out by anonymous” users, writes Keen (2007, p. 80) “community denigrates into anarchy.” This lack of etiquette in anonymous online interactions has been a problem since the advent of digital cities: "Well, of course, sometimes the level of discussion in a particular newsgroup is no higher than on chatterboxes; and you do have the occasional rabid rightist spreading racist smut on the net,” reported the virtual mayor of Amsterdam’s digital city, in the mid-1990s (Tan, 1995). The IAP2 (2000) has voiced concern over the vulnerability to manipulation and incivility in online participation. Now, companies offer monitoring services as part of their online engagement packages. They keep an eye on the conversation, and watch out for ‘trolls’, which are users who purposefully post inflammatory and often off-topic comments. At the City of Vancouver, outsourced moderation proved to be more cost-effective than in-house monitoring during one of their first online planning processes, and has been used since.

PlaceSpeak was developed with the goal eliminating the need for moderation by increasing accountability among all participants, and thus elevating the level of discourse online. The result is a platform that connects digital identity to physical location. The strategy appears to be working: troll attacks are nearly non-existent on PlaceSpeak. What PlaceSpeak highlights is that these concerns vary depending on which online platform is used. Facebook can be time consuming when compared to Twitter, for example. “One of the major benefits of Twitter? Time commitment-wise, it’s very light; cost-wise, it’s free. It’s a tool that so many people are using that’s so easy to use,” notes one City of Vancouver
planner. “My experience in previous projects using Facebook is it’s very time-consuming. It takes a lot of effort and time to constantly update things: making sure that you’re responding to questions coming up; making sure that it’s populated with the latest information; and making sure that you’re deleting some of the old information or at least hiding it a bit so it’s not still the focus.” “I think if we had Facebook it would almost be like managing a second website because we do have our webpage and that has to be updated all the time with new information and upcoming events.” A former City of Vancouver senior planner reiterates, “each one has its pros and cons, and you gotta see what works for you.”

In addition to ongoing maintenance efforts and general disruptiveness is, like traditional processes, online engagement can be coopted, “where interest groups attempt to influence the debate without revealing their agenda” (Bittle et al., 2009, p. 4). This is known as ‘sock-puppetting’. It remains to be proven whether eliminating anonymity by connecting identity to physical location—like on PlaceSpeak—can solve it.

Third, after the online conversation occurs and information has been produced, there remains the issue of what is to be done with it. “If you put a map online and you want people to show you locations for new housing types. You’ve got to have a whole lot of time to take that data, download it, and analyze it” noted one City of Vancouver senior planner. When data isn’t properly analyzed and put to use, writes Lee Siegal (2008, p. 5) the process becomes a form of placation: “a way to keep the most creative, intelligent, and original voices from being heard.” By contrast, when data is put to use, “planners still must address the serious question of the quality of the volunteered data” (Evans-Cowley, 2010b, p. 144). In other words, whether the input is fair and useful, let alone creative, intelligent, and
original. A number of researchers have attempted to propose solutions (Flanagin & Metzger, 2008; Bishr & Mantelas, 2008) but these concerns remain.

Fourth, for an online process to be carried out, technical skills must be fostered internally or commissioned on a case-by-case basis. Jennifer Evans-Cowley & Maria Manta Conroy (2006, p. 97; Conroy & Evans-Cowley, 2005) foresaw that the adoption of online technologies would require “technical expertise not found within a typical municipal planning department.” They in fact note that that most of the over 600 municipal governments they surveyed in 2000 had no staff “devoted to information technology” (Evans-Cowley & Conroy, 2006, p. 97). Today, this is a requirement, which is achieved at the cost of training existing staff, acquiring new staff, seeking outside assistance, or any combination of which (Conroy & Evans-Cowley, 2005).

3.3 Enhanced Interaction

Second Life cannot only provide new and exciting avenues for genuine public participation in civic affairs, but it has the potential to change the very nature of civic involvement through greater intimacy and enhanced communication.
Justin B. Hollander, ‘Virtually Improving Real Living’ (2007, para. 6)

The final argument in favour of new media in planning is that it will enhance interaction. There are three reasons why. First, technological advancements have improved the way we communicate among each other, facilitating the exchange of more information among more people. Second, information can be transmitted more quickly, often instantaneously. And third, interaction online is done within a richer media environment, which is a qualitative improvement on face-to-face communication.

First, in his decade-long examination of arguments for and against the Internet, researcher Adam Thierer (2010, p. 64) has come to believe that, despite a number of
contentious issues, the Web’s overarching benefit is its ability to communicate information in ways never before seen; “that’s the world we occupy today: one of unprecedented media abundance and unlimited communications and connectivity opportunities.” Thierer (2010, p. 71) believes that “the Internet and new digital technologies empower and enlighten individuals and, therefore, generally benefit society.” He isn’t alone in his beliefs. It has long been thought that technological advances would democratize the flow of information in planning (Sawicki & Craig, 1996). But never has enlightenment through advancements in communications technology been more emphasized than today—in a recent survey of 82 North American municipalities, ‘communicating information to the public’ was the most cited reason for employing new media in planning (Epp, 2012).

Facilitated by the more participatory Web 2.0 Era, it is said that citizens are interacting more, both with each other and with their municipalities (Foth, Bajracharya, Brown & Hearn, 2009). Wood and Landry (2008, p. 204) explain this is because today’s “web provides multifarious opportunities for two-way communication and influence as well as diverse and unpredictable ‘bottom-up’ cultural phenomena. The web is not simply a medium of content delivery but also a mode of content production in which many can participate.” Foth et al. (2009) have summed this up as this age’s ‘neo-planning paradigm’, which doesn’t just enable more connectivity, but encourages deeper public engagement. Evans-Cowley (2010a) explains this deeper engagement as a distinct kind of “intimacy,” which she argues is “enabling planners to make deeper connections with the public, thereby encouraging greater interaction.” Epp (2012) concurs, stating further that because these new developments “enrich” the “flow” of information between residents and decision-makers, decision-making is improved.
In a way, the celebration of what technology enables in planning is a response to a more than decade old concern over the institutionalization of local decision-making, that “public participation had become formalized, institutionalized, and some would claim, sterilized” (Warriner, Madden, Lukasik and McSpurren, 1996, p. 254). Conroy and Evans-Cowley (2005, p. 76) reiterate the concern more recently: “institutionalization of the participation process, as found in traditional public meetings, limits the time and extent to which an individual can learn about a complex public issue.” Technological advances have been seen as the solution to the limitations of traditional public events since the early days of online participation, where enhanced interaction was initially said to occur through the online medium’s more effective debating structure (Lenk, 1999). Trechsel et al. (2003, p. 3) were certain that the ‘enhanced’ nature of these new spaces of “information and deliberation,” would be proven by the public’s superior “quality of opinion formation.” Proven or not, the notion of “improving public understanding” (Abs & Gardner, 2003, p. 19) through technological innovation has supported the implementation of so-called enhanced forms of interaction in municipal processes to this day (Weber et al., 2003; Evans-Cowley & Conroy, 2006).

Second, interaction in real-time is a commonly cited advantage of online participation (Evans-Cowley, 2010b; Lane, 2011; Lennertz, 2011; Hollander, 2011; Epp, 2012; Nyame-Mensah, 2012; Lambie & Michaluk, 2012). For Lambie and Michaluk (2012, p. 1) “the most practical incentive for municipalities is the ability for social media to transmit and disseminate information very quickly.” For Hollander (2011, p. 590), among the numerous online participation strategies, “foremost of which is to collect information anonymously and quickly”—often in the form of an instant poll among workshop
participants.” For Lane (2011), although it’s not explained why, as the speed of interaction increases so does the fairness of the process: new media “not only presents the city as ‘hip’ and ‘modern’, but also ultimately creates policy that better serves the needs of the people, especially when the people are inputting information as it happens in real time.” And for Evans-Cowley (2010b, p. 408) the real-time sharing of pictures, videos, and links within webpages encourages “greater interaction,” which, beyond producing fairer outcomes, as she has argued, has a number of additional advantages. For example, the ‘real-time city’ is a benefit to citizens because they can do things like “easily find directions to the nearest restaurant” when they’re in transit; and urban space is more understandable when citizens are constantly receiving location sensitive information about their surroundings (Evans-Cowley, 2010b, p. 139).

William Mitchell (2005) has long argued that the ‘real-time city’ is a great benefit to urban researchers. Taken further, a citizen’s mobile phone becomes a sensory device, sensing information about the urban environment and transmitting it for real-time dissemination and analyses (Cuff, Hansen, & Kang, 2008). Evans-Cowley (2010b, p. 141) agrees: “pervasive sensing of urban phenomena” would “support planning.” She (2010b, p. 140) elaborates, “ideally, urban documentation would be much more pervasive, with technology being everywhere at all times. Such dense ‘sensing’ of city life is participatory in that lay persons can be documentarians who can reveal much more detail about, and help us extract trends in, the interrelationships between various activities and the built environment.”

Third, as Wood and Landry (2008, p. 205) write, “as the web becomes more sophisticated through the use of multimedia and hyperlink connectivity, it considerably
enriches the ways in which users may communicate and share information and feelings.”

The belief that multi- or richer media is more effective than traditional media in achieving fair planning processes has been held for some time now (Al-Kodmany, 1999; MacPerhson, 1999; Elwood, 2000; Kyem, 2000; Geertman & Stillwell, 2004; Conroy & Evans-Cowley, 2005; Conroy & Gordon, 2004; Conroy & Evans-Cowley, 2006; Hanzl, 2007; Hollander, 2007; Ceconello, 2008; Hollander, 2011). And the belief is supported in three ways: richer media is “more readily received,” more universally understood, and more reflective of reality (Conroy & Evans-Cowley, 2006, p. 372).

More than two decades ago it was put forth by Simons (1987, p. 5) that “the degree to which information is truly usable by the public, and consequently, the degree to which participation is possible, may well be a result of how that information was presented.” Because rich media is said to act as a ‘common language’ for a diverse group of participants (Al-Kodmany, 1999) it can effectively render planning processes more inclusive (Elwood, 2000) while placing all involved on a more equal footing (Kyem, 2000) and removing barriers between planners and participants (Hanzl, 2007; Gurstein, 2010, Sandercock & Attili, 2010; Senbel & Church, 2011). As Senbel and Church (2011, p. 425) have found: “The imagery becomes a common language between technical and non-technical participants and allows for better communication and increased design awareness, making the planning process more equitable.” Some are willing to extend the argument further. For example, Ceconello (2008) believes: the richer the media, the better its representation of reality. At its richest, media are “able to function as true virtual prototypes endowed with behavioural and performance similarities” (Ceconelo, 2008, p. 271).
3.3.1 Sending Participants Online

Planners have been striving to enhance meaningful citizen involvement in planning processes for over forty years [...] The potential for e-government to enhance citizen participation experiences makes it an enticing tool for planners. Maria Manta Conroy and Jennifer Evans-Cowley, ‘E-participation in Planning’ (2006, p. 371, 382)

The emphasis on finding better ways to communicate with the public is no doubt a result of planning’s epistemological shift. This shift, which followed widespread resistance to urban renewal in the late 1960s, can broadly be described as away from a positivist ‘rational comprehensive’ model and toward a more collaborative ‘communicative’ model. Communicative planning theory is most commonly based in Habermasian critical theory, known as ‘communicative rationality’, whereby consensus is sought through egalitarian debate which requires four speech conditions (Habermas, 1984). “Speech must be comprehensible to everyone, speech must use logic and evidence, speech must be sincere, and speech must be legitimate” (Hollander, 2011, p. 588). As Laura E. Tate (2009, p. 35) writes in her analysis of regional planning in Metro Vancouver, “theorists and practitioners alike have highlighted communicative planning as the dominant process paradigm.” And today, it can be seen as the strongest planning theory available (Allmendinger & Tewdwr-Jones, 2002; Allmendinger, 2009).

In his critique of positivism, John Forester (1980; 1985; 1989; 2001) was the first planning theorist to incorporate Habermas’ ideas. At the time, “Forester recognized that powerful interests would consistently create situations where misinformation strongly shaped public dialogue” (Tate, 2009, p. 39). The planner’s power, then, as Forester (1980) noted, was in their ability to facilitate the flow of information between stakeholders. Patsy Healey’s (1997) theory of ‘collaborative planning’ also incorporates Habermas’ ideas. In striving for ‘shared understanding’ among stakeholders, two key themes of Healey’s (1997)
work are: stakeholder empowerment through communicative planning, and the role of the planner as a facilitator of communication. Again, Judith Innes (1992; 1996; 1998) who arguably has had the most direct impact on North American planning practice has clearly stated Habermas’ influence in her theory of ‘communicative planning’. For Innes (1996) participation is at its best when all participants are equally empowered and fully informed. It is only then that the planning process becomes the space where the ideals of democracy are expressed and realized (Innes, 1996). More recently, Innes’ ideas have merged with Healey’s in what is referred to as ‘collaborative planning’ (Innes & Booher, 1999; Innes & Booher, 2010). This collaborative theory incorporates Habermas’ ideas into what is called a ‘DIAD’ theory of ‘collaborative rationality’ whereby participation must fulfill three conditions. First, participants make up a diverse and representative group. Second, participants are interdependent, ensuring everyone needs something from someone else, which nullifies or reduces power imbalances. And third, dialogue is ‘authentic’, meaning it is based in Habermas’ (1984) speech conditions (Innes & Booher’s, 2010).

Hollander (2011), who draws upon the ideas of Habermas, Forester, Healey, Innes, and Booher to advance online participation, argues that communicative planning theory is also dependent on the free flow of information. “Only through open, unfettered dialogue can we understand our collective problems and begin to address them,” writes Hollander (2011, p. 588) who believes that the most open and unfettered dialogue occurs online.

When applied to planning today, communicative theory provides some with the impetus to “transfer traditionally face-oriented or file-oriented tasks to a digital realm,” justifying it as the democratization of communication and therefore of planning processes in general (Conroy & Evans-Cowley, 2006, p. 372). But is it worth considering that sending
planning processes into the digital realm produces more than just desired results?

According to Stockton College history professor Lisa Rosner (2004), technological fixes, in addition to being historically ineffective against social problems because they don’t address root causes, introduce unpredictable effects that often undermine the initial justification for the technology’s use. Does being online produce unforeseen side effects that may actually hinder our ability to express and realize the ideals of democracy? This is the subject of the following chapter.
4 Being Online

Being Online  

Media is the connective tissue of society  
Clay Shirky, *Cognitive Surplus* (2010, p. 54)

In Canada, about 80 percent of the population uses the Internet regularly; in British Columbia, the figure is about 86 percent (Stats Canada, 2010); and in Vancouver, the figure is roughly 90 percent (Hardwick, 2012). In the US, Internet use is just as common: as of August 2012, 85 percent of both male and female adult Americans were said to use the Internet (PewInternet, 2012). For American youth (age 12-17), use is higher: as of July 2011, the figures are 96 percent for boys and 95 percent for girls (PewInternet, 2011).

What does it mean that the vast majority of North Americans are regularly using the Internet? According to one measure, the average North American now spends upwards of ten waking hours each day focused on a digital screen (Council for Research Excellence, 2009; Kaiser Family Foundation, 2010). Is this a good thing? Some think so.

“As we cast our communicative nets wider, searching for contacts to foreign cultures across the globe, the spectrum of voices from otherwise obscure individuals helps us learn tolerance for difference as well as similarities,” wrote Lixl-Purcell (1995, p. 297) during the Internet’s early growth period. A noted benefit of increased screen-time is that cross-cultural relationships would be more effectively established because “skin colours and other biases based on visual factors will be minimized,” writes Simons (1998, p. 14).

These arguments have progressed over time: Pacino (2007, quoted in Wood & Landry, 2008, p. 213) believes the online world “provides anyone the opportunity to engage directly with people of other cultures,” allowing us to raise issues of cultural difference that are difficult to address face-to-face. For Wood and Landry (2008) the
Internet has the “potential to convey intercultural knowledge and understanding to young people” (p. 212) who are said to “mature socially” in the process (p. 213). Even more optimistic is Hollander (2011) who believes new media is such an improvement on reality that it can completely eliminate our inherent biases, as well as other face-to-face communication challenges in public engagement processes—as documented by Forester (1988; 2009)—like exaggeration, posturing, and deception.

Hollander (2011, p. 589) feels that achieving ‘authentic dialogue’ and hence true ‘collaborative rationality’ is “beyond the capabilities of most facilitators and even where it happens it is hampered by the very benefits of face-to-face interaction, which are the frailties of all humans to be susceptible towards prejudice and intolerance of those who are different.” We must therefore enlist new media to reduce our inherent biases. That is, assuming we’re working under the previously established assumption that “technology allows for an entirely new generation of forms and practices of public participation that promise to elevate the public discourse in an unprecedented manner” (Evans-Cowley & Hollander, 2010, p. 397).

It should be noted that Hollander (2011) is clear that his assertions about our inherent biases are based on Stephen Pinker’s *The Blank Slate: A Modern Denial of Human Nature* (2002). The notion that people are inherently biased in face-to-face communication is a conclusion of Pinker’s (2002) overt argument for human nature and against behaviourism. Whether you’re with Pinker (2002) or not, it’s important to note the number of concerns regarding his work: his premise hinges on the claim that human nature is routinely denied today; as such, he is forced to misrepresent the work and positions of others to ensure his premise remains valid; and as a whole, his work unnecessarily revives
the nature-nurture debate by taking an extreme position in it (Bateson, 2002; Schlinger, 2002). Pinker’s extreme position also forces him to dismiss the Internet’s ability to affect our behaviour, like the way we think, for example (Pinker, 2011). It will soon become apparent that this dismissal is at odds with much of the work discussed from here on.

4.1 Enhanced Interaction Biases

Web 2.0 technology personalizes culture so that it reflects ourselves rather than the world around us.
Andrew Keen, ‘Why We Must Resist the Temptation of Web 2.0’ (2010, p. 53)

Internet enthusiast and ‘one laptop per child’ association founder Nicholas Negroponte (1995) coined the term ‘daily me’ in reference to the Net’s ability to tailor its content to each individual user. “Imagine a computer display of news stories with a knob that, like a volume control, allows you to crank personalization up or down,” wrote Negroponte in 1995 (p. 153-154). Chris Anderson (2006, p. 108) would later refer to the daily me as “the catch-all phrase for recommendations and all the other tools that help you find quality” online, explaining that “these technologies and services sift through a vast array of choices to present you with the ones that are most right for you.” Recognizing the personalization of incoming information as a boon to democracy, the daily me concept would inspire a 2004 proposal to create a federal organization that would develop and manage online participation in the US (Tonn, 2004). “Citizens would select their interests, and MyEmpowerNet.gov would use that information to monitor and select relevant information on projects to be sent to the citizen” (Conroy & Evans-Cowley, 2005, p. 77). The “citizen” could then create specialized groups on their favourite topic and invite others to join (Tonn, 2004).
With the rise of Web 2.0, our ‘daily me’ has only gotten better at giving us what we want. “The quantity of information coming our way has exploded, but so has the quality of our filter,” writes Cowen (2009, p. 55). “We all have a ‘daily me’ at our disposal today thanks to RSS feeds, Facebook, Google Alerts, Twitter, email newsletters, instant messaging, and so on,” writes Thierer (2010, p. 74). Another term useful in this discussion, the ‘contact zone’, was coined by New York University professor Mary Louise Pratt (1992) in reference to the space of contact between peoples of differing cultures and ideologies. Pratt (1992, p. 6) describes the contact zone as “the space in which people geographically and historically separated come into contact with each other and establish ongoing relations.” With the help of the daily me, this previously less avoidable zone of contact between people who share differing beliefs can now be sidestepped with the click of a mouse button: “New information technologies make it easier, to an unprecedented extent, for people to expose themselves exclusively to opinions that mirror their own,” note Hargittai et al. (2008, p. 68).

As a historical precedent, when they can, “people selectively affiliate with like-minded individuals,” writes Yale psychiatry professor Bruce E. Wexler (2006, p. 4). Originally called ‘homophily’ in the 1950s (Lazarsfeld & Merton, 1954) this tendency has since been observed in social circles (Marsden, 1987) in political communication (Huckfeldt & Sprague, 1995) and more recently in social media networks (Noel & Nyhan, 2011). Over “the past four or five decades, people are forming romantic and family attachments with people much more like themselves in every way—class, education level, race—than had been the case even a few decades before that,” notes University of Toronto professor of philosophy Mark Kingwell (SFU, 2013). In Marshall McLuhan’s (1962; 1964;
1967) work, this process, which he believed would be enhanced through technological advancement, was foreseen as ‘tribalism’, or, contextualized historically as ‘re-tribalism’. One commonly cited finding, from a study by Gentzkow and Shapiro (2011, p. 1799) is that there is “no evidence that the Internet is becoming more segregated over time.”

Other studies have found, on blogs conservatives are more likely to link to conservatives and liberals are more likely to link to liberals (Adamic and Glance, 2005; Ackland, 2005). The most comprehensive study of this occurrence, which corroborated previous findings, added, in the rare event that cross-ideological linking was present in online sources of political information like blogs, the linking was done mainly to construct straw-man arguments against the material they were linking to (Hargittai et al., 2008, p. 84). In other words, cross-ideological linking online is done on political websites “to reinforce the ideological position of the author by highlighting the ‘obvious’ illogic of the political opposition,” without giving the reader “the substance of that position in more than a cursory manner,” write Hargittai at al. (2008, p. 81). On political websites, hyperlinks, it seems, are unlikely to take us to information that will challenge what we already believe.

Some think the daily me trend is problematic. When we seek affirmation online, “we eliminate the social inputs that bring us news we disagree with,” writes Johnson (2012, p. 69). “The screen becomes not a vein of truth but a mirror of desire,” writes Emory University English professor Mark Bauerlein (2008, p. 137) who notes, online, “reality is personalized.” Bauerlein (2008, p. 221) takes exception because, as he writes, “however intelligent they are, people who think and act within their niche avoid the irritating presence of ideological foes.” In doing so “forgo one of the preconditions of learning: hearing other sides” (Bauerlein, 2008, p. 221). This was highlighted over a decade ago in
Republic.com (2001, p. 16) by legal scholar Cass Sunstein who wrote, “the most striking power provided by emerging technologies [is] the growing power of consumers to filter what they see.” And he didn’t think this was a good thing: ‘enclave extremism’ as a result of “group polarization is unquestionably occurring on the Internet,” wrote Sunstein (2001, p. 89) who argued that this would be accompanied by the weakening of ‘social glue’ and a reduction in ‘group identity’. One of the first to express these concerns, Sunstein (2001, p. 123) predicted that our increasing access to “a system of limitless individual choices, with respect of communications, is not necessarily in the interest of citizenship and self-government,” and would usher in an era of ‘undemocratic-man’.

More recent work supports Sunstein’s predictions. In The Filter Bubble (2011) online activist Eli Pariser argues: because our search results, social media newsfeeds, and daily news have become tailored to our personal ideologies, our viewpoints have become increasingly narrow and less informed. As Princeton associate professor of politics and public affairs Markus Prior reveals in Post-Broadcast Democracy: How Media Choice Increases Inequality in Political Involvement and Polarizes Elections (2007), Americans were in fact more politically informed before recent advancements in communications technology. Prior (2007) believes this is because Americans had no choice where their political information was coming from, and were forced to hear other viewpoints. Back then, the US citizenry was more likely to participate in politics and less likely to be partisan (Prior, 2007). Research on opinion formation has documented an increasing partisan divide among Americans over the last two decades (Nyhan, 2010). A less commonly cited finding by Gentzkow and Shapiro (2011, p. 1799) supports this: “ideological segregation of online news” is “higher than the segregation of most offline news consumption.” If we’re
going online more often than previously, are we not spending more time using a more ideologically segregated medium? It’s important to note that we’re less ideologically segregated when we’re online than when we’re with our neighbours, co-workers and family (Gentzkow and Shapiro, 2011). That said, our social lives are increasingly formed and maintained online on social media that also facilitate homophily (Noel & Nyhan, 2011). Could online homophily be increasing ideological segregation in our offline social lives or is it vice versa? I suspect it’s a combination of the two.

Just as important is an investigation into how citizens arrive at what Gentzkow and Shapiro (2011, p. 1799) refer to as “accurate beliefs.” In his seminal *The Nature and Origins of Mass Opinion* (1992), UCLA professor of public opinion John Zaller revealed that peoples’ opinions on political issues would vary—sometimes counterintuitively—depending on their: receptivity to that particular issue; political awareness; and prior beliefs. Research has more recently shown that people, particularly those who are misinformed or politically partisan or both, don’t change their mind when given factual information that contradicts their beliefs, rather, their preexisting and factually incorrect beliefs become reinforced (Nyhan, 2010; Nyhan & Reifler, 2010; Nyhan & Reifler, 2011).

“There is a substantial body of psychological research showing that people tend to seek consistency,” writes journalist Joe Keohane in the *Boston Globe* (2010, para. 11). ‘Confirmation bias’ is “the psychological hypothesis that once we begin to believe something, we unconsciously begin seeking out information to reinforce that belief, often in the absence of facts,” writes technology advocate Clay A. Johnson in *The Information Diet* (2012, p. 46). Research supports Johnson’s (2012, p. 31) assertion that “people like hearing their beliefs more than they like hearing the facts.” Based in clinical and social psychology,
a neuroimaging analysis of individuals’ ‘political judgment and decision-making’ found that when people are presented with ‘emotionally threatening information’, which is deemed so because it challenges their beliefs, brain activity associated with reasoning decreases and brain activity associated with emotion increases (Westen, Blagov, Harenski, Kilts, & Hamann, 2006). What has variously been referred to as ‘motivated reasoning’, ‘implicit emotion regulation’ and ‘psychological defense’ is the process of seeking affirmation to ease increased emotional brain activity, or, flaring emotions (Westen et al., 2006).

No media enables affirmation more than the Internet, where flaring emotions can be eased with the quickness of a Google search. “This effect is only heightened by the information glut,” writes Keohane (2010, para. 7) who argues that “it’s never been easier for people to be wrong, and at the same time feel more certain that they’re right.” This in itself is worrisome. But responding correctly to factual information is not impossible. Another observation is that research subjects are more likely to change their minds in response to factual information when interacting directly with researchers (Kuklinski, Quiek, Jerit, Schwieder, & Rich, 2000).

4.2 Multitasking or Overload?

Economists argue that, by increasing productivity, technology drives economic growth. Perhaps so, but it also changes the rhythms of life, giving us more things to pay attention to and thinner slices of time to devote to each one. ‘Information overload,’ a term coined by the futurist Alvin Toffler in 1970, is now a chronic condition.
Christopher F. Chabris, ‘You Have Too Much Mail’ (2008, para. 3)

From the 1990s onward, web-use consultant Jakob Nielsen has conducted research, supported by the Nielsen Norman Group (a consulting firm led by Nielsen, a trained engineer, and Don Norman, a cognitive scientist) that follows and analyzes the eye movement of people using the Web. Not long after Nielsen’s research began, it had already
led to one broad conclusion: with all the skipping and skimming, and jumping from page to page, when Nielsen was asked about how people read online his reply was simply: “They don’t” (Nielsen, 1997b).

Nielsen’s eyetracker research has revealed other characteristics of “reading” online, like the tendency for users to click away from challenging material rather than work through it (Nielsen, 2005a). Notably, after eyetracking 232 Web readers, it became clear that, during the brief moments when text was being looked at it was being viewed in an ‘F-shaped’ pattern (Nielsen, 2006). At the top of the screen, much of the text would be viewed horizontally from left to right, but less and less so as the subject’s eyes moved down the page—the eyes of people reading online move across the page in pattern that roughly resembles an “F” (Nielsen, 2006). “That’s how users read your precious content. In a few seconds, their eyes move at amazing speeds across your website’s words in a pattern that’s very different from what you learned in school” (Nielsen, 2006, para. 1). Only 16 per cent of web users were found to read in a traditional linear fashion (Bauerlein, 2008).

What Nielsen (2005c; 2011) has learned through years of research is, if one wants to ensure their online content is viewed: “superior words” should be eliminated and vocabulary should generally be reduced to words understood by those at the lowest levels of language comprehension; paragraphs should contain only one idea, to make text more skimmable; and “language should be objective and evidence-based so that users don’t suffer that added cognitive burden of distinguishing fact from bias and exaggeration” (Bauerlein, 2008, p. 151). ‘Non-scannable text’ remains a problem for web-readers, according to Nielsen’s (2011) most recent top 10 list of mistakes in web design. He
stresses: “write for online, not print” by using bulleted lists, highlighting key words, and writing in short paragraphs (Nielsen, 2011, 4. Non-Scannable Text, para. 2).

Similar research by Stanford University and the Poynter Institute (O’Toole, 2000) supplements Nielsen’s findings. In their study involving 67 participants there were two key findings: one, participants “frequently engaged in ‘interlaced browsing,’ that is, opening several windows and hopping back and forth, reading a bit on one site, then a bit on another, then returning for more to the original, then opening a new window” (Bauerlein, 2008, p. 145); and two, “users preferred news briefs to full articles by a factor of three to one,” only looking at “about 75 percent of the text, and “ignoring details” (Bauerlein, 2008, p. 144).

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Though traditional forms of learning like reading words, sentences, paragraphs, and hence arguments in their intended sequence, do not occur online, for many this isn’t cause for concern. This is due to a belief that other, more relevant cognitive skills are being developed. According to EDUCAUSE researcher Melody Childs (2008, p. 2), it’s “self-evident” that the more dynamic Web environment is producing a generation of ‘digital natives’ that “are in fact digital cognoscenti, sophistcates, and perhaps even digital connoisseurs.” Where do these praise-worthy abilities come from? As Scott Carlson wrote in The Chronicle of Higher Education (2005, p. A34), and as Ronald Noel Beyers plagiarized in the journal of Educational Technology & Society (2009, p. 220): “raised amid a barrage of information, [youth today] are able to juggle a conversation on Instant Messenger, Web-surfing session, and an iTunes playlist while reading Twelfth Night for homework.” In other words, “immersion in digital technology has taught this generation to switch very quickly between one line of thought and another,” writes Internet business consultant Don Tapscott (2009, p. 92), celebrating what he calls the “Net Gen ability to multitask.” The result is “today’s students think and process information fundamentally differently from their predecessors,” as futurist Marc Prensky (2001a, p. 4) has believed for more than a decade. They “are used to receiving information really fast,” he writes.
Bauerlein (2008, p. 84) summarizes the logic of the ‘adaptation to the Internet’ thesis: “Individuals who’ve grown up surrounded by technology develop different hard-wiring, their minds adapted to information and entertainment practices and speeds that minds maturing in pre-digital habitats can barely comprehend, much less assimilate. That’s the claim. Screen time is cerebral, and it generates a breakthrough intelligence.” The claim is widespread and persists to this day. Research, however, doesn’t support it.

“Psychologists have been interested in cognitive multitasking for decades. Most studies have suggested that engaging in simultaneous activities (particularly involving unfamiliar or unpracticed tasks) decreases performance level,” writes American University linguistics professor Naomi S. Baron (2008, p. 37). There are two reasons for this: first, our cognitive load imposes real limits on our ability to function online; and second, multitasking isn’t what we think it is.

Our ‘cognitive load’ is the amount of incoming information that can be managed by our ‘working memory’. At any given point in time, our working memory is able to hold only a small amount of information in the form of, for example, incoming issues and concepts. For these issues and concepts to be transferred, albeit slowly and steadily, into our long-term memory where they can be permanently stored as personal knowledge, they must be kept in our working memory for some time (Sweller, 1999). But when the incoming information exceeds the capacity of our working memory, we cease to transfer much of it into our long-term memory (Klingberg, 2008). This is ‘cognitive overload’. And when we experience cognitive overload, it also becomes harder for us to filter what exactly is going into our long-term memory, to distinguish between necessary and frivolous information, and to fully comprehend the issues and concepts we’re grappling with; what is more, all of
these difficulties are intensified as the subject matter becomes more complex or when the information source becomes richer (Sweller, 1999).

As an example, hyperlinks, or what Web 2.0 guru Tim O’Reilly (2005, p. 2 Harnessing Collective Intelligence, para. 2) refers to as “the foundation of the Web” is also its most foundational form of information enrichment. Research has demonstrated how cognitively demanding it is to navigate text interspersed with links (a word or string of words often underlined and coloured blue), how links disorient the reader and obstruct learning, and how links decrease one’s comprehension and memory of whatever the text is meant to communicate (Zhu, 1999; Niederhauser, Reynolds, Salmen, & Skolmoski, 2000; Miall & Dobson, 2001; DeStefano & LeFevre, 2007). By contrast, information presented in plain text enables higher information acquisition, comprehension, and retention (Rockwell & Singleton, 2007).

Being online imbeds us in what sci-fi writer Cory Doctorow (2009) and a subsequent number of others have termed, an ‘ecosystem of interruption technologies’: hyperlinks, images, videos, sounds, games, instant messaging, emails, social media alerts, and so on. As science writer Clive Thompson writes in the New York Times Magazine (2005, para. 10), “our software tools were essentially designed to compete with one another for our attention, like needy toddlers.” While some believe, with practice, we can learn to effectively divide our attention among all of our interruption technologies, rendering multitasking an efficient way to expose ourselves to information, this has yet to occur.

Why? Put simply, people cannot multitask. “Research tells us there is no such thing as multitasking—that all we can really do is task switch,” writes Rosen (2012, p. 106). In other words, we cannot perform two cognitive tasks at once, as multitasking is commonly
understood. For example, “reading e-mail while talking on the phone actually involves reading and then chatting, chatting and then reading,” writes Maggie Jackson in *Distracted: The Erosion of Attention and the Coming Dark Age* (2008, p. 77). This back and forth produces what psychologists call ‘switching costs’ (Rubenstein, Meyer, & Evans, 2001). Jackson (2008, p. 79) explains: “no matter how practiced we are at either of the tasks we are undertaking, the back-and-forth produces ‘switch costs’, as the brain takes time to change goals, remember the rules for the new task, and block out cognitive interference from the previous, still vivid activity.” These residual effects can extend cognitive overload to long after the last task was switched away from (Hummer et al., 2010).

“Working memory is the achilles’ heel of multitasking,” writes Jackson (2008, p. 90), “we have a remarkably limited cerebral storehouse for information used in the daily tasks of life.” Even users that are said to have high computer-literacy are distracted as they attempt to read online or wade through documents laden with hypertext (Wecker, Kohnlet, & Fischer, 2007). It’s a biological limitation that cannot be overcome through practice (Dingfelder, 2005). “There is only a limited amount of blood available in your brain, which correlates with a limited amount of neuronal processing at any given time” (Rosen, 2012, p. 203). And this “neural network of frontal lobe areas acts as a central bottleneck of information processing that severely limits our ability to multitask” (Dux, Ivanoff, Asplund, & Marois, 2006, p. 1109). As renowned experimental psychologist David Meyer says of his research on the subject, “you can train until you’re blue in the face and you’d never be as good as if you just focused on one thing at a time. Period” (quoted in Jackson, 2008, p. 79-80).
This has been proven in an observational study by psychologist Larry D. Rosen (2012, p. 116) who found that when subjects were asked to take a test, “students who received and responded to eight texts scored significantly worse on the test—about one letter grade—than those who got either zero or four text messages.” Rosen (2012, p. 120) has also found that if “students checked Facebook just once during their 15-minute study period they had worse grades.” A UK study meanwhile found that IQ levels dropped ten points when tests were written in the presence of communications distractions (Hewlett Packard, 2005). And another found students’ memory of lecture material would be degraded if they did Internet searches or communicated online during class lectures (Hembrooke & Gay, 2003). “The bottom line is that at least for many cognitive tasks, we simply cannot concentrate on two things at once and expect to perform each as well as if we did the tasks individually,” writes Baron (2008, p. 217).

Todd Gitlin (2002, p. 54) observes, “the tendency has been toward performing as many functions as possible in the course of one’s movements—‘multitasking’—so that as we move, new accessories become mandatory.” Baron (2008) explains multitasking is the purpose, or as she describes it, an ‘affordance’ of technological advancement. For example, “an affordance of mobile phones is that they allow us to roam around, not tethered to a landline connected through actual telephone wires (Baron, 2008, p. 32). One way to magnify the affordances of language technologies is to multitask,” making it “widespread in contemporary society, especially when using computers.” As a result, as Johnson (2012, p. 4) notes we’re “likely to spend upwards of 11 hours a day consuming information” in an environment where multitasking/task-switching is maybe the goal and definitely the outcome.
What is the effect of widespread immersion in distraction? “Our high-tech revolution has plunged us into a state of continuous partial attention” write UCLA psychiatry professor Gary Small and co-author Gigi Vorgan (2008, p. 92) who note that “we are keeping tabs on everything while never truly focusing on anything.” Turing incoming information into serviceable knowledge involves “meaningfully relating it to other information, preferably not too quickly,” which “can take days and even months to accomplish” (Jackson, 2008). Taking time is essential because contextualizing knowledge requires not just information acquisition, but listening, contemplation, and reflection in repetitive “elaborative rehearsal” (Wixted, 2005). Because patient, repetitive learning is the Web’s antithesis, it shouldn’t come as a surprise that increased computer use is not necessarily correlated with the development of language or other academic skills.

4.3 Language Skills and Neuroplasticity

Our growing use of the Net and other screen-based technologies has led to the ‘widespread and sophisticated development of visual-spatial skills.’ We can, for example, rotate objects in our minds better than we used to be able to. But our ‘new strengths in visual-spatial intelligence’ go hand in hand with a weakening of our capacities for the kind of ‘deep processing’ that underpins ‘mindful knowledge acquisition, inductive analysis, critical thinking, imagination, and reflection.’” Nicholas Carr, The Shallows (2010, p. 141)

Near the end of the dot-com era, in a study for the Heritage Foundation, Kirk A. Johnson (2000, Results of the Analysis, para. 29) found: “students with at least weekly computer instruction by well-prepared teachers do not perform any better on the NAEP [National Assessment of Educational Progress] reading test than do students who have less or no computer instruction.” Since, students’ exposure to computers and the Internet has not only been less promising, but has actually been proven detrimental to learning.
Corresponding with the rise in Internet-use, the National Assessment of Adult Literacy had found that adult literacy had been declining since the 1990s—a drop of about 10 percent in ‘proficiency’ (from 40 to 31 percent) from 1992 to 2003 (National Center for Education Statistics, 2012). Meanwhile, high-school seniors performing at below-basic for their level of education rose from 20 to 27 percent from 1992 to 2005 (Bauerlein, 2008). Around the same time the National Assessment of Educational Progress (NAEP) also found only 24 percent of high school seniors were “capable of composing organized, coherent prose in clear language with correct spelling and grammar” (Hurwitz & Hurwitz, 2004, p. 16). Again according to the NAEP, teachers themselves were now more likely to lack writing skills, which along with the other findings, could be attributed to less time spent writing, and more time spent using new media (Baron, 2008).

Fuchs and Woessmann (2004, p. 374) would confirm these suspicions regarding computer use: “availability of computers at home is negatively related to student performance in math and reading, and the availability of computers at school is unrelated to student performance.” And in an appraisal of federal subsidies for Internet access in public school, economists Austan Goolsbee and Jonathan Guryan (2006, p. 62) would have similar findings: from 1997 to 2001, US schools with Internet access rose from 55 to 85 percent yet “the additional investments in technology […] had no immediate impact on measured student outcomes.” What is more, when students spent more time online, “the estimated effects go down, not up” (Goolsbee & Guryan, 2006, p. 65). And then in Texas, analyzing the outcome of $14 million in federal funds directed towards wireless technology in Texas middle schools as part of the 2004-2007 Technology Immersion Pilot, the Texas Center for Educational Research (2009, p. 47-48) found: “There were no statistically
significant effects of immersion in the first year on either reading or mathematics achievement;” meanwhile, the provision of laptops failed to create opportunities for students to experience intellectually challenging lessons or do more challenging work.

By 2007, the National Center for Education Evaluation and Regional Assistance had performed a comprehensive examination of the effectiveness of ‘reading and software products’ in 132 elementary and secondary schools, finding, “test scores were not significantly higher in classrooms using selected reading and mathematics software products.” The results are even less impressive when it’s understood that the 16 products reviewed (12 of which had received or been nominated for awards) were selected as the best—based on observed effectiveness—among a total of 160 (National Center for Education Evaluation and Regional Assistance, 2007).

That same year it was reported in the New York Times, in New York State’s Liverpool Central School district (one of the first in the US to give students laptops) that, according to the school board president, “after seven years, there was literally no evidence [computing programs] had any impact on student achievement—none” (Hu, 2007, para. 5). The same was found in a Richmond, Virginia high school, and in public schools in Broward County, Florida (Bauerlein, 2008). Meanwhile, in Scotland, where roughly £150 million was spent on integrating computers into student work at public schools, for “learner progress and outcomes” the Scotland Inspectorate of Education’s (2007, p. 43) investigations found, “no evidence of increased attainment, in formal qualifications or against nationally defined levels, that could be directly attributed to the use of ICT in learning and teaching.”

But all wasn’t lost, despite no gains in traditional language skills, the Scotland Inspectorate of Education (2007) found multimedia communications skills were gained. As
EDUCAUSE’s (2006) study of ‘Undergraduate Students and Information Technology’ found, these gains aren’t always sufficient: in 2006 “many students entering college lacked the information-technology skills necessary to perform academic work” (Bauerlein, 2008, p. 115). Nielsen’s (2005a) research on teens aged 13 to 17 has also demonstrated teens generally haven’t shown they have the reading ability, research skills or patience to navigate the Web in an effective way. They were worse by about 11 percent at completing ordinary tasks online than adults (Nielsen, 2005a). Another test, where a younger group (18 to 21 year olds) and an older group (35 to 39 year olds) were each given 90 seconds to complete a simple task on their computers, it was found that the older group was more efficient at completing tasks while being interrupted (by a phone call, a text message, or an instant message). According the head of Oxford University’s Institute for the Future of the Mind, Martin Westwell, who conducted the experiment: “the older people think more slowly, but they have a faster fluid intelligence, so they are better able to block out interruptions and choose what to focus on” (Lohr, 2007, para. 16).

While research tells us our cognitive load puts real limits on our ability to multitask, another curious finding in multitasking research is this: those who multitask more are actually worse at multitasking than those who do it less. “Heavy multitaskers are distracted by the multiple streams of media they are consuming,” while “those who infrequently multitask are more effective at volitionally allocating their attention in the face of distractions,” write Ophir, Nass and Wagner (2009, p. 15585). And while those who spend more time engaged in distracting activities, like using a computer, don’t become better at multitasking, they also become less adept at activities they are practicing less frequently—those requiring focused concentration (Cowan, 2005).
Neuroplasticity, also known as brain plasticity, is often described by Hebb’s (1949) rule: ‘cells that fire together, wire together’. Neural cells fire together when we engage in an activity. They eventually wire together in response to us engaging in that activity repeatedly. What this means is our brains undergo physical change in response to the activities we engage in most often (Pascual-Leone, Amedi, Fregni, & Merabet, 2005). “Studies show that our environment molds the shape and function of our brains” (Small & Vorgan, 2008, p. 83) which are “adapting to even small shifts in our circumstances and behavior” (Carr, 2010, p. 31). “The printing press, electricity, telephone, automobile, and air travel were all major technological innovations that greatly affected our lifestyles and our brains in the twentieth century” (Small & Vorgan, 2008, p. 88). In the twenty-first century, it’s the Internet that’s greatly affecting our brains. The amount of grey matter in our brains can actually diminish as more time is spent online (Rosen, 2012).

When we’re inhabiting the new media environment, we wire our brains for the circumstances and behaviour we’re engaged in (distraction). Meanwhile we get worse at what we’re not engaged in (concerted study). “Neuroplasticity has the power to produce more flexible but also more rigid behaviors,” writes accomplished psychiatrist Norman Doidge in The Brain That Changes Itself (2007, p. xx). The flexibility Doidge speaks of makes it easy for us to engage for long periods of time in less demanding, attention-dividing activities. And the rigidity makes it difficult for us to re-train the ability to engage in tasks requiring focus and mental effort once that ability’s been lost (Carr, 2010). Especially as we age (Wexler, 2006). The ‘plastic paradox’, as Doidge (2007) terms it, explains why language and other academic skills are diminishing—new media don’t require us to either develop or maintain them.
For example, research has also shown that the Web doesn't expose us to a wide variety of words and thus allow us to internalize them and then practice their use, spoken or written (Cunningham & Stanovich, 1998). Meanwhile our use of the Internet displaces media that does, like newspapers and books (Carr, 2010). “Even if we grant that visual media cultivate a type of spatial intelligence, they still minimize verbal intelligence, providing too little stimulation for it, and intense, long-term immersion in it stultifies the verbal skills of viewers and disqualifies them from most every academic and professional labor,” writes Bauerlein (2008, p. 130). A strong vocabulary, which is essential for the expression of and understanding of complex ideas through language, is seen by some to be the basis for understanding literally anything. As New York University professor of education Neil Postman and Queens College associate professor of education Charles Weingartner (1969, p. 102) write, “almost all of what we customarily call ‘knowledge’ is language. Which means that the key to understanding a ‘subject’ is to understand its language.” They explain: “What is biology (for example) other than words? If all the words that biologists use were subtracted from the language, there would be no ‘biology’” (Postman & Weingartner, 1969, p. 102). Taken further, “language is the medium through which we discern and deliberate about the good,” writes Harvard professor of political philosophy Michael J. Sandel (2009, p. 196).

As language skills decline, it should come as no surprise that so does the act of reading. That is, in the way it is traditionally practiced, where all words are read in the intended sequence. Reading began to supplant the oral tradition by the Middle Ages. But it wasn’t until around 1454, when a German goldsmith named Johannes Gutenberg automated the production of books with the invention of the printing press, that books
became affordable and plentiful (Mumford, 1934). Not even two hundred years later, the printing press’s profound effect on humanity had already been felt. Francis Bacon writes ([1620] 2000, p. 1000) "no empire or sect or star seems to have exercised a greater power and influence on human affairs." As reading increased in popularity, the amount of words in the English language grew from a few thousand to upwards of a million (Ong, 2002). Syntax increased in complexity, and language became more expressive and flexible (Carr, 2010). Human brains became structurally rearranged to read books in a way that, as Elizabeth L. Eisenstein (1980, p. 152) argues, “enriched rather than stunted sensuous response to external stimuli, expanded rather than contracted sympathetic response to the varieties of human experience” Reading “added to our intellectual repertoire,” writes Maryanne Wolf in Proust and the Squid: The Story and Science of the Reading Brain (2007, p. 218).

In 2005, a group of university professors suggested that widespread reading had been a brief anomaly in human history, and that the era of the book reader had come to an end (Griswold, McDonnell, & Wright, 2005). When television watching increased, after the widespread introduction of TVs the 1950s, reading decreased. As the Net asserts its dominance, television use hasn’t decreased, and reading has declined further (Council for Research Excellence, 2009; Kaiser Family Foundation, 2010). Caleb Crain (2007, para. 6) writes in The New Yorker, “we are reading less as we age, and we are reading less than people who were our age ten or twenty years ago.” The loss is not just that people who read books for leisure are more likely to vote, follow politics, and be informed citizens (Bauerlein, 2008). It’s also what Sven Birkets noted in The Gutenberg Elegies (2004): if the
rise of the Net corresponds with a decline in reading and a reduction in language skills, it may also be diminishing our ability to think critically.

“New technology is a kind of Faustian Bargain,” said Postman on PBS’s NewsHour in 1995, “it always gives us something, but it always takes away something important. That’s true of the alphabet, and the printing press, and telegraph, right up through to the computer.” What we may be losing as a result of the computer is language skills that allow us to engage in the type of deep thinking UCLA developmental psychology professor Patricia Greenfield (2009, p. 71), in her review of 40 studies on the effects of media on intelligence and learning, associates with “mindful knowledge acquisition, inductive analysis, critical thinking, imagination, and reflection.” For Carr (2010) if deep reading and therefore deep thinking is lost, so is the capacity for subversive thinking: thinking that attempts to subvert convention and challenge the status quo. Cognitive neuroscientist Jordan Grafman argues that the distracted environment of the Net renders us more likely to support current ways of understanding, rather than challenging them with creative or original lines of thought (Tapscott, 2009; Carr, 2010).

Psychological research, also rooted in the science of neuroplasticity, is revealing what else is being lost when we spend too much time online: “the pathways for human interaction and communication weaken as customary one-on-one people skills atrophy” (Small & Vorgan, 2008, p. 96). Studies of email use have, for example, demonstrated when it is used exclusively, neural networks in the brain that are responsible for reading nonverbal social cues remain underdeveloped (Joinson, 2004). For psychologist Larry D. Rosen (2012) this and other changes to our psyche are worrisome because they are negatively affecting our well-being.
4.4 Mental Well-being

Through the tests of trial and error, our media companies have figured out what we want, and are giving it to us.
Clay A. Johnson, *The Information Diet* (2012, p. 54)

In Rosen’s (2012) research, he’s found that the first way our increased use of new media is detrimental to our well-being, is in their coercing us to use them: “technology itself lures us into using it, sometimes for extreme lengths of time” (p. 70); especially so in “realistically portrayed virtual environments” (p. 71). But even platforms used for information gathering, like websites, “have certain features that make them very appealing and prone to addictive behavior” (Rosen, 2012, p. 71). Johnson (2012) argues, new media manipulates our biological predispositions the way processed foods capitalize on our evolved craving for salt, sugar, and fat. “We should be staring at these dopamine delivery services with as much contempt” as other addictive substances and activities, writes Johnson (2012, p. 76).

According to Rosen (2012, p. 62) “scientists began developing measurement instruments to identify Internet and technology addicts when stories of such fanatics came to the surface in the mid-1990s.” Today, addiction to the Internet is understood as a non-chemical behavioural addiction caused by human-machine interaction (Rosen, 2012). That said, there is evidence that Internet addiction functions bio-chemically like drug addiction, because, among other similarities, it also involves the release of dopamine—every time we click on a hyperlink, go to a new webpage, open an email, read an instant message, and so on (Grant, Brewer, & Potenza, 2006). Uncontrollable overuse of technology, at the expense of activities that may provide more long-term fulfillment, leads to a number of mental health issues. Mobile phone addiction, for example, has been found to cause insomnia, social dysfunction, anxiety, and depression (Jenaro, Flores, Gomez-Vela, Gonzalez-Gil, &
Technology addicts are known to experience anxiety and depression, partly because the act of overuse, by its very nature, intensifies social isolation (Rosen, 2012).

### 4.4.1 Social Isolation

When online communication was still in its relative infancy, a number of social scientists began worrying whether the new technologies would reduce the amount of time we spend face-to-face, would make us lonelier people, or both. Naomi S. Baron, *Always On* (2008, p. 220)

In 1998, Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, and Scherlis, in their journal article ‘Internet Paradox: A Social Technology that Reduces Social Involvement and Psychological Well-Being’, suggested using the Internet caused feelings of loneliness which would lead to depression. In 2002, Kraut, Kiesler, Boneva, Cummings, Helgeson, and Crawford, revisited the study and modified the original conclusion, suggesting Internet users *could* experience “positive effects,” but with the caveat that these positive effects would be more likely to occur in those who were extroverts and/or already had a support network of family and peers. Subsequent research has been more aligned with the initial conclusions.

Researchers studying 4,000 high-school students found ‘hyper-networking’, or, spending over three hours per day using online social networks to be associated with symptoms of depression (Case Western Reserve University School of Medicine, 2010). Similar results were found among college students in Taiwan deemed ‘heavy Internet-users’ (Chen & Tzeng, 2010) and in a number of other studies (Huang, 2010; Morrison & Gore, 2010; Subrahmanyam & Smahel, 2011). In fact, researchers have now had to term a new form of depression specifically related to online social networking. ‘Facebook Depression’ occurs in those who begin to exhibit classic symptoms of depression after
spending time on social networking sites (O’Keefe, Clarke-Pearson, & Council on Communications and Media, 2011). As far as Rosen (2012, p. 89) is concerned, “too much of any form of media might lead to—or, more accurately, might be related to—depressive symptomology.”

While some researchers only go as far proving a correlation between Internet use and depression, others more confidently point to Internet use as the principal mode of causation. In a longitudinal study, analyzing the association between media use and depression in adolescence and young adulthood, which followed 4,142 middle-school and high-school students from 1994 to 2002, more signs of depression were found in 2002 compared with in 1994 when the research began (Primack, Swanier, Georgiopoulous, Land, & Fine, 2009). The elevated instances of depression were understood by the researchers to be caused by increased television viewing and Internet use (Primack et al., 2009). A more recent study, ‘Facebook Use Predicts Declines in Subjective Well-Being in Young Adults’ (2013), seems to further prove causation. Analyzing 82 Facebook users in their late teens and early 20s, Kross et al. (2013) found, when research subjects increased their Facebook use, they reported feeling worse. By contrast, subjects were less likely to feel worse the less often they used Facebook, and were more likely to feel positive the more often they were in the physical presence of other people and received direct social contact (Kross et al., 2013).

“Social isolation clearly increases the risk for depression and worsens its symptoms. Despite the availability of social networks, email, and instant messaging, these electronic communication modes lack the emotional warmth of direct human contact and worsen a person’s feelings of isolation,” write Small and Vorgan (2008, p. 77). Causation is thus explained as a result of a positive feedback loop. The loop is documented as follows.
First, “heavy” Internet users spend about two additional hours physically alone each day compared with non-heavy users (Rosen, 2012). Next, they spend more time online to compensate: “research has shown that those people who use the Internet for communication often do so to compensate for their less-than-satisfying friendships in the real world” (Rosen, 2012, p. 97).

4.4.2 Narcissism

The bottom line is that any technology that allows us to function behind a screen—where people cannot see us and we cannot see them or their reactions to our behaviours—presents numerous opportunities to emulate the characteristics of narcissism.
Larry D. Rosen, iDisorder (2012, p. 20)

Authors of The Narcissism Epidemic (2009), San Diego State University professor of technology Jean Twenge and University of Georgia associate professor of psychology Keith Campbell, explain that the use of online social networks in the Web 2.0 Era “rewards the skills of the narcissist, such as self-promotion, selecting flattering photographs of oneself, and having the most friends” (p. 110). In Rosen’s (2012, p. 19) research, there’s no doubt social media platforms like Facebook, Twitter, blogs, Flickr, YouTube, among others “encourage a sort of narcissism.” This “virtual playground for self-expression” where social networks can be constantly monitored and an audience is always present, as Rosen (2012, p. 19-20) writes, is the ideal facilitator of narcissistic behaviour, or what is clinically known as narcissistic personality disorder (NPD) which “is a pervasive pattern of grandiosity (in fantasy or behavior), need for admiration, and lack of empathy” (p. 17).

Rosen (2012, p. 29) has found that “people of all generations who spent more hours a day using certain media, including being online, sending and receiving e-mail, instant messaging, texting, listening to music, and watching television, were more narcissistic.”
Among them, according to Twenge and Campbell (2009) the ‘Net Gen’, or ‘Millenials’ scored on average, much higher than their predecessors on the Narcissistic Personality Index (NPI). Twenge and Campbell (2009, p. 4) believe, in addition to permissive parenting and celebrity culture, the Internet is a major cause of the ‘narcissism epidemic’ and propose, “understanding the narcissism epidemic is important because its long-term consequences are destructive to society.”

Research has found: lying is more common outside of face-to-face communication (Xu, Cenfetelli, & Aquino, 2011); and jealousy (one of the nine characteristics of narcissism) is more common in those who use social media (Muise, Christofides, & Desmarais, 2009). But perhaps of more concern are the finding of a study observing empathy in more than 13,700 university from 1979 to 2009, where Konrath, O’Brien & Hsing (2011) found major decreases of ‘empathic concern’ as Internet use has increased, in two ways: having concern for others who are less fortunate; and being able to look at an issue from another’s perspective. “With so much time spent interacting with others online rather than in reality, interpersonal dynamics such as empathy might certainly be altered,” write Konrath et al. (2011, p. 188). “There have been significant declines in the number of organizations and meetings people are involved in as well as in the number of average family dinners and friendly visits,” the researchers continue, “people simply might not have time to reach out to others and express empathy in a world filled with rampant technology revolving around personal needs and expression” (Konrath at al., 2011, p. 188).

4.5 Virtual Community

In today’s public places, it is not uncommon to see large numbers of people talking on their mobile phone, resulting in unfocused interactions in which people interact only to avoid bumping into each other. However, this is not the norm, which is more typically a person
talking on his or her mobile phone who is so absorbed in his or her conversation that he or she forgets about the environment.


In *Bowling Alone* Robert Putnam (2000) famously documented America’s decades long decline in social capital and civic participation. Wellman, Haase, Witte, & Hampton (2001) and later Evans-Cowley (2010a) have argued that online interactions may act as a solution to declining social capital as they supplement or replace these interactions. According to Evans-Cowley (2010a), the types of connections fostered by online communities have a “positive” effect on ‘community interaction’ and ‘social capital’ as well as ‘involvement’.

“Nearly all of the most hyped developments on the Web in the past few years have been tools for augmenting social connection,” writes Steven Johnson (2005, p. 123-124) who argues that new media “are augmenting our people skills as well, widening our social networks.” While evidence suggests people skills are *not* being augmented as a result of new media use, Donath and boyd (2004) have been more cautiously optimistic, arguing that while strong ties (bonds between close friends and family) are not necessarily increased online, an individual's weak ties can be. Evans-Cowley (2010a, p. 416) agrees that an individual’s gain in weak ties is desirable for all of us, suggesting that more people with more weak ties encourages the exchange of information between groups that don’t currently have ‘direct links’, “increas[ing] the efficiency of information flows within a larger network.” To some, however, efficiency isn’t necessarily desirable: “Technological change makes society more efficient and less personal,” writes Robert Wright (2007, para. 12) in the *New York Times*. “We know more people more shallowly” (Wright, 2007, para. 12). Is knowing more people more shallowly our solution to a decades long decline in social capital and civic participation?
Drawing from ‘social capital theory’, Rosen (2012, p. 36) describes strong ties and weak ties in relation to the three types of social capital: the first is ‘bonding social capital’, which “comes from our close family and friends,” and “is how we feel a special closeness to and caring from our loved ones;” the second is ‘maintaining social capital’, which is the process of “keeping our old friendships intact so that they may provide support when needed;” and the third is ‘bridging social capital’, which “includes all of our ‘acquaintances,’ or people who we would not necessarily go to for social support but find useful for different purposes, such as providing information.” According to Rosen (2012, p. 37) “less narcissistic people would make use of bonding and maintaining social capital,” and would “gain their gratification in other areas and for other reasons that have less to do with the self and more to do with others;” by contrast, research shows that when we go online, those social networks facilitate “collecting your own social capital,”—the building of weak ties.

Research has found, time spent using the Internet at home is negatively correlated with time spent with friends and family, and on other social activities (Nie & Hillygus, 2002). And Statistics Canada census data has revealed that for every hour Canadians spend on the Internet each day, they spend 30 minutes less with their families and close friends (Veenhof, 2006). Today, about a quarter of North Americans claim to have no trusted friend or confidant and the figure is rising in correlation with increased Internet use (Slade, 2012).

Strong ties are not just a way to secure mutual social support, but have been proven good for both our mental and physical health. “Strong social ties may help keep you alive,” writes Baron (2008, p. 222). “Over a dozen studies have demonstrated correlations between strong social interaction and decreased mortality” (Baron, 2008, p. 222). In one
example, the study ‘Social Ties and Change in Social Ties in Relation to Subsequent Total and Cause-Specific Mortality and Coronary Heart Disease Incidence in Men’ (2002) by Eng, Rimm, Fitzmaurice, and Kawachi supports this assertion. “Psychologists are clear that healthy people should concentrate on bonding social capital (good friends and family) and maintaining social capital (old friends) and downplay those weak ties gained through bridging social capital,” writes Rosen (2012, p. 45-46).

4.5.1 The Death of Interpersonal Exchange


In *The Big Disconnect: The Story of Technology and Loneliness* (2012), Giles Slade documents technology’s over-a-century-long removal of physical, interpersonal interaction from daily life. Starting in 1994, aided by the onset of the Internet, online banking reduced our need to interact in person with a bank teller. And as Pizza Hut pizzas could now be ordered on the Net, meals could be acquired without even telephone interaction. A year later, with the introduction of Amazon.com, more shopping could be done online. First, only books were available. But by 1996, when eBay was launched, literally every consumer good could be purchased without physical interaction (Slade, 2012). Today, we’re more likely to meet our life partners online than in person (Slade, 2012). And in the future, according to former chess champion and author of *Love and Sex with Robots* (2007), David Levy, we won’t even need to waste our time securing people as life partners—robots can do the job just fine.

Slade (2012) recounts that technology has long been decreasing physical interaction among inhabitants of Western cities. The portable music player, which first went on sale in
1978, enabled solitary listening which, “had an impact as profound as that of widespread literacy after Gutenberg” (Slade, 2012, p. 154). Oxford musicology professor Eric Clarke (2007, p. 45) writes, the player enabled “a visible withdrawal from the social context and immersion in an intensely private world.” Not long before then, sociologist Erving Goffman (1963), upon noticing Americans increasingly deploying monophonic earphones (transistor radios) in public spaces, noticed people were no longer greeting or acknowledging each other and termed it ‘civil inattention’. According to Slade (2012, p. 160), “we have been conditioned for over a hundred years to risk interpersonal contact only through the mediation of machines.” “Our cell phones and MP3 players may not have been specifically designed to fill the market niche of excluding strangers, but that is certainly one of their main modern uses, and it is too successful” (Slade, 2012, p. 230). Even work allows us to avoid others. Enabled by advancements in communications technology, on an average day in the US, 60 percent of those who are self-employed, and 20 percent who are employed by others, work from home (Bureau of Labor Studies, 2009). What are often described as ‘telecommuters’ are able to participate in local economies without existing in public space.

Jane Jacobs may have noted this as a significant development. In her influential *The Death and Life of American Cities* (1961) she notes these on-the-surface and somewhat “trivial” face-to-face interactions are what, repeated over time, establishes trust among community members, the so-called social glue that binds society together. “Utterly trivial, but the sum is not trivial at all. The sum of such casual public contact at a local level,” Jacobs (1961, p. 138) writes, “is a feeling of public identity of people, a web of respect and trust and a resource in time of personal or neighbourhood need. The absence of this trust is a
disaster [...] its cultivation cannot be institutionalized.” Trust between humans, like trust between other mammals, is nonrational, and occurs largely through being in each others’ physical presence (Zak, 2008). Let us not forget, face-to-face, we’re also more likely to convince someone to adjust a factually incorrect position, and less likely to be lied to.

As we spend more time ‘telecommuting’ and less time in interacting with others in public space, must we consider that none of above is of concern to many because the notion of ‘place’ is losing importance? Christine Rosen (2007, p. 176) has noticed, “social networking sites of a decade ago used metaphors of place to organize their members: people were linked through virtual cities, communities, and home pages;” in 1997, GeoCities boasted thirty virtual “neighbourhoods.” Today, “social networking sites organize themselves around metaphors of the person, with individual profiles that list hobbies and interests,” writes Rosen (2007, p. 181). Sure, online communication can facilitate face-to-face meetings in real places, as was long ago documented by Howard Rheingold (2000). But the primary concern among those forming relationships online is not in how it will strengthen the social capital of the community they live in, or how it will allow them to spend more time outside with loved ones. It is in how those relationships will improve their personal identity (Donath & boyd, 2004; Gross & Acquisti, 2005; Stutzman, 2006; Dalsgaard, 2008; Tufekci, 2008; Walther, J. B., Van Der Heide, B., Kim, S. Y., Westerman, D., & Tong, S. T., 2008).

With that in mind, Rosen (2007, p. 180) suggests, “perhaps the question we should be asking isn’t how closely are we connected, but rather what kinds of communities and friendships are we creating?” “The desire for community is sufficiently strong for millions of people to belong to entirely fictional communities, such as Second Life and World of
Warcraft,” writes recording artist Brian Eno (2011, p. 126) who notes that the meaning of the term has shifted since the onset of the Internet, from “some sort of physical and geographical connectedness between people” to “the exercise of any shared interest.” This is nothing new. We have long been ‘hoking’ up artificial communities. In fact, much of recent history is “cluttered with such ersatz communities: nations, parties, trade unions, mass movements” (Roszak, 1972, p. 194). The difference today is, facilitated by new media, community has arguably become even more artificial. Being online “makes certain kinds of connections easier, but because they are governed not by geography or community mores but by personal whim, they free users from the responsibilities that tend to come with membership in a community,” writes Rosen (2007, p. 187).

Despite the increasingly well-documented negative side effects that often accompany their use—that they bias us, overload our brains, reduce our ability to engage in cognitively demanding tasks, and make us feel socially isolated as well as behave like narcissists—new media continue to be consistently embraced with enthusiasm in planning and elsewhere. This is also despite the lack of evidence to support the claims that often justify their use. Are we being overly optimistic? As we’ll see, we’ve been overly optimistic in the past.
5 Techno-Optimism

There has hardly appeared a technology that wasn’t praised for its ability to raise the level of public debate, introduce more transparency into politics, reduce nationalism, and transport us to the mythical global village [...] Technologies, it seems, tend to overpromise and underdeliver.


“The last few years of the nineteenth century saw the publication of more than 150 books predicting the imminent arrival of a technological paradise,” writes Nicholas Carr in *The Big Shift* (2008, p. 88). “Electrification, people were told, would cleanse the earth of disease and strife, turning it into a pristine new Eden” (Carr, 2008, p. 88). Some proponents of the new technology claimed electricity would make it “next to impossible to contract disease germs or get hurt in the city,” while others said it would give man “absolute control of the weather” (Carr, 2008, p. 88). For anyone alive today, it’s clear that these predictions never came true, but as Carr writes, they “proved a powerful marketing pitch for the manufacturers of electric appliances” (2008, p. 89).

Voting machines, which have been used in the US since the same time period, have, worse than electricity’s arguably benign failures, been found to work against democratic processes. When voting machines were introduced, they arrived with the same kind of assured benefits that Hollander (2007; 2011) has presented in favour of the online social network Second Life. In a *New York Times* article titled ‘Advantages of the Voting Machine’ (1900) it was guaranteed every vote would be “counted and recorded with a mechanical precision and certainty which no human mind can emulate.” By the 1930s, paper ballots had nearly become obsolete in the US (Slade, 2012). But the dominance of voting machines wasn’t achieved as a result of their measured benefit to society: “their persistence for a
hundred years despite the frequent frauds, deceptions, and failures\(^1\) that are constantly
associated with them,” renders “contemporary America’s reliance on voting machines,

\(^1\) The frequent frauds, deceptions, and failures regarding voting machines are beyond
belief. I leave it to the reader to judge the accuracy of these claims, listed in reverse-
chronological order:

- In 2012, after a post-election random audit by hand recount, Sequoia Voting
  Systems optical vote scanners were found to have declared incorrect results in three
  Palm Beach County, Florida municipal races (wrongly declaring two candidates
  winners). A software “shortcoming” was said to have been the problem and results
  were overturned. Optical scanners are still used across the country and random
  audits are not conducted regularly (Bennett, 2012).
- In 2011, eight Clay County, Kentucky high-ranking election officials were sentenced
  to a combined 156 years in prison for rigging elections from 2002 to 2006 using
  ES&S electronic touch-screen voting machines (Friedman, 2011).
- In 2009, after it was revealed that hundreds of votes weren’t counted in a Humbolt
  County, California election, Premier Election Systems admitted that their central
  tabulation software didn’t record the deletion of votes, which could be done with
  the click of a mouse-button by staff (Trachtenberg, 2009).
- In 2008, a summary report of the results from a Palm Beach County, Florida primary
  found Sequoia Voting Systems optical scanners had left 16,632 votes unaccounted
  for. Earlier that year, it was found that their touch-screen counters had misreported
  vote totals in five counties in a New Jersey primary race when a county clerk
  stumbled across inconsistencies and notified the other counties (Friedman, 2008).
  That same year, the president of Diebold Election Systems (now known as Premier
  Election Systems) admitted their central tabulation software (used at the time in 34
  states) did not count votes correctly, consistently dropping votes (Flaherty, 2008).
- In 2007, California Secretary of State Debra Bowen decertified a number of
  Federally-certified electronic voting systems after a team of experts from the
  University of California, Livermore National Laboratories, and elsewhere,
  demonstrated that the systems in question—made by Diebold, Sequoia, and Hart
  Intercivic—could not ensure accuracy or integrity and their security measures could
  be bypassed in every attempt. The electronic voting systems in question would
  continue to be used throughout the rest of the country (Friedman, 2012).
- In the run up to the 2004 presidential election, under Secretary of State and co-chair
  of the 2004 Bush-Cheney campaign Kenneth Blackwell, Ohio had spent more than
  US$100 million installing electronic voting machines throughout the state. In 2007,
  newly elected Secretary of State Jennifer Brunner announced that a US$1.3 million
  official study found “critical security failures” among the Diebold, ES&S, and Hart
  Intercivic voting systems installed under Blackwell. The study also demonstrated
  that Blackwell’s system could have easily stolen the 2004 presidential election in
  favour of George W. Bush, where exit polls with a margin of error of 1 percent
despite the problems they create, a subject of curiosity,” writes Slade (2012, p. 217).

Looking back on a century’s-worth of overtly irrational disregard for the potentially disastrous problems caused by voting machines, Slade (2012) infers that something else must be driving our decision-making. That something else can be understood as techno-optimism. It has been responsible for our immediate and unfounded enthusiasm for the telegraph, the airplane, the radio, the telephone, the television, and now the computer, as examples:

The telegraph: The Bulletin of the American Geographical and Statistical Society reported it to be an “extension of knowledge, civilization and truth [...] the highest and dearest interest of the human race” (Morozov, 2011, p. 277).

The airplane: In 1915, Flying magazine stated that the airplane would eliminate the causes of war, and WWI would be “the last great war in history.” The telephone: Architect and inventor Buckminster Fuller spoke of the virtues of “telephone democracy,” whereby the phone could be used to improve voting and thus democracy (Morozov, 2011, p. 281).

The radio: In 1982 Collier’s magazine stated “the radio properly used will do more for popular government than have most of the wars for freedom and self government;” Guglielmo Marconi, one of the pioneers of radio, explained, “the coming of the wireless era will make war impossible, because it will make war ridiculous;” and Gerald Swope, predicted John Kerry the Ohio winner and therefore President (Fitrakis & Wasserman, 2007).

• In the 2000 presidential election, an electronic voting machine gave Al Gore 16,022 negative votes in Volusia County, Florida. The discovery led Gore to rescind his concession to George W. Bush. However, the Republican-dominated US Supreme Court quickly ordered against the recount and certified Bush the winner. A third-party statewide recount later revealed that Bush had been wrongly declared victorious over Gore in Florida and thus as President (Fund, 2008).
president of General Electric heralded radio as “a means for general and perpetual peace on earth” (Morozov, 2011, p. 278-279).

The television: Orrin Dunlap (1932, p. 229) one of the New York Times’ first television and radio critics wrote that television “will usher in a new era of friendly intercourse between the nations of the earth.” “When television has fulfilled its ultimate destiny,” said head of the Radio Corporation of America David Sarnoff at the 1939 New York World’s Fair, we will see “a new sense of freedom,” and “a finer and broader understanding between all the peoples of the world” (Morozov, 2011, p. 280). Lee De Forest (1942) meanwhile believed television was such a good medium for instruction that it would improve traffic safety. And even after it had become firmly established in Western life, historian Daniel J. Boorstin (1979, p. 7) wrote, the television would “disband armies,” “cashier presidents,” and “create a whole new democratic world—democratic in ways never before imagined, even in America.”

The computer: As early as 1950 an article in the Saturday Evening Post stated, “thinking machines will bring a healthier, happier civilization than any known heretofore” (Morozov, 2011, p. 281).

“In virtually as cases such high hopes were crushed by the brutal forces of politics, culture, and economics,” writes Stanford researcher Evgeny Morozov (2011, p. 275-276), who adds, “This is not to suggest that new technologies have no influence on public life or democracy. On the contrary, they often mattered far more than what their proponents could anticipate. But those effects were often antithetical to the objectives their inventors were originally pursuing. Technologies that were supposed to empower the individual strengthened the dominance of giant corporations, while technologies that were supposed
to boost democratic participation produced a population of couch potatoes.” Are we to believe new media is any different?

### 5.1 Want Justice? Add New Media

Even tyrants allow their subjects to write love poems or exchange favourite recordings. Lee Siegal, *Against the Machine* (2008, p. 126)

“The Revolution Will be Tweeted” went the first in a series of blog posts by Andrew Sullivan (2009) of *The Atlantic* magazine just hours after protests broke out in Iran in 2009. Twitter appears to be “the critical tool for organizing the resistance in Iran,” wrote Sullivan. In not long, notable right-wing blogger Michelle Malkin, *The Atlantic*’s Marc Ambinder, the *Wall Street Journal*’s Yochi Dreazan, National Public Radio’s Daniel Schorr, and *The New York Times’* Nicholas Kristof had covered the story with the same enthusiasm (Morozov, 2011, p. 2). The well-known Web 2.0 profiteer Clay Shirky would claim the events that followed to be the first revolution by social media, while Harvard Internet law professor Jonathan Zittrain and *Financial Times* columnist John Grapper, among others, expressed similar views (Morozov, 2011). With the now widespread cultural acceptance of social media’s newfound powers, a *Los Angeles Times* headline would read: ‘Tyranny’s New Nightmare: Twitter’ (Rutten, 2009). Meanwhile, a public campaign had been launched to nominate Twitter for the Nobel Peace Prize. Within a year of Iran’s revolution, Twitter’s founders would be describing their invention as not only “a triumph of technology” but “a triumph of humanity” (Weprin, 2010, para. 5).

Twitter’s so-called triumph would be soon be explained by academics. As Harvard Internet law professor John G. Palfrey and Harvard law professor Urs Gasser (2008, p. 256) write “the new mode of activism, made possible by the use of networked digital tools, leads
to benefits for citizens of established democracies, countries in transition, and authoritarian regimes alike.” Palfrey and Gasser (2008), who both hold executive positions at Harvard’s Berkman Center for Internet & Society, argue that tools like Twitter lead to benefits for two reasons. First, they render government action more transparent. And second, they allow all citizens to participate in the telling of public events. Taken together, argue Palfrey and Gasser (2008) more responsive politics are achieved.

While the theory is based in logic—that transparent government activity and increased citizen participation lead to more democratic processes—there is little evidence that this is what Twitter did in Iran. On the eve of Iran’s 2009 elections, 19,325 Twitter accounts were registered in the country, meaning 0.027 percent of the population had an account (Morozov, 2011). Al-Jazeera director of new media Moeed Ahmad notes the station’s fact-checking could confirm only 60 active Twitter accounts in Tehran, and that number was soon reduced to six when authorities cracked down on online communication (Bajkowski, 2010). As an emancipatory tool, “Twitter was massively overrated,” said professor of global media and communications Annabelle Sreberny in an interview with The Guardian (Weaver, 2010). Sreberny, who is considered an expert on Iranian media, said she “wouldn't argue that social media really mobilized Iranians” (Weaver, 2010). Sreberny, with Gholam Khiabany would later explain the revolution, in terms of Iran’s deep cultural history, in Blogistan: The Internet and Politics in Iran (2010). “There is little evidence that Twitter and Facebook or YouTube played a major role in organizing demonstrations. They did become channels through which messages could be sent to international media organisations that had little access or first hand knowledge about what was happening in Iran,” maintain Sreberny and Gholam (2010, p. 175); but “the ‘real’ action
remained on Iranian streets and rooftops.” Explaining why Twitter’s positive impact was overrated, director of Global Voices Hamid Tehrani suggests that “the West was focused not on the Iranian people but on the role of western technology” (Weaver, 2010, para. 4). “Twitter’s impact inside Iran is zero,” said Mehdi Yahyanejad, the manager of a US Farsi-language news site, interviewed by the Washington Post as events were unfolding: “most of it is Americans tweeting among themselves” (Musgrove, 2009, para. 7).

Writing in the New Yorker, Malcolm Gladwell (2010) argues that social media has not and will not facilitate revolutions because large numbers of people connected loosely via weak ties on social media are simply not willing to put their bodies in space and sacrifice their lives for one another. Gladwell (2010) points out that there historical is precedent for revolutions without social media, and that an important characteristic of them is that they were facilitated by the strong ties of a few, rather than the weak ties of many.

Gladwell’s point cannot be dismissed. But a broader point to be taken, this one from Ethan Zuckerman, director of MIT’s Center for Civic Media, is this: what really happened in Iran was the result of a centuries-long sociopolitical process that cannot be reduced to a simple cause and effect application of technology to society (Chicago Humanities Festival, 2011). Morozov (2011, p. 16) explains the methodological error in doing so: “Tweets did get sent, and crowds did gather in the streets. This does not necessarily mean, however, that there was a causal link between the two.” “That virtually any newspaper or magazine today boasts of interviews with ‘Internet gurus’ is a rather troubling sign, for however deep their knowledge of the architecture of the Internet and its diverse and playful culture, it doesn’t make up for the inadequate understanding of how societies, let alone Western
societies, function,” writes Morozov (2011, p. 295). “It’s a sign of how deeply Internet-
centrism has corrupted the public discourse that people who have a rather cursory
knowledge of modern Iran have become the go-to sources on Iran’s Twitter Revolution, as
if a close look at all Iran-related tweets could somehow open a larger window on the
politics of this extremely complicated country than the careful scholarly study of its
history” (Morozov, 2011, p. 295).

The myth that social media was responsible for a revolution persists in popular
Western culture, and imbedded in it is a significant assumption: that new media sides with
freedom and democracy. “The idea that the Internet favors the oppressed rather than the
oppressor is marred by what I call cyber-utopianism: a naïve belief in the emancipatory
nature of online communication that rests on a stubborn refusal to acknowledge its
downside,” writes Morozov (2011, p. xiii). Blind optimism leads to “selective and, at times,
Christian Science Monitor, “where the techno-utopianists are limited in their vision is that in
this great mass of Internet users all capable of great things in the name of democracy, they
see only a mirror image of themselves: progressive, philanthropic, cosmopolitan. They
don’t see the neo-Nazis, pedophiles, or genocidal maniacs who have networked, grown, and
prospered on the Internet.” They never write about, for example, how the Internet has
enabled: cannibals to meet with consenting victims; the Russian white supremacist group
‘Northern Brotherhood’ to be founded; crime gangs in Mexico to post intimidating
information as well as find people to kidnap; and buyers and traders of endangered species
and human organs to connect with each other more easily (Sandel, 2009; Pew Charitable
Trusts, 2010; Morozov, 2011).
The Internet is by no means the source of these specific issues; however, taking online racism as an example, Morozov (2011, p. 260) explains, “the ease, scale, and speed of communication afforded by text messaging makes the brief and previously locally contained outbursts of neo-Nazi anger resonate in ways that they could have never resonated in an era marked by less connectedness.”

But surely the social costs associated with the proliferation of these groups and activities pales in comparison to the benefits of new communications technologies, right? Some would say so. In response to the Communications Decency Act of 1996, which would have imposed the type of regulations on the Internet that already exist on traditional media, an Internet-advocacy piece, originally written as an appeal to the US Department of Justice by the Citizens Internet Empowerment Coalition (CIEC), was published by Wired, a co-plaintiff in the case (Jones, 2011). “The public square of the past,” went the appeal, “is being replaced by the Internet, which enables average citizens to participate in national discourse, publish a newspaper, distribute an electronic pamphlet to the world and generally communicate to and with a broader audience than ever before possible” (Jones, 2011, para. 13). Facing pressure from the CIEC—a group composed of Internet users, civil liberties groups, media publishers, and online service providers—“The Supreme Court eventually found the CDA unconstitutional, an early and important victory for online campaigning,” writes Jones (2011, para. 14). “Unlike television and radio,” said the CIEC (1997, para. 2), differentiating the Internet from traditional media, “every Internet user is a publisher with the capacity to reach millions of people at very low cost.”

Gillmor (2004) has more recently referred to this notion, that anyone can now be a journalist with a global audience, as ‘we-dia’. Shirky (2008, p. 63) celebrates the inclusive
nature of this continued shift away from big media, to a “world in which most forms of communication, public and private, are available to everyone in some form.” As a result, “a new democracy is emerging in which we all have a lead role,” write Don Tapscott and Anthony D. Williams (2007, p. 1).

Is the shift to we-dia in and of itself praiseworthy? According to Yale law professor Jack M. Balkin (2011, p. 240) it isn’t: “people routinely praise the Internet for its decentralizing tendencies. Decentralization and diffusion of power, however, is not the same thing as less power exercised over human beings. Nor is it the same thing as democracy.” Balkin (2011, p. 241), founder and director of the Yale Information Society Project, reminds us: “The fact that no one is in charge does not mean that everyone is free.” Hi-tech start-ups are increasingly offering services in the mobile phone surveillance industry, whereby the activity of users is tracked even after they change their account (Morozov, 2011). And mobile phone networks, to the accuracy of specific geographical regions, can be shut down for political reasons—this was done in Belarus in 2006, in Cambodia in 2007, in Moldova in 2009, and continuously (but sporadically) throughout China (Morozov, 2011).

Foreseeing this type of activity, Stanford law professor Lawrence Lessig (1999, p. 5-6) expresses a cynical view: “We have every reason to believe that cyberspace, left to itself, will not fulfill the promise of freedom. Left to itself, cyberspace will become a perfect tool of control.” That said, “what if the most effective system of Internet control is not the one that has the most sophisticated and draconian system of censorship, but the one that has no need for censorship whatsoever,” asks Morozov (2011, p. 58).
German Democratic Republic propaganda officials learned the effectiveness of open-access to information as a form of censorship decades ago. In post-WWII East Germany, when citizens were given full access via the latest communications technologies to whatever they wanted to know, it was found that they weren't tuning in to NATO's latest news feeds; rather, they were more interested in keeping up with American TV shows like Dallas, Miami Vice, and Bonanza (Meyen & Hillman, 2003; Dittmar, 2004). East Germans eventually indicated in a poll that, in the future, they would prefer more access to entertainment and less access to news (Meyen & Hillman, 2003; Dittmar, 2004). Similar research findings, which included the fact that East German youth who had access to Western television were more satisfied with the GDR-regime, were published in a journal article titled 'Opium for the Masses: How Foreign Media Can Stabilize Authoritarian Regimes' (Kern & Hainmueller, 2009). More recently, according to Forbes, a 2007 initiative led by a pro-open-access philanthropic organization offering Chinese citizens spare Internet bandwidth to access crucial political information online resulted instead in searches for nude photos of Gwen Stefani and Britney Spears (Morozov, 2011). The lesson for authoritarian regimes is: don't waste resources controlling content when mass pacification via open access to distractions can be equally effective.

The 'cute cat principle' was termed by Zuckerman to describe what motivates people to go online in the Web 2.0 Era (Chicago Humanities Festival, 2011). Essentially, it's the notion that entertainment (often literally the imagery of cute cats) is what gets people online. Once online, users can then move away from cute cats to web content that might make them more informed and engaged citizens. Does this to happen? According to Morozov (2011, p. 81) “the Internet has provided so many cheap and easily available
entertainment fixes to those living under authoritarianism that is had become considerably harder to get people to care about politics at all.”

This has proven true close to home as well. In the late 1990s, the American Political Science Association (1998, p. 636-637) stated: “Current levels of political knowledge, political engagement, and political enthusiasm are so low as to threaten the vitality and stability of democratic politics in the United States.” In the 2003 study, Citizenship: A Challenge for All Generations, only about half of 15 to 26 year olds agreed that “paying attention to government and politics,” was necessary for good citizenship, and only two-thirds felt the same about voting (Kurtz, Rosenthal, & Zukin, 2003, p. 3). In 2005, the annual ‘American Freshman: National Norms’ survey, conducted by UCLA’s Higher Education Research Institute, found the number of students who considered it ‘very important’ to follow political affairs was down to 36 percent—in 1966, the figure had been 60 percent (Pryor et al., 2005). Only 7 percent of 18 to 29 year old Americans went online for ‘political news’ (Pryor et al., 2005). Meanwhile: roughly 25 percent of high-school graduates entering college had never read anything—politics, literature, travel, or even sports—outside of school requirements, and 71 percent of them said their reason for attending was “to be able to make more money”—up from 45 percent in 1971 (Pryor et al., 2005, p. 8). In 2006, a survey of the favourite online destinations of 1,300 students at the University of Illinois-Chicago found, 78 percent chose Facebook as their favourite online destination, and 51 percent chose MySpace; only 5 percent said they kept up with politics or other general interest reporting (Hargittai, 2006).

By 2007, the Pew Research Center (2007, para. 1) had uncovered a broad trend: “Since the late 1980s, the emergence of 24-hour cable news as a dominant news source and
the explosive growth of the Internet have led to major changes in the American public’s news habits. But a new nationwide survey finds that the coaxial and digital revolutions and attendant changes in news audience behaviors have had little impact on how much Americans know about national and international affairs. “Even the most open and transparent systems must compete with buckets of information that are more interesting,” writes Johnson (2012, p. 132) who questions what he calls the ‘liberation by facts’ theory in this specific example simply because there’s no guarantee we’ll even get to the facts that are meant to inform our participation in democratic processes.

5.2 Selling Certainty

We have entered the Information Age, traveled the Information Superhighway, spawned a Knowledge Economy, undergone the Digital Revolution, converted manual workers into knowledge workers, and promoted a Creative Class, and we anticipate a Conceptual Age to be. However overhyped those grand social metaphors, they signify a rising premium on knowledge and communications.

Marc Bauerlein, The Dumbest Generation (2009, p. 8)

To question the liberation by facts theory is to question the basis for the Internet, which is “the efficient and automated collection, transmission, and manipulation of information,” writes Carr (2008, para. 25). Placing value on ever-increasing access to, and dissemination of, information is a prerequisite for techno-optimism (Roszak, 1994; Postman, 1999; Carr, 2008; Morozov, 2011; Johnson, 2012). As a result, the Internet’s foremost collector, transmitter, and manipulator of information, Wikipedia, “serves as a microcosm of the broader debate between the optimists and the pessimists,” explains researcher Adam Thierer (2010, p. 69) in his analysis of arguments for and against the Internet. “Almost every major optimist and pessimist tract includes a discussion of Wikipedia,” writes Thierer (2010, p. 69). What follows is mine.
Wikipedia’s factual accuracy, on par with traditional encyclopedias, is a point that has been made by digital media promoter Cathy Davidson (2007) among others. This stems from a journal article written by Jim Giles (2005) for *Nature* that compared 42 articles of the same topic in Wikipedia and Encyclopedia Britannica and found them to be of similar factual accuracy. Is factual accuracy enough of a justification for the use of Wikipedia? Here are four reasons why not:

First, many Wikipedia articles cite academic content to support the entry’s validity. However, the primary academic sources (and notably their research methodology), often simplified, popularized, and thus distorted, as Tel Aviv University researcher Boaz Miller (2009; 2011a) has argued, cannot be verified as they are stored online in journal databases that are not accessible to the general public. This is increasingly significant given the recent proliferation of online “academic” journals that are not exactly exemplars of the traditional peer-review process (Beall, 2012). As such, journal article retractions are now more common than ever, making it increasingly difficult to determine the validity of research when only presented with a citation (WNYC, 2013a).

Second, Wikipedia’s collaborative writing structure can pit those with long-term training and experience in an area of study against those with no such training or experience. Though this can be a great way to stimulate the rigorous deliberation of a complex issue, the final product is not necessarily determined by those with the strongest argument as much as it is determined by those who possess the most free-time, technical-acuity, and persistence (Miller, 2011b). “There is little evidence to suggest that simply having a lot of people freely editing encyclopedia articles produces more balanced coverage,” said the editor in chief of the Encyclopedia Britannica in an interview, “on the
contrary, it opens the gates to propaganda and seesaw fights between writers” (Mangu-Ward, 2007, The Troublemaker, para. 3). As for the reader, they are left to determine whether they are “reading an established person in the field or someone with an ax to grind,” said former president of the American Library Association Michael Gorman in an interview (Mangu-Ward, 2007, The Troublemaker, para. 7).

Third, Wikipedia is vulnerable to tampering by special interest groups. As Morozov (2011) has noted, the CIA has long been known to manipulate Wikipedia entries. And they’re not alone. In 2006, staffers for Rep. Martin Meehan “were caught systematically replacing unflattering facts in his entry with campaign material; in addition to other information, they removed a reference to his broken promise not to serve more than four terms,” writes Mangu-Ward (2007, The Troublemaker, para. 10). Later that same year, officials from the National Institute of Drug Abuse were caught editing their page, removing criticism of the agency (Mangu-Ward, 2007). As well: Microsoft has done it; numerous other politicians have done it; electronic voting machine manufacturer Diebold has done it, deleting detailed descriptions that put serious question into the integrity of their machines; and Wal-Mart with creative spin, has also done it, removing a statement that it pays less than other retail stores and replacing it with one stating it pays nearly double the minimum wage (Borland, 2007). Perhaps the most interesting example of manipulation was documented in 2005 when the founder of Wikipedia, Jimmy Wales, who has been in a number of lawsuits over the proprietorship of the website, was found to have removed former business partner and co-founder “Larry Sanger from the encyclopedia’s official history of itself” (Mangu-Ward, 2007, p. The Troublemaker, para. 9). How much non-newsworthy manipulation on goes unnoticed?
Finally, when authors are not explicitly credited for their work, with their positionality made clear—the understanding that a particular work has been produced by a person with a point of view the reader has been made aware of—it assumes a status of universal truth. Especially when proponents like Giles (2005) and Davidson (2007) are suggesting its truthfulness has been measured and proven. As Baron (2008, p. 125) writes, “the problem is that Wikipedia precludes assuming a point of view. Amassing a set of facts is like having the pieces of a jigsaw puzzle. Possession of the pieces is just the first step. What matters is how you arrange them.” Lost is the understanding that a critical discussion of any concept, event, or person requires a socially diverse set of perspectives, arguably resulting in not one, but a diversity of narratives—not just from a position of power but also from a position of marginalization, and not just from within the zeitgeist of the present but with an understanding and acknowledgment of the past. When less than two-thirds of the world’s population are connected to the Internet, and when entries are being updated and adjusted every few minutes to suit current perspectives, arguably by a group of people with shared values (they value online collaboration and crowd wisdom, for one) it is unlikely the resulting entry represents the global diversity of thought, opinion, and understanding. But this isn’t how the concept of knowledge is meant to be understood under Wikipedia’s terms.

“The goal of Wikipedia is to provide objective knowledge,” writes Baron (2008, p. 120). Articles are written according to these instructions from its founder, Jimmy Wales: “make a list of everything you know. Strike through the things that are not verifiable or not supposed to be covered by Wikipedia. Then, find the proper places to write about the items remaining on the list” (Baron, 2008, p. 123).
According to Baron (2008, p. 123) Wales’ “model of epistemology discards at least two millennia of thinking about the nature of knowledge.” Notably the notion espoused by thinkers like Thorstein Veblen, that “the world was ultimately mysterious and unfathomable, and that therefore the quest for knowledge had no terminus” (Siegal, 2008). Comparing Wikipedia to traditional reference works, Roy Rosenzweig (2006, p. 141) writes, “historical expertise does not reside primarily in the possession of some set of obscure facts. It relies more often on a deep acquaintance with a wide variety of already published narratives and an ability to synthesize those narratives (and facts) coherently.” Rosenzweig (2006, p. 141 suggests “professional historians might find an account accurate and fair but trivial,” and “from the perspective of professional historians, the problem of Wikipedian history is not that it disregards the facts but that it elevates them above everything else.” Birkets (1994) makes the point that we cannot forget what factual information by itself cannot convey: wisdom, experience, intuition, meaning, significance, morality, and foresight.

That Wikipedia can and should act as a way of informing those participating in democratic processes may be more rooted in ideology than in reason. And it’s not just its end result, which is the elevation of facts above reason. It’s a belief in the process of getting there. As Robert McHenry (2004) writes, Wikipedia is a ‘faith-based encyclopedia’, where users expect “some unspecified quasi-Darwinian process will assure that those writing and editings by contributors of greatest expertise will survive; articles will eventually reach a steady state that corresponds to the highest degree of accuracy.” In fact, the process of collaborative crowdsourcing resembles a modern day interpretation of F.A. Hayek’s 1945 essay, ‘The Use of Knowledge in Society’. In it, Hayek (1945 in Mangu-Ward, 2007, para. 4)
celebrates the free market, arguing that it serves “to share and synchronize local and personal knowledge, allowing society’s members to achieve diverse, complicated ends through a principle of spontaneous self-organization.” In 2000, after moving on from his stint as an ‘Internet porn king’, Wales would co-found ‘the first iteration of Wikipedia with business partner Larry Sanger (Mangu-Ward, 2007; Baron, 2008). Wales, a promoter of gun rights and self-declared “first amendment extremist,” “credits Hayek with the central insight that made Wikipedia possible” (Mangu-Ward, 2007, The Pathological Optimist, para. 1). Hayek (1945) advanced the notion—now celebrated by Web 2.0 proponents as ‘the wisdom of the crowd’—that the needs of individuals could be satisfied more efficiently through spontaneous self-organization (than through central planning, for example). He would go on to be the key figure in the popularization of neoliberalism and neoliberal ideology, which also espouses the view that social processes can be understood, known, and predicted with certainty if enough information and technology are present (Rees, 1995; Peck, 2010).

In planning, the notion of certainty in decision-making via information and technology was the basis for the systems approach. “It is no coincidence that the systems approach developed around the same time as computer power became cheaper and more accessible in the 1960s,” writes Cambridge land economics professor Philip Allmendinger (2009, p. 78). At that time, systems planner George Chadwick (1971, p. 300) suggested, “most planning offices now and in the future will need access to at least a small or medium-sized computer as well as more modest equipment such as automatic calculating machines.” According to Davies (1997), the systems approach was most prominent in planning education and practice in the decade following Brian McLoughlin’s Urban and
Regional Planning: A Systems Approach (1969). By the late 1970s, systems planning had largely (but not completely) been replaced by the more collaborative forms of decision-making developed in response to citizen action against urban renewal and top-down planning (Allmendinger, 2009). Systems planning experienced a resurgence during the early growth period of the Internet in the mid-1990s, in Asia’s ‘city informatization’ movement, and more recently in the increasingly popular ‘real time city’ movement promoted by Mitchell (2005), Evans-Cowley (2010b), and other Web 2.0 proponents. Like the systems approach, the real-time city movement celebrates “the notion that computers [provide] a way of ‘testing’ and predicting changes to ‘the system’” (Allmendinger, 2009, p. 190). “While the approach has largely been discredited for its failure to accurately account for and model the complexity of places, systems analysts did not simply die out to be replaced by more political and social perspectives,” writes Allmendinger (2009, p. 190). And neither did the providers of the associated technologies. Especially given the monetary incentives to keep these technologies relevant.

5.3 Business as Usual

Web philosophy is an idiom devoid of objective, impersonal thinking. In 2008, the Columbia Review of Journalism interviewed a man named Clay Shirky about the pitfalls of modern Luddism and the meaning of information overload. Shirky teaches interactive telecommunications at NYU and wrote a book about social media called Here Comes Everybody. In the CRJ interview, Shirky said things like ‘I’m just so impatient with the argument that the world should be slowed down to help people who aren’t smart enough to understand what’s going on.’ This is the message net-obsessed people always deliver; the condescending phrase most uttered by frothing New Media advocates is ‘You just don’t get it.’ The truth of the matter is that Clary Shirky must argue that the Internet is having a positive effect—it’s the only reason he’s publicly essential. Prior to 1996, no one wanted to interview Clay Shirky about anything. Chuck Klosterman, Eating the Dinosaur (2010, p. 224)

Is there any truth to Klosterman’s (2010, p. 224) statement: “the degree to which anyone values the Internet is proportional to how valuable the Internet makes that person”? I came
to believe there might be about a year ago. I was reading a book compiled by *Edge Magazine* editor John Brockman called *Is the Internet Changing the Way You Think?* (2011). What has been referred to since 1998 as the ‘Edge Annual Question’ (Edge Foundation, 2013) was this time raised in the wake of Nicholas Carr’s argument-inducing *The Shallows: What the Internet is Doing to Our Brains* (2010). Debate, and interest, surrounding Carr’s *The Shallows*—a 2011 finalist for both the Pulitzer and the PEN Literary Award—was peaking. Brockman wanted in on the action.

Brockman (2011, p. xxvii) posed the question to what he refers to as “150 of the world’s most influential minds.” After reading what must have been less than a third of the responses, I couldn’t help but notice a pattern. Upon seeing each author’s credentials and affiliations, which preceded their responses, I was able to predict with near certainty whether the writing that followed would express optimism or pessimism regarding the Internet and new media. To confirm this, I re-read the book, recorded each response in detail, analyzed the results, and packaged the work as a term paper for a graduate-level course in planning. These were some of my findings:

Respondents without any professional affiliations were most likely to be pessimistic regarding the Internet’s effect on our thinking. (They were also the most likely to provide references to support their argument.) Respondents who were affiliated with a university were most likely to express mixed feelings. And respondents employed in the private sector, by companies like Google, TED, and Wikipedia, were most likely to be optimistic. This research was by no means done on a random sample. Nor was it groundbreaking. But do my findings at least allow us to consider that organizations and the individuals
employed within them have been presented with powerful incentives to imply value in what they’re selling?

One of the US’s first community networks, the Blacksburg Electronic Village (BEV), was created as a partnership between Virginia Tech, Bell Atlantic, and the Town of Blacksburg (Carrol, 2005). “In Blacksburg’s case, the leading role was taken not by the citizens who used the network, but by the university, companies and administration” who foresaw future profits as a result of their early “research into telecommunication” (Ishida et al., 2005, p. 191). Blacksburg was also seeking to remain competitive in the global economy: “the somewhat xenophobic fear of Japanese networking initiatives that pervaded the US in the early 1990s” also provided motivation for BEV (Carrol, 2005, p. 43).

The City of Bristol partnered with Hewlett Packard (HP) in launching its City website in 1997 (Aurigi, 2005). “In particular, one of the main promoters of this initiative, a senior researcher from HP Laboratories, had been presenting the project on the new digital city at conferences on urban themes during the previous months” (Aurigi, 2005, p. 147). “As the project manager and research coordinator from UWE [University of West of England] put it, ‘all of these projects have some idealist or ideologist promoting them, and we had the HP senior researcher’” (Aurigi, 2005, p. 149). HP would give out two bursaries for a master’s degree in the Netherlands “meant to support work directly related to digital cities and to layout the basic concepts, ideas, and the interface itself for Digital Bristol” (Aurigi, 2005, p. 150). UWE, meanwhile expected to display “a know-how in innovative Internet sites, that could be exploited on the consultancy side of academic business” (Aurigi, 2005, p. 153). Aurigi (2005, p. 149) describes what was occurring in Bristol: “In the late 1990s, as the Internet seemed to be booming, as well as all sorts of business
opportunities related to it, many IT giants that had so far engaged in producing hardware or software packages, were trying to adjust their strategies towards the production and management of Internet content.” HP’s interest in the project was that it saw “itself as a potential ‘shaper’ of innovative, content-rich websites” (Aurigi, 2005, p. 149).

“Digital cities were very much a ‘pushed’ technology—something that was not being asked for by citizens, and not necessarily that way—as rather than an innovation ‘pulled’ by grassroots’ needs” (Aurigi, 2005, p. 203). The pushing of digital cities is also evident: in the Helsinki Arena 2000 Project, where the City of Helsinki partnered with the Helsinki Telephone Company, IBM, ICL, and Nokia (Ishida, 2000; Linturi, Koivunen, & Sulkanen, 2000); in the formation of Digital Bristol, where “City Netgates Ltd. And Western Media Publishing Ltd. joined the team” as partners in Digital Bristol (de Bruine, 2000, p. 110); in the digital city for Westfield, New Jersey, which was created outright by Quintillion, a division of AT&T (Whitney, 1997; Hanson, 2002); and in the Roxbury, Massachusetts project, which was provided by the W.K. Kellogg Foundation, HP, RCN Telecom Services, Microsoft, and others (Pinkett, 2002). Even Vancouver’s own Public Involvement Review was encouraged by an “innovation” award from the Municipal Information Systems Association of BC (2013), an organization funded by Cisco, Telus, Rogers, and Bell, among others (City of Vancouver, 2001).

What often followed the introduction of these digital cities was a brief period of free access and sometimes training in computer-literacy (Lowenberg, 2000; Pinkett, 2002). As an example, Amsterdam’s digital city was freely available for the first six weeks, where “everyone could get online for free, thanks to a deal with the local telephone company, and
enjoy full Internet access” (Hinssen, 1995, Downtown, para. 2). After the trial period, it was business as usual: everyone had to pay.

In *The Cult of Information* Theodore Roszak (1994) outlines a detailed account of how, leading up to the digital cities movement, computers had been marketed and introduced to North American public schools, often through aggressive lobbying and government subsidy. Common ideology would eventually support the belief that increasing access to more information was good, in and of itself, and Roszak (1994) recalls what followed as a conscious effort by private interests to indoctrinate the public. Instilling dependence on computer use, to as many people as possible and at as early an age as possible, was simply good for business (Roszak, 1994). The story continues in Todd Oppenheimer’s *The Flickering Mind: The False Promise of Technology in the Classroom and How Learning Can Be Saved* (2003). Following an avowal to divert 5 percent of public school funding to “technology,” the Telecommunications Act of 1996, would help President Clinton make good on his promise to put the ‘information superhighway’ in every classroom (Oppenheimer, 2003). Oppenheimer (2003, p. xvi) writes, “in the decade that ran from the early 1990s to the first years of the twenty-first century, technovangels in city after city have been creating new schools and restructuring old ones, spending approximately $70 billion on new programs that revolve around the computer.” Private interests would thrive, while schools would cut funding for science equipment, field trips, and music programs (Roszak, 1994; Oppenheimer, 2003; Bauerlein, 2008).

Interviewed on National Public Radio, *Time* magazine correspondent Michael Scherer explains why what Roszak (1994) and Oppenheimer (2003) have documented is likely to continue: “computers and Internet firms are now spending as much lobbying as
the defence industry is, and almost as much as the oil and gas industry. Over the next couple of years, you’re going to see more and more of these companies and also the individual billionaires and hundred millionaires who run these companies putting more and more money into elections.” (WNYC, 2013b).

Have the more recent Web 2.0 Era technologies also been ‘pushed’ on us? Some have labeled crowdsourcing as ‘digital sharecropping’ whereby those holding key positions stand to gain from the free labour of others. Crowdsourcing endeavours “are essentially agglomerations of the creative, unpaid contributions of their members. In a twist on the old agricultural practice of sharecropping, the site owners provide the digital real estate and tools, let the members do all the work, and then harvest the economic riches,” writes Carr (2008, p. 137-138). When we create content online, “ultimately these words will contribute to the fortunes of those few who have been able to position themselves as lords of the computing clouds” writes virtual reality pioneer Jaron Lanier (2010, p. 1). In 2006, during the onset of Web 2.0, crowdsourcing was responsible for five of the US’s 10 fastest growing online businesses (Nielsen//NetRatings, 2006).

What is more, participating in crowdsourcing and other Web 2.0 endeavours online requires us to purchase Internet-access as well as the appropriate hardware and software, and then inhabit a private space filled with advertisements and other inducements to purchase and consume products we otherwise wouldn’t feel we needed. “New technologies unquestionably make purchases easier and more convenient for consumers,” writes Sunstein (2001, p. 121), “they accelerate the consumption treadmill without making life much better for consumers of most goods.” The notion of accelerating consumption is most worrisome when it’s paired with our growing disregard for its consequences. According to
Tapscott’s (2009, p. 86) research, when ‘net geners’ were asked if they’d “shun a company that pollutes on a massive scale or mistreats their employees,” he found that only 25 percent of respondents “take into account a company’s policies on social responsibility or the environment when making a big purchase.” This indifference of, and sometimes even disdain for, the environment is explored by Richard Louv in *Last Child in the Woods* (2005). Louv (2005) refers to the problem as ‘nature deficit disorder’, and explains that our increasing disregard for the natural systems we depend on arises from our decreasing experience in them.

This disregard is most evident in the fact that simply being online causes severe ecological damage that goes almost universally unacknowledged (Glanz, 2012). “All those free videos of cats that receive millions of hits on YouTube are stored on powerful server centers that cost millions of dollars to run, usually in electric bills alone. Those hidden costs will sooner or later produce environmental problems that will make us painfully aware of how expensive such technologies really are,” writes Morozov (2011, p. 286). Morozov is referring to data centres, or, “buildings packed top to bottom with computers,” as Mike Berners-Lee (2011, p. 160) writes. “These computers store web pages, databases, applications and downloads and generally make the Information Age possible” (Berners-Lee, 2011, p. 160).

Writing in the *New York Times*, James Glanz’s (2012, para. 6) “yearlong examination” of the Internet’s environmental effects revealed, data storage globally consumes the equivalent of roughly 30 nuclear power plants worth of energy, emits toxic pollutants, consistently violates clean air regulations, and takes up vast swaths of land (that could otherwise be used for the production of physical goods, like food). In addition to the
exchange of data, “even the seemingly mundane actions like running an app to find an Italian restaurant in Manhattan or a taxi in Dallas requires servers to be turned on and ready to process the information instantaneously,” explains Glanz (2012, Bytes by the Billions, para. 12). Will technological advances reduce the amount of power required to run these servers? So far, the Information Age is proving to require more power (Berners-Lee, 2011) and more paper (Baron, 2008) than the paper-based era of roughly twenty years ago. Even though “each year, chips in servers get faster, and storage media get denser and cheaper, the furious rate of data production goes a notch higher,” writes Glanz (2012, Bytes by the Billions, para. 5). A 44-fold increase in data storage (Johnson, 2012) and a doubling of data centre power consumption (Berners-Lee, 2011) is expected by 2020. For the foreseeable future, it will remain an undeniable truth that “the information industry is sharply at odds with its image of sleek efficiency and environmental friendliness,” concludes Glanz (2012, para. 6). (This is in addition to the increasingly well-documented social and environmental costs of producing and disposing computers and other digital devices.) Perhaps there is some logic to Google’s recent hosting of a fundraiser for US Senator James Inhofe, the Senate’s most vocal climate change denier (Graves, 2013).

5.4 The Law of Unintended Consequences

A global media and cyberculture is our life-world and fate, and we need to be able to chart and map it accordingly to survive the dramatic changes currently taking place and the even more transformative novelties of the rapidly approaching future.

There are three key discourses in media theory: the ‘economic’ discourse, which is about equipping “students with creative skills that can help them in the jobs market;” the ‘media literacy’ discourse, which is about giving them “the analytical skills to critically interpret
media texts;” and the ‘political economy’ or ‘powerful media’ discourse, which is about understanding “the influence and effects that media have in our contemporary lives” (McDougall, 2012, p. 9). Planning, as an area of study and as a practice focuses heavily on the first discourse (economic), pays little attention to the second (media literacy), and ignores the third (political economy/powerful media).

The political economy/powerful media discourse is meant to help us understand how “forces of production (such as media technologies and creative practice) are shaped according to dominant relations of production (such as the profit imperative, the maintenance of hierarchical control, and relations of domination),” write media scholars Meenkashi Gigi Durham and Douglas M. Kellner (2012, p. 13). The approach originated in mid-nineteenth century, when Karl Marx and Friedrich Engels (1978) coined the term ‘ideology’, to describe society’s dominant ideas and understandings. According to Marx and Engels, a dominant ideology makes what currently exists “appear natural,” and “smoothes over conflicts and negative features,” enabling those in positions of power to “elude criticism” (Durham & Kellner, 2012, p. 5). Gramsci (1971; 1985) built upon these ideas, establishing that mass consent could be achieved through ‘hegemony’, which is defined as ‘intellectual or moral leadership’ maintained via dominance or force. Theories of hegemony and ideology were further elaborated upon by the Frankfurt School. The School was essentially a group of thinkers based in New York and affiliated with Columbia University and the Institute for Social Research. Notable members included Max Horkheimer, Theodore W. Adorno, Walter Benjamin, Herbert Marcuse, and Jürgen Habermas. Horkheimer and Adorno (1972) would analyze the concept of hegemony as a ‘culture industry’, which was said to have emerged under ‘state-monopoly capitalism’ and had the
purpose of legitimizing free market systems. Habermas (1989) would validate Horkheimer and Adorno’s work, demonstrating how a media-dominated public sphere had recently arisen—one that had been colonized by private interests and sought to manipulate citizens into consumption and passivity.

Marshall McLuhan also explored the back and forth relationship between media and society through his analysis of popular advertisements in *The Mechanical Bride* (1951). By the 1960s McLuhan had solidified media as “an active agent of fundamental historical change and media culture as an important terrain of study” (Durham & Kellner, 2012, p. 10). In his most commonly cited work, *Understanding Media* (1964), McLuhan proposed that media was changing us and our world significantly: where print “produced rational, literate, and individualized subjects, who followed the linear and logical form of print media in thought and reasoning, the proliferating media culture produced more fragmentary, nonrational, and aestheticized subjects, immersed in the sights, sounds, and spectacles of media like film, radio, television, and advertising” (Durham & Kellner, 2012, p. 10).

Harold Innis’ *The Bias of Communication* (1951) served as a starting point for these types of inquiry. For Innis (1951) media analysis needed to address three questions: How do specific communications technologies operate? What assumptions do they take from and contribute to society? And what forms of power do they encourage? Innis’ work would not just inspire McLuhan, but would inform the study of political economy from then on, notably in: Herbert I. Schiller’s (1969) observation of the ‘industrialization of culture’ whereby a corporation’s control of the media can be equated to control over education and public expression; Guy Debord’s (1970) argument that a media consuming society is tied
closely to a consumer society, because the consumption of images and information is the same as the consumption of commodities and spectacles; Dallas Smythe’s (1981) exploration of the relationship between mass media consumers and the advertising industry, which reconceptualizes the audience’s role in media consumption as unpaid workers serving the ad industry; Roland Barthes’ (1982) emphasis on the importance of understanding the codes and meanings created by popular culture; Pierre Bourdieu’s (1984) concern that media immersion leads to a fabricated social and material hierarchy that serves to reinforce class division; Nicholas Garnham’s (1986) call for the distinction and further analysis of the relationship between media’s material and cultural production processes; Noam Chomsky and Edward Herman’s (1998) analysis of market capitalism’s influence on media content, which questions the notion of free-agency in Western journalism; and Eileen Meehan’s (2002) feminist exploration of oppression through established media norms, which reaffirms the notion that media cannot be understood in isolation from the context in which they are produced.

A common thread in the political economy/powerful media discourse is this: because media are produced and deployed in dynamic economic, political, and sociocultural spaces, their effects are not always predictable and never exclusively beneficial (Durham & Kellner, 2012). In other words, current ideology “presumes that each advance in technology is accompanied by an equivalent improvement in the condition of man,” writes Andrew Keen (2010, p. 54). But in reality, “technology leads a double life, one which conforms to the intentions of designers and interests of power and another which contradicts them—proceeding behind the backs of their architects to yield unintended consequences,” writes historian David Noble (1984, p. 325). “The only really reliable law of
history is the Law of Unintended Consequences,” writes Keen (2010, p. 54). In *Technics and Civilization* (1934), Lewis Mumford details the history of technology’s double life through recorded history up until the book’s publishing. The mechanical clock serves as one of his most notable examples:

Before the mechanical clock was introduced, time was experienced as a continuous, steady flow—through the ephemeral events, moods, and sensory experiences that accompanied the present—like the changing of the seasons and the corresponding variation in length of daylight, and the universally observable life patterns of growth, development, death, and decay (Mumford, 1934). By the thirteenth century, this flow was broken up into seconds, minutes, and hours by the mechanical clock: “In deciding when to eat, to work, to sleep, to rise, we stopped listening to our senses and started obeying the clock” (Carr, 2008, para. 17). Time became something that could be spent, wasted, given, taken, and even lost (Carr, 2008). Days were soon scheduled with regularized work hours, standardized products could be manufactured, and complex systems, like market economies, and global trade could organize (Mumford, 1934; Postman, 1992). According Mumford (1934, p. 15) the mechanical clock “dissociated time from human events,” and “helped create the belief in an independent world of mathematically measurable sequences: the special world of science.” Carr (2010, p. 44) adds, “the clock’s methodical ticking helped bring into being the scientific mind and the scientific man.” After its widespread implementation, an explosion of scientific thinking occurred, “propelling us out of the Middle Ages and into the Renaissance and then the Enlightenment” (Carr, 2010, p. 43). But the mechanical clock, according to Mumford (1934), was invented to maintain the
Christian monks’ rigorous prayer schedule. Its purpose was to allow monks to be more efficient with God’s time, not to mathematize our conception of it.

That the widespread adoption of new media could, and often did, affect history in such significant and unpredictable ways led McLuhan (1964) to pen his famous aphorism, ‘the medium is the message’. What McLuhan meant by this is: while media are often judged by the content they deliver, often, their most profound and long-lasting effects are in the way they shape our behaviour and change the way we understand the world. It’s a viewpoint now shared by many key thinkers on media, including; social anthropologist Jack Goody (1977) who termed these media ‘intellectual technologies’; Carr (2010, pp. 46-47) who describes intellectual technologies as having “the greatest and most lasting power over what and how we think;” English professor Walter J. Ong (2002, p. 81) who refers to their effects as “interior transformations of consciousness;” and perhaps most notably, media theorist Neil Postman, who writes, “imbedded in every tool is an ideological bias, a predisposition to construct the world as one thing rather than another.”

Postman (1985), who built upon McLuhan’s work, gained attention as a key thinker on media when he made the observation that new forms of it increasingly provide us with information we have no use for or cannot act upon or both. The ‘information-action ratio’, as he terms it, is being skewed away from action (Postman, 1985). Postman (1992; 1999) would devote the remainder of his career to exploring how and why Western societies, in general, don’t acknowledge the social costs of technological advancement, seeing it as a goal rather than a solution to a specific problem. To compensate for our ideological bias toward techno-optimism, Postman (1999, p. 42) stresses we ask, before the

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2 As an example, planning professor Jennifer Evans-Cowley (2010b, p. 149) has devoted her academic career to figuring out “how technology can be used to support planning.”
implementation of any new technology: “What is the problem to which this technology is the solution?”
Conclusion

The most obvious question to be asked about any new technology—for example, interactive television, virtual reality, the Internet, or, for that matter, doorknobs and toasters that ‘understand’ human speech—is, *What is the problem to which this technology is the solution?* Neil Postman, *Building a Bridge to the Eighteenth Century* (1999, p. 42)

Since participation in community affairs was first brought online in the early 1990s community networks—from citizen empowerment in America’s grassroots community networks to the pursuit of more inclusive public engagement in today’s planning processes—the goal has, in general terms, been to achieve greater and more democratic participation in community affairs. In that sense, the problem to which new communications technologies have been the solution, as long as they’ve been commercially available, has been: insufficient citizen participation.

The notion that citizen participation in community affairs was insufficient was collectively realized in the 1960s and 70s, following citizen action against urban renewal projects, which were the manifestation of top-down decision-making in municipalities across North America. From then on, citizens would expect to be included in municipal decision-making. And planners, supported by participatory planning epistemology, would pursue ongoing efforts to include those excluded by previous processes, in many cases incorporating new tools to do so. Over the past decade, these tools have increasingly been Internet-enabled digital communications technologies, or more simply new media. The three most common arguments in favour of new media in planning are that it makes processes more inclusive, reduces the cost of obtaining public input, and enhances interaction among those involved. Taken together the three are said to contribute to greater and more democratic participation in community affairs. The truth of these claims
has not been adequately proven. Meanwhile, the increased use of new media is accompanied by a number of unforeseen side effects that may in fact be undermining our efforts to solve the problem we had initially set out to address.

New media connects more of us to each other more quickly, but research suggests it feeds us content that won’t challenge our pre-established beliefs, divides our attention, diminishes our language skills, and degrades our mental well-being. As new media becomes an even greater presence in our lives, our communities are less often forged through common geographies and a necessarily reciprocated accountability among its members, and more often forged virtually through self-selected shared interests. And we’re more likely to experience ideological segregation—in that we’re less likely to have our pre-established beliefs challenged by those we interact with on a daily basis—perhaps as a result. Also coinciding the widespread adoption of Internet-enabled digital communications technologies, our political opinions are more polarized and less informed; what is more, we’re less interested in being politically informed. By a number of measures, technological advancement has undermined our goal of achieving greater and more democratic participation in community affairs.

Yet we still welcome the introduction of new technologies, like new media, with enthusiasm. This is despite our well-documented history of overestimating the benefits of new technologies and downplaying both their unpredictability and their profound and often negative effects. To some media theorists, the Western narrative of progress over time through technological advancement, or, techno-optimism, facilitates this oversight. This ideology of techno-optimism is evident in the belief that technological progress always works in favour of the oppressed and against oppression. It is also evident in our belief that
the dissemination of ever-increasing amounts of information, among more people, more quickly leads to a more informed citizenry and more informed decision-making. Combined, these beliefs prioritize the implementation of technology as an end in itself as opposed to a solution to a clearly defined problem. And when technology is being implemented for its own sake, the premise for using new media in planning—which is rooted in the ideals of democracy and inclusivity—is lost.
Recommendations

One might say, “Why don’t you leave me alone? I want no part of your Internet, of your technological civilization, of your network society. I just want to live my life!” Well, if this is your position I have news for you. If you do not care about the networks, the networks will care about you, anyway. For as long as you want to live in this society, at this time and in this place, you will have to deal with the network.

Manuel Castells, The Internet Galaxy (2001, p. 282)

Responsibilities have been thrust upon today’s planners: to understand the limitations of the new tools at their disposal; to understand these tools’ broader effects on society; and to further contribute to this area of inquiry. The following recommendations, for planning practice and for further research, are meant to guide us in taking on those responsibilities.

Recommendations for Planning Practice

Planning practice has excelled in the implementation and use of new media, but there isn’t sufficient evidence to effectively evaluate its use. Once we have ensured that we are employing new media to address a specific problem, its implementation should be accompanied by ongoing data collection and monitoring in an effort to evaluate whether the problem in question is being addressed. The analysis should reveal: Who is and who isn’t being engaged and to what degree? At what point or points in the process are they being engaged? What is the depth and quality of their involvement? How well informed are participants? Are they more or less informed as a result of participating? How is the public’s input ultimately being used? Are equitable outcomes being achieved in the short term? Are equitable outcomes being achieved in the long term? And how does all of the above vary depending on which tools are used and as other characteristics of the planning process are adjusted?
Process evaluation should then be informed by a broader understanding of the implications of new media use and how it relates to planning. For this, further research is required.

**Recommendations for Further Research**

After first asking: “What is the problem to which this technology is the solution?” Postman (1999, p. 42-53) suggests we then ask: Whose problem is it? Which people and what institutions might be most seriously harmed by a technological solution? What new problems might be created because we have solved this problem? What sort of people and institutions might acquire special economic and political power because of technological change? What changes in language are being enforced by new technologies, and what is being gained and lost by such changes? We would do well consider these questions, but the point to be taken is: because planning occurs within, and is affected by, economic, political, and sociocultural systems, it would be irresponsible for planners to implement a new technology that may affect or be affected by those same systems without first investigating how and to what degree. This type of investigation requires a solid grounding in media theory (particularly its political economy/powerful media discourse) which should be required in planners working with new media, as well as graduates of planning programs from now onward.

Further research is this discourse would include a further exploration of how and why we're encouraged to use new media in planning: Do citizens prefer online processes? Is this a valid justification for online processes? Does our current ideology bias us in favour of the implementation of new technologies? Do individuals or organizations receive financial gains or experience career advancement by facilitating the implementation of new
technologies? Are new media pioneers, for example, ‘early adopters’, rewarded with positions of power and influence? As well, given the external environmental costs of being online, is online engagement environmentally sustainable? Or does it undermine a city’s environmental goals? And are our notions of public space and the common good changing?

One feature of the fight for participatory planning in Vancouver was a collective prioritization of livability and the common good (over economic growth), which resulted in increased investments in public space (Ley, 1996). By contrast, the public now spends more and more of their time online—a space that is in many ways private.

If the systems that affect and are affected by planning are changing, planning research must also investigate how planning itself is changing: Are planners being displaced by the automation of public engagement? Are planners skilled in the application of new media more employable? Is their knowledge and skill in implementation and use gained at the expense of knowledge and skill in other areas, like in the application of planning theory or media theory or both?

Within planning, we must then continue to document the changing nature of public engagement: Is attendance at public events declining as participation becomes more accessible online? Are traditional public events more or less inclusive than online engagement? Is inclusivity best achieved through a combination of online and offline processes? And how do we know if we’ve achieved inclusivity? Moreover: Are there are qualitative differences between online and offline public engagement? If so, what are they? Is filling out online survey qualitatively different than speaking to a planner in person about a subject or issue? Does the depth and quality of interaction vary? Do participants behave differently in online versus offline public engagement? Our research tells us people
are more likely to be untruthful and are less likely to adjust an incorrect belief when using certain forms of new media: Is this also true when these new media are used in public engagement?

The evaluation of specific tools and the development of best practices for the use of new media could then follow: What are the strengths and weaknesses of each tool? To what degree are the strengths and weaknesses of each tool determined by the abilities of those deploying the tools? To what extent are the strengths and weaknesses of each tool determined by each distinct planning process? Because specific new media tools do not often remain permanent features in our lives and in society, and because the effectiveness of each tool likely depends on a number of process-specific factors, I would suggest that tool preference guidelines could more usefully be replaced by best practices for public engagement using new media. Rather than employing a tool that is deemed effective, best practices would ensure an effective process, irrespective of which tool or tools are selected.

Finally and above all, addressing any or all of the above requires us to continuously return to the impetus for new media in planning: If new media is being implemented to solve a problem, what is the problem? Why is it a problem? Who is it a problem for? Who will be better off if we solve it and how will they be better off? How long has this problem existed? Are our interventions alleviating or worsening the problem? What are the problem’s root causes? Can its root causes be addressed by a technological intervention?
References


http://www.initiative-eparticipation.de/


National Center for Education Evaluation and Regional Assistance. (2007). *Effectiveness of Reading and Mathematics Software Products: Findings from the First Student Cohort*.


P. van den Besselaar, & T. Ishida (Eds.), *Digital Cities II: Computational and Sociological Approaches* (pp. 110-124). Berlin: Springer.


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