INCLUSIVE INTERNET PARTICIPATION IN THE NETWORK SOCIETY

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Abstract

Websites and Internet applications that allow user interaction and participation in online discourses have captured the attention of planners and researchers for the potential to increase engagement. However, there is concern about how inclusive these initiatives are of cultural diversity. In this paper I look beyond the binary 'digital divide' concept of having Internet access or not in an attempt to bridge the gap between the high level of abstraction present in discussions of the 'network society' or 'global cities' with the normative discussions of online citizen participation in planning practice. A theoretical analysis of what participation by diverse publics online entails and what the stakes are is combined with a discussion of Web 2.0 practices to provide a 'lens' for considering the potential of Internet tools to serve diverse communities as the technology and our use of it continues to change. This analysis informs the recommendation that principles of collaborative planning and expressions of local knowledge should guide future research and practice.

Key Words: collaborative planning, Internet engagement, diversity, network society

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Preface

This paper had its genesis in discussions about the use of Internet tools for community engagement within the integrated framework of multiculturalism and sustainability in Ryerson University's Urban Development program. It has been recognized that sustainable development will be reliant on local efforts (Robinson, 2009) and that these locales are multicultural and multi-ethnic urban centres, or "cities of difference" (Sandercock 2003). This reality highlights the importance of engagement with residents in sustainable activities and indicates that strategies must consider the diversity of these communities. Comprehensive statistical studies have shown that Internet use increases civic engagement (Mossberger, Tolbert, & McNeal, 2008) and the recent migration of participatory mapping technologies to the web "holds great potential for citizen-oriented services" (Ganapati, 2010) and to support participation in urban planning (Nuojua, Soudunsaari, & Hentilä, 2010). The combination of Internet technology, geographic information, and social networking has been termed the Geospatial Web, or Geoweb (The Participatory Geoweb, 2008). Within this context, my original goal was to assess how social media and other Internet tools, particularly mapping applications that allowed for user-volunteered information and interaction, could better engage cultural diversity online.

The Live Green Toronto Community Animation Program was identified as an ideal candidate for assessment of how Internet tools could enhance the engagement process. Live Green Toronto, a component of the City's Climate Change, Clean Air, and Sustainable Energy Action Plan, is an initiative to promote 'green' actions by residents and businesses. In support of the goal to increase community involvement in the project of 'greening' the City, the Community Animation Program was created.

The Community Animation Program has demonstrated concern for the inclusion of diversity in its activities by establishing the position of a 'diversity expert' animator in 2010 to support the city-wide team in diversity awareness throughout its activities and to

engage directly with emerging leaders in diverse communities (EcoSpark, 2010). The diversity animator has expressed awareness of the potential cultural bias inherent to any municipal initiative and its procedures that could hinder representation of some community groups (EcoSpark, unpublished, 2010). The success of the program in building relationships among diverse community groups and the intention to incorporate a mapping tool of sustainability initiatives (EcoSpark, 2010) presented an opportunity for investigation of how Internet tools could be better developed to serve this process. Originally, I proposed a user-needs assessment with qualitative research through focus groups and interviews with participants identified by the diversity animator. It was hoped that this could inform a more community-led development of Internet tools.

However, it soon became apparent that this approach would require resources and relationships that I could not reasonable obtain in the time and space available. Beyond the normative ideal of a 'communicative turn' (eg. Healey, 1996), intercultural participatory communication methods are not a simple paradigm shift and involve a complex and highly contextual multiplicity of approaches (Servaes & Malikhao, 2005; Cadiz 2005). It is one thing to hold the belief that the community has the right to self-expression of needs in their own terms but quite another to think that my intention alone can ensure a meaningful or even just outcome. Miller (2004) highlights the difficulty of outside researchers to gain trust and access in minority communities, observing it is a "complicated process that takes time, negotiation, and a respect for the gradual development of relations based on trust and mutual respect" (218) and that failure to do so often results in inaccurate data collection even with participation. It would have been ironic for me to engage with a community about appropriate online participation without the proper consideration for their participation in this study.

At this point, my research focus moved to an examination of existing initiatives to see how, in practice, these tools are being used to foster engagement with diverse communities. Months of searching for and exploring various initiatives to integrate online participation into planning processes failed to produce any examples with explicit

content sufficient to evaluate in terms of diversity. Much of the experience with the type of participatory tools of interest is from researchers or practitioners in the field related to the type of information they wish to communicate and are then evaluated in those terms. Additionally, the suite of interactive technologies is constantly changing and any content analysis of current uses will be highly dependent on the specifics of the application that may be obsolete soon, if not already.

The literature on evaluation frameworks for online participation recognizes the difficulty in translating goals such as "enhanced representation" and "engagement with wider audiences" into evaluation criteria (Macintosh & Whyte 2008). These concepts are often analyzed with questions relating to "ease of use" or "accessibility" and do not address the more important organizational and societal barriers that may require a more theoretical perspective (Macintosh & Whyte 2008). In response to this type of observation, I undertook a broader review of communication, urban, and planning theories through the lens of online engagement. What emerged was a persistent gap between the ideas of how communication networks are influencing our society on a whole, and how user-level assessments focused on accessibility. It became apparent that the Internet is not just an enhanced medium for traditional notions of engagement, but that it represents a new structure of communication and power.

An expanded literature review revealed broader questions regarding the purpose and nature of using Internet tools in our diverse cities. What does online participation of diverse publics mean? Is it merely the adoption or use of applications that matters? This led to the conclusion that not only was I was not ready to engage this research with community members, but these questions remained unanswered at large as part of emerging, nascent, but important theories. These questions also made me realize I needed to re-contextualize my focus on Geoweb applications. I am not an expert in Geographic Information Systems (GIS) and there is a growing body of literature from experts that have engaged in critical deconstructions of earlier positivist approaches (Elwood, 2006), reinvigorated by new methods of participation by the public (Sieber

2007; Dunn, 2007; Corbett & Keller, 2005). Ganapati (2010) outlines three "waves" of GIS development: first was the traditional stand-alone desktop technologies that were very expensive and required a high level of expertise to operate; second was an initial integration with the Internet that dispersed GIS output as read only maps; and third is the current Geoweb on which users can easily create and/or edit map content with a variety of interactive and social media platforms (Google map layers, photo geotags, etc.). While the critical, epistemological examination of participatory GIS has spanned these three 'waves' of development, this alone does not consider the inclusion of GIS applications in the increasingly social space of the Internet as a medium of participation in its own right, and that is where my interest lies.

Returning to the original goal of providing a framework for engaging diverse communities and supporting community-based efforts such as the Live Green Toronto animation program, I felt it would be most useful to make the purpose of this paper an attempt to bridge the gap between the high level of abstraction present in discussions of the 'network society' or 'global cities' with the normative discussions of citizen participation in planning practice and the tools available. Thus, rather than a qualitative user-needs level assessment of Geoweb tools, this paper is a more theoretical analysis of what participation of diverse publics online entails, what the stakes are, and principles to inform future initiatives.

1.0 Introduction

The new culture of cities is not the culture of the end of history. Restoring communication may open the way to restoring meaningful conflict. Currently, social injustice and personal isolation combine to induce alienated violence. So, the new culture of urban integration is not the culture of assimilation into the values of a single dominant culture, but the culture of communication between an irreversible diverse local society connected/disconnected to global flows of wealth, power, and information. (Castells 2004a, p.92)

Websites and applications that incorporate user-authored or user-organized content have become a major characteristic of the rapidly changing Internet environment. Examples include personal blogs, social networking sites, comment or discussion forums, as well as tagging (describing), bookmarking, or rating of content. The interactive element, particularly the ability for users to publish and manipulate content, of these technologies is generating excitement and optimism across a range of interests concerned with citizen participation and empowerment. Witnessing the popular, and often powerful, level of social and commercial use of the Internet, many government, educational, and civic institutions are attempting to integrate or even prioritize experiments with web-based communication technologies to break down the longstanding barriers to increased citizen engagement in a variety of issues and capitalize on the extended reach and efficiency of digital communication. Below are some examples with varying levels of interactivity:

- "The Participatory Geoweb" research team, as part of the GEOIDE (GEOmatics for Informed DEcisions) program funded by the Government of Canada Networks of Centres of Excellence program, is using online maps to gather local information from citizens on environmental issues including wildlife populations and erosion. (http://rose.geog.mcgill.ca/geoide/)

- The City of Calgary is currently using a suite of social media tools including Blogger, Twitter, Facebook, Youtube and mobile phone applications in a new

campaign to solicit participation on the city budget, as well as on participation itself. On the blog, Mayor Naheed Nenshi is quoted as saying "I want to go from 15 problem solvers around the Council table, to 15,000 staff who are problem solvers, to over a million citizens who can solve the problem – together." (http://ourcity-ourbudget-ourfuture.blogspot.com/)

- The Provincial Government of British Columbia has released raw environmental data sets and launched a contest for members of the public to build interactive web applications for climate change awareness. (http://www.livesmartbc.ca/A4CA/)

- The Ontario Ministry of Municipal Affairs and Housing has produced a "Community Planning and Development 3D Visualization Portal", a static website that provides visual support to land use planning objectives. (http://www.mah.gov.on.ca/Page7224.aspx)

These initiatives each represent a different approach to a common goal of using the Internet to facilitate communication between diverse groups of citizens and institutions that serve them. For many of us, our daily lives are already marked by a substantial immersion with digital media whether it is connecting with friends over Facebook or using Email at work. It is easy, then, to approach the integration of such media for our professional goals as an obvious and intuitive improvement in reach. The proliferation of accessible web-authoring tools available has closed the gap between practitioner or researcher and a medium for public communication. Further impeding reflection is the fact that "Popular concerns, images, and delusions, as reflected in and molded by mass-media journalism and online folklore, have outpaced systematic studies of social cyberspace" (Rheingold, 2002, xxvii).

The City of Toronto is one of a growing number of Canadian municipalities to release raw data for the public to build web applications themselves. On its open data webpage, the slogan reads, "Building a City that thinks like the web" (www.toronto.ca/

open). The intention of that slogan or what was considered in choosing it is unknown, but it is a striking thought for urban planners. If our city is to 'think like the web', one might ask, how *does* the web think? Or, more importantly, does the web think like me? Like my neighbours? This paper is an exploration of such questions about how the web 'thinks'; the relationship of the web to the physical and social environment of our cities; and what this means for our ideas of participation in city planning. Critically, these questions are about the virtual representation of the real diversity of our cities and need to be considered before thinking about the specifications of the latest communication tool.

In the next section, the promise of the web to empower citizens is reviewed in the context of social movements that have captured our collective attention and reignited hopes for a redistribution of communication tools and information access. The anonymous, or at least largely unverifiable nature of an individual's characteristics on the Internet makes it difficult to discern who's missing from the online conversation about our cities. In the discussion of online participation, concern for the cultural diversity of voices is often cast in terms of a 'digital divide' (Pierterse, 2005; Hilbert, 2010; Compaine, 2001; Krotz, 2006), the idea that certain portions of society are not able to take advantage of Internet technologies. Section 3 reviews the literature on the common perception of a 'digital divide' that prevents the involvement of certain communities on the Internet.

In light of a growing body of work concerning the effects of digital communication networks, including the World Wide Web, and human migration and mobility on the nature of society and the shape of our cities, section 4 suggests that the binary notion of online/offline is now insufficient when considering the Internet for participatory purposes. If we indeed now live in a 'network society', all citizens are effected by the operation of global informational power structures and we need to rethink communication networks and the diversity of cultural expressions flowing through them as being as much a part of our cities as roads and buildings.

The current and projected state of the internet, with its explosion of diverse individual expressions linked together in overlapping social groups and conversions on a non-linear, non-hierarchical network appears as a manifestation of postmodern theoretical dreams. For urban planning, a profession seen by many as suffering estrangement from theory (Hall, 1989; Allmendinger, 2002; Bengs 2005) and with an increasing concern with methods of engagement and public participation (Innes & Booheer, 2000), the attraction is obvious. The Internet allows for new ways of communicating to, hearing from, and deliberating with a wider public. Section 5 examines planning theory as it relates to communicating in the context of networks, reasserting the role of collaborative planning as a model equipped for use on the World Wide Web and in the 'network society'.

The Internet environment has evolved over the past decade from a static collection of websites to a platform that separated content from form, allowing for a dynamic and customizable user-centred experience that has become known as Web 2.0 (O'Reilly, 2005). A hallmark of Web 2.0 is user contribution either by adding content or by participating in the collective organization of content. The liberation of data from a single form allows for multiple recombinations that can produce innovative new information. For example, addresses from rental apartments on Craigslist, an online classified add service, can be plotted on a Google Maps interface (O'Reilly, 2005) and even be combined with addresses of landlords with the worst city inspection records (Chen, 2011) to create an empowering housing search tool. Furthermore, the absence of an authoritative ontology or hierarchy on the open web allows for a wide variety of more unique types of multimedia information to be self-published and then coexist in various combinations with other information determined by the user. Section 6 discusses how the structure of the web is shaped and the opportunities this presents for the diversity of users in creating and sharing knowledge and meaning.

Section 7 builds on the discussion of cultivating diversity online by looking at methods that can be applied to web initiatives. The first part of this discussion

addresses communication across the traditional digital divide. That is, combining online engagement with those who currently have no online presence. The second part of the discussion is divided between the two objectives of creating a space for diverse voices, and using the web to communicate with diverse audiences. Examples from research and practice are given to illustrate the implications of various methods. Section 8 brings together the preceding discussion by making general conclusions for approaches to online engagement as well as several guiding questions for planners and for future research.

There already exists a growing body of prescriptive and critical literature, both academic and journalistic, that explores the potential of incorporating specific Internet tools in public participation methods. Instead, here it is hoped that combining the ideas of network inclusion in the information age, collaborative planning, and the structure current Internet applications will serve as useful lens for considering the potential of Internet tools to serve diverse communities as the technology and our use of it continues to change. The hypothesis is that communication networks are now an integral part of what defines our changing cities and thus the Internet should not be thought of as a medium to enhance old ways of communicating.

2.0 The Enabling Potential

Claims about the empowering and democratizing potential of the Internet have been discussed with exuberance for nearly two decades and have progressed through enthusiasm and pessimistic reaction to an increasingly more balanced and empirically supported approaches (Chadwick, 2008). At the time of the rise in popular use of the Internet, there was increasing concern about urban social and political isolation (e.g. Putnam, 1995). Internet use has since been regarded as either a new opportunity for engagement or a reinforcement of existing power relationships and patterns of participation (Park & Perry, 2008). The initial foundations of the democratic promise of the Internet were that it enabled communication between many people without being filtered by the government or traditional media institutions; it allows increased personal access to a greater amount of information; and its non-hierarchical form could give equal voice to greater number of interests (Johnson, 2001). These characteristics fed into a normative ideal of a deliberative public sphere as theorized by Habermas (Chadwick, 2008)

The outcome from pioneering e-democracy initiatives has been ambiguous (Cammaerts, 2008). Although studies have shown that use of Internet resources, such as news sites or discussion boards, does increase political knowledge and engagement (Mossberger et. al., 2008) there is little evidence available about how initiatives could increase such use. However, this first wave of e-democracy was mostly experienced on web technologies that are quite different than what has emerged in the last decade. Early initiatives were executive-led and top-down, focusing on dissemination of information rather than deliberation and interaction (Cammaerts, 2008). Interactive web 2.0 applications have changed the way we use the Internet and we can likely expect another repeat cycle of enthusiasm, pessimism, and balance.

It's hard not to be enthusiastic after recent events around the world have highlighted the potential in popular media. In the aftermath of the devastating 2010

earthquake in Haiti, the relieve effort faced great logistical challenges due to a lack of reliable maps of the island. Using 'Open Street Map', volunteers on the ground quickly began to compile data and upload it to the Internet creating an accurate map that included conditions after the earthquake and proved invaluable to many international organizations and governments (NPR 2010). This data was also used by a site called Ushahidi that created a "crisis map of Haiti", in real-time, by geo-tagging incidents from SMS, Email, phone, Twitter, Facebook, list-serves, live streams, as well as broadcast media and situation reports (http://haiti.ushahidi.com/). The incidents were reported by Haitians in need themselves and processed by volunteers around the world to coordinate assistance.

At the time of writing we are witnessing dramatic popular uprisings in North Africa that have been initiated and organized by citizens with the assistance of social media. When Egypt's dictator Hosni Mubarak restricted access to the Internet, protocols were developed by activists outside Egypt to allow translation of spoken telephone messages into Internet content organized by Twitter (Arthur, 2011). This "speak to tweet" method carried over into the even more oppressed opposition in Libya where various forms of media then broadcast the reports locally and globally, including an online map that spatially displays incidents (http://www.libyacrisismap.net/). Wael Ghonim, the activist who created the Facebook page credited for sparking the Egyptian protests against Mubarak, has termed this 'Revolution 2.0' and said it would not have been possible without social media (CBS News, 2011).

The ability of western media institutions and commentators to access and make relatable this Internet communication has amplified the prominence social media in our views of these events. While Ghonim's statement that this revolution would not have been possible without social media needs to be understood in a context of the Egyptians' struggle that is far from the scope of this discussion, it does illustrate an important question about the role of new technologies. From a user-design perspective, most advances are promoted for promising positive sounding results such as

information creation, empowerment, or sharing but remain, at best, only enabling in nature and purposes are determined culturally and with a degree of agency and selectivity (Mannonen, 2010). Ghonim did not say that Facebook caused the revolution. It did, however, clearly play a role in enabling activists to efficiently communicate with each other about their specific and local concerns.

This distinction becomes important when the objective is to use web 2.0 tools to increase levels of engagement among diverse populations that are not already active, or desperate. There are many examples of social movements harnessing the potential of new communication technologies to organize themselves and and build support, from the famous cases of the Zapatista movement and the anti-WTO protests Seattle in the 1990s to the examples above occurring now. Studies of new social movements confirm that the Internet is a very important and empowering tool (Loader, 2008; Van Laer & Van Aelst, 2010). Innes and Booher (2000) identify social movements as a "response to the inability of some interests or of a large number of citizens to get a hearing or be incorporated into the planning and decision making process (p.17)." Despite being participation that can have effective influence (Innes and Booher, 2000), such movements are held together by solidarity on specific vision and thus do not represent the diversity of the population or lead to a meaningful deliberative democracy (17). If there are clear advantages to using new media that can enable increased empowerment of the underrepresented, it needs to better serve our diverse communities together in collaborative deliberation of common interests, not just revolutions.

3.0 The Digital Divide

The digital divide is popularly known as the perceived gap between those who have access to current information technologies and those who do not (Compaine, 2001). As a means of explaining the exclusion of certain individuals from Internet activities, this gap is often seen as a proxy for demand side perspective on Internet initiatives (Helbig, Gil-Garcia, & Ferro, 2009). Empirical evidence has tended to lay this gap between various ethnic, economic, and geographical groups. The highly influential U.S. Department of Commerce report *Falling Through the Net* (2000), measured Internet use and computer ownership in the United States and first gave the digital divide widespread media attention (Young, 2001). Highlights from the report include that Asian Americans had the highest level of home Internet access at 56.8% while Blacks had the lowest rates at 23.5% (U.S. Department of Commerce, 2000, pxvii).

Despite many predictions that this divide would rapidly close as the pace of technology development brought affordable access (e.g. Morrisett, 2001), the concept continues to be the source of countless investigations, policies, and interventions, still primarily couched in terms of have or have not (Helbig et al. 2009; Mason & Hacker, 2003). Quantitative research on internet use has continued to be heavily reliant on the question of computer ownership or Internet access and qualitative studies are very limited to specific local experiences (Sorj & Guedes, 2005)

When the optimism of ICTs for community empowerment is coupled to the digital divide as an access issue, particularly when seen as a 'cyber apartheid', it often results in deterministic logic preoccupied with a technical solution to liberate the potential of marginalized groups by providing Internet access (Pierterse, 2005). The emphasis on connectivity is simplistic, reductive, and masks the complexities of exclusion (Parayil 2005). The digital divide is not just a digital problem; it is a socioeconomic issue.

There is also objection to the disabling binary logic inherent in the common access-based construction of the digital divide on the basis that it casts minority groups

as victims outside an online world of privilege and whiteness (Everett, 2008). It is felt that even the term 'digital divide' is insulting, akin to "living on the wrong side of the tracks", and, ultimately, as a manifestation of economic and educational gaps that predate and transcend the Internet, not of use to those considered most effected (Cisler, 2000). The perceived racialization of the digital divide discourse perpetuates a stereotype of technophobic or uncivilized minorities that could discourage the creation of online initiatives for diverse communities, thus reinforcing the divide (Young, 2001).

Some attempts to provide a more robust explanation turn to a theory of diffusion of innovations (e.g. Hilbert, 2010). As formulated by Everett Rogers, diffusion is "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Hilbert, 2010). This theory applies to innovations held to have a discernible advantage to users. At the beginning, only early adopters use the innovation, then, as the advantage becomes apparent more people become users until a saturation point is reached. Although this account often considers the various social and institutional factors, it usually implies that the divide is temporary or reflects a delay as seen with radio or television before everyone becomes equal users (Compaine, 2001; Helbig et al., 2009; Mason & Hacker, 2003). Technology-based theories, such as diffusion of innovation, treat the Internet as a commodity with an assumed clear and fixed advantage for those who use it. This is inappropriate as Internet use is both highly variable between individuals and over relatively short time periods (Krotz, 2006). Internet access cannot be treated as a traditional intermediary good because of the highly complex and dynamic nature of use (Sorj & Guedes, 2005), or as Castells (2009) explains:

> We do not "watch" the Internet as we watch television. In practice, Internet users live with the Internet. As a considerable body of evidence has demonstrated, the Internet, in the diverse range of its applications, is the communication fabric of our lives, for work, for personal connection, for social networking, for information, for entertainment, for public services, for politics, and for religion. (64)

Another more comprehensive approach to the digital divide that goes beyond the question of access is media or Internet literacy. The idea of literacy brings into question the effectiveness of access to computers and the Internet, or the ability of a user to benefit from the technology (Carvin, 2000). This framing could potentially be just as simplistic as access if literacy is viewed as something you either have or don't, and risks characterizing those not technically literate as 'uncivilized'. It may not place value on other forms of literacy or be reflective upon the values programmed in the technology. Critics of the literacy approach to the digital divide fear this is another modernist or totalizing approach as it requires an individual conform to a dominant technologically driven development (Krotz, 2006). Caution about the push for literacy is also being expressed by those who see adoption initiatives as part of growing a customer base for technology corporations (Pieterse, 2005).

However, literacy, when viewed as "having mastery over the processes by means of which culturally significant information is coded" (Warschauer, 2002), considers the potential for marginalized groups to participate and transform a dominant political and social arena in meaningful ways (Everett, 2008; Ashcroft, 2001). This idea infers a kind of social capital as conceived by Bourdieu that can be exchanged for other forms of capital (Krotz, 2006). Krotz explicitly applies this to the digital divide, but it is the same concept found in some postcolonial discussions of language literacy: "To assume that the speaker of a colonial language has a 'colonized mind' is to accept a theory of the subject as agentless"(Ashcroft, 2001, p39).

As Mason and Hacker (2003) point out, a critical flaw in the majority of these views of a digital divide is treatment of the Internet as any other technology, such as iPods, microwaves, personal computers (e.g. for word processing). Instead, they argue, the Internet represents a very different technology than even previous communication mediums such as the telephone, radio, or television (p. 45). The Internet has selective and increasingly complex interactions that mix interpersonal and mass communications. Anything that can be digitized can be done over the Internet. As such, they believe more

nuanced Internet communication theory is necessary because without it, "the Digital Divide appears to be a matter of technological access alone. Looked at theoretically, however, the Digital Divide appears to involve strong issues of social networking, formations of new forms of affiliating, and new means of networking to organize social, economic and political actions (p. 44)."

Studies critical of the simplistic, access to hardware based approaches have paid closer attention to the multiplicity of social, economic, and political factors that account for individuals' relationships with Internet technologies. These have included examinations of gender (Dholakia, 2006), telecom infrastructure and regulation (Chinn & Fairlie, 2004), and even generational in terms of teachers and students (Vie, 2008). Generally, looking at the complexity of factors leading to exclusion from technology highlights broader issues of equity and remind us not to think of individuals as simply 'users' (Robins & Webster, 1999). Using comprehensive data sets from United States census and the PEW Internet and American Life Project, Mossberger et. al. (2008) attempt to explain some of the demographic and cultural factors influencing Internet use. Looking at the role of race and ethnicity, while controlling for other factors, they found that some minority groups reported low interest and speculate this may be due to language barriers or lack of culturally relevant material online. However, despite having the lowest rates of usage, African Americans reported higher interest and more positive attitudes towards technology than the national average. To explain this contradiction, they cite a previous study in which models included zip-code level data, hypothesizing that place of residence matters more than race because the segregated neighbourhoods limit opportunities (Mossberger et. al., 2008).

Ultimately these approaches may all be insufficient alone or taken together in bridging the divide if they fail to appreciate the scale of the societal change taking place precisely due to the rapid development of communication technologies. When effective online representation becomes "a prerequisite for overcoming inequality in a society whose dominant functions and social groups are increasingly organized around the

Internet" (Castells, 2001; p.248), the inequality of access becomes an urgent problem. As discussed above, this needs to be addressed with appreciation for the complex structural conditions that marginalize certain communities. "As we bridge the digital divide, our goal should be to use the new technologies to make sure we close all the other divides that have plagued, and continue to plague, our society (Massey, in Young, 2001)." However, accepting that these conditions are now operating in the 'information age', exercised over digital networks of power that characterize the 'network society', requires that interventions occur within that framework. If the Internet is affecting us all, whether we are connected or not, a new notion of 'digital divide' and what the networked dynamic of exclusion and inclusion means to use is needed.

4.0 The Network Society

We are often reminded that globalization is not a new phenomenon (Keohane & Nye, 2000) but it has so recently accelerated at a pace and reach that is hard to comprehend, evaluate, and react to (Stiglitz, 2002; Bauman, 2005). The same can be said of the tightly related process of informational and social networks. Barry Wellman's seminal piece, The Community Question (1979), revealed the close and supportive networks of relationships in a restructured and industrialized post-war Toronto community. This study illustrated that the perceived loss of 'solidarity' from tight knit, unified, neighbourhood of the past did not mean a loss of community functions. Rather, ties remain intimate but are 'liberated' across a variety of different networks, showing that community was in essence a social structure rather than a primarily spatial structure. Revisiting similar concerns about isolation and lost community in the information age, Hampton and Wellman (2003) found that Internet use supported ties with neighbours and facilitated mobilization around local issues.

Personal mobility and communication technologies may enhance and liberate an individual's relations from local boundaries but this evidence only supports the assumed benefit to effective users of the Internet and its function as an enabling technology. Looking at the broader societal and structural impacts of rapid technological changes, urban theorists have begun to describe the intangible networked informational dynamics of society as contemporary mediator of culture, nature, economies, and built form in our cities that are marked by exclusion as much as liberation (Wilkins, 2010; Sassen, 2001, 2006; Castells, 2000). These networks are regionally and globally interconnected and, although some aspects are physical such as airports, are largely flows of digital communication from social media to capital transactions. Information technologies have transformed our cities yet the importance and operation of these flows has been overlooked or of little interest to urban researchers because they don't have an urban geography in the conventional sense (Graham, 2001).

As Graham (2001) notes, proximity does not equal meaningful relationships:

> Virtually all cities across the world are starting to display spaces and zones that are powerfully connected to other 'valued' spaces across the urban landscape as well as across national, international and even global distances. At the same time, though, there is often a palpable and increasing sense of local disconnection in such places from physically close, but socially and economically distant, places and people. (48)

Manuel Castells (2000, 2004b) has made the relationship between the 'space of flows' and the 'space of places' central to his studies on the 'network society' and congruent to the personal dichotomy between 'the net' and 'the self'. These concepts illustrate the friction between locale or individual and the global informational networks that have undermined and/or reconstructed our traditional identifiers. The space of flows allows for "simultaneity of social practices without territorial contiguity" (1999, p. 295) and constitutes an infrastructure of global and interdependent societies, marked by integration and exclusion alike. However, every dimension of the network society has a spatial manifestation (Castells, 2009) and these remain our homes, neighbourhoods, cities, regions, and natural environment.

Castells (1989) originally posited that the liberated networked logic of the space of flows dominated the space of place to such an extent that resistance or irrelevance to its social, economic, and cultural hegemony meant certain localized marginalization. Zygmund Bauman provides some metaphors for the selective and mobile nature of global capitalism in the space of flows. He has used the term "absentee landlords" (1998) in describing the character of global wealth and the notion of a "liquid modernity" (2000). In the past, exploitation was somewhat tempered by constraints of place necessitating a degree of responsibility and connectedness to the local. Networked capital interests, however, can disconnect any node near instantly as value or risk shift. The character of this network logic in informational capitalism breaks down previous ideas of 'first' and 'third' world geopolitical divisions. Its selective, liquid nature gives new opportunities for those of current value and connection across these

boundaries while at the same time threatens the creation of a fourth world of exclusion equally indiscriminate of borders (Castells, 2000, 2004b).

However, recognizing the increasing and persistent social dimension of the space of flows after an "initial moment of exclusion" (1999, 297), Castells adds that wherever there is imposition of meaning, there are projects of construction of alternative meaning and that the grassroots of societies do not cease to exist in the Information Age (298). Those who inhabit it are transforming the space of flows and its dominant discourses. This idea is further expanded to realize that not only is resistance and agency possible, but a new process of communication can exist between actors:

> The common culture of the global network society is a culture of protocols of communication enabling communication between different cultures on the basis not of shared values but of the sharing of the value of communication. This is to say: the new culture is not made of content but of process, as the constitutional democratic culture is based on procedure, not on substantive programs. Global culture is a culture of communication for the sake of communication. It is an open-ended network of cultural meanings that can not only coexist, but also interact and modify each other on the basis of this exchange. (Castells, 2009: 38)

The term 'netizen' has been used to describe membership in a global community with core values of open access and free speech online that transcend cultural differences. The solidarity of blogging communities and social media groups demonstrate support for the process, as seen in the international technical assistance given to users in North Africa or the citizen media site globalvoicesonline.org.

There is more to the network society than the digital infrastructure and technologies that give rise to new communication practices, including the spread of a multicultural range of actors that are intermixed around the world in different combinations of connection and fragmentation. The information age is also the age of migration (Castles & Miller, 2003). Restructuring of post-industrial economies around service and technology sectors has given rise to a mobile workforce of talent that has become a driver of local economic development and urban renewal. Popularly referred

to as a 'creative class' (Florida, 2002), many municipalities are competing to attract and retain this "intensely mobile" (Toronto Culture Plan, 2003, p. 1) group with plans and policies that invest in the cultural appeal and perceived competitive advantages they demand (e.g. Toronto, Agenda For Prosperity, 2008). The transformation of urban areas into spaces of cultural consumption for the creative class is one manifestation of the 'spaces of flows' in the 'space of place'. Critics of 'creative' policy point to its commodification of difference as being highly circumscribed and marginalizing (Catungal & Leslie, 2009). Furthermore, the rise of these 'global cities' (Sassen, 2006) creates new levels of disparity and divide between the mobile elite and the growing class of low-wage service occupations that support them (Donegan & Lowe, 2008). This is often the domain of another aspect of the age of migration and networks that includes the millions of economic migrants and refugees from around the world that settle in growing urban areas (Castles & Miller, 2003).

Sandercock (2003) describes a "new urban condition in which difference, otherness, fragmentation, splintering, multiplicity, heterogeneity, diversity, plurality prevail (1)" and argues that rather than fearing a loss of what was, we need to see opportunity to build a new society, a multicultural project on the resources of difference in our cities. Instead of assuming a static view on differences to be overcome, Arjun Appadurai (1996) combines the effects of migration and electronic media to illustrate how individuals are always in a process of reconstructing meaning. Migration and media provide "resources for self-imagining as an everyday project" as "moving images meet deterritorialized viewers (4)." Appadurai argues that through motion and mediation in a transnational public sphere the imagination has become real and powerful social practice. This idea of dynamic differences fits well with the observable reality and hybridism in contemporary cities where residents are no more living the same way as their culture of origin than they are that of all their neighbours. Multicultural cities are not a not a collection of static world cultures, they are the site of dynamic flows of identities, images, and ideas.

The image, the imagined, the imaginary—these are all terms that direct us to something critical and new in global cultural processes: the imagination as social practice. No longer mere fantasy (opium for the masses whose real work is elsewhere), no longer simple escape (from a world defined principally by more concrete purposes and structures), no longer elite pastime (thus not relevant to the lives of ordinary people), and no longer mere contemplation (irrelevant for new forms of desire and subjectivity), the imagination has become an organized field of social practices, a form of work (in the sense of both labor and culturally organized practice), and a form of negotiation between sites of agency (individuals) and globally defined fields of possibility. This unleashing of the imagination links the play of pastiche (in some settings) to the terror and coercion of states and their competitors. The imagination is now central to all forms of agency, is itself a social fact, and is the key component of the new global order. (Appadurai, 1996, p. 31)

The Internet presents a new workplace for the imagination. Appadurai hypothesizes the dynamics of global cultural systems are driven by the relationships among flows of person, technologies, finance, information, and ideology. To these terms he appends the suffix –scape to illustrate that they are "deeply perspectival constructs" (p. 33) and notes "the relationship of these various flows to one another as they constellate into particular events and social forms will be radically context-dependent."(p. 47) This multiplicity and contextualization is importantly being recognized in many fields and the likeness to Internet navigation is compelling.

Because the space of place, thus our material and environmental well being, is determined to a large extent by the space of flows, and the space of flows is open to transformation by effective inhabitation, the meaning and importance of access is more complicated than how the digital divide problem has commonly been presented. The City of Toronto's Open Data slogan, *"building a city that thinks like the web"*, appears to be grounded more in reality than one might have imagined. This is not to say that the initiative is doing so, but that a "city that thinks like the web" is a surprisingly appropriate metaphor. The implication is that the planning profession has to learn to operate within the space of flows and, to be inclusive in that environment, be primarily concerned with managing or facilitating connections (Castells, 2004a). A conclusion that can be drawn from the 'network society' discussion is that access or literacy, though both challenges,

are not sufficient to explain where meaningful empowerment is to found. Rather, it is the ability to operate within the spaces of flows as a shaper of the spaces so that the deliberative discourse includes marginalized voices. Participation is not genuine unless one's values and culture are inscribed in the interaction and thus added to the collective organizational structure of the web.

5.0 The Role of Communication in Planning

By the mid-1960s, cracks were forming in the technocratic and modernist approach to planning, as well as other professions. These cracks came from a range of social, political, and professional movements began questioning the values and processes of planning. Urban renewal, for example, was reexamined and attempts were made for approaches more contextually, equitable, participatory. The environment also reemerged as a concern in civil society. A plurality of approaches emerged, at least theoretically, as the notion of 'public good' and planning process was challenged (Hodge & Gordon, 2009). The critique of rational planning as a process and its failures in practice brought about reformers with neo-Marxist analysis of the roots of inequities and calls for a more democratic and participatory model (Healey, 2003). Fainstein (2005) outlines how the theoretical response to overcome the vague normative goal of power redistribution has formed around the communicative process. It was argued that "by speaking truth to power, employing multiple forms of discourse, and engaging all stakeholders in the communicative process, it would be possible to attain a more just outcome (125)."

Fainstein argues that the focus on communicative planning is naïve because it is divorced from, or avoids, the fundamental inequalities and operation of power in society. In building a case for planning to concern itself with the ideal of social justice, the 'just city', Fainstein asserts that we need to maintain focus on redistributive ends, not only means. To stress the importance of this she indicates that there may be cases where inclusionary processes are circumvented in the interest of the disadvantaged, that "the development of affordable housing, the placing of community-based facilities for disadvantaged populations, and the protection of the environment from toxic wastes are as likely to derive from court decisions as from deliberative democracy (126)."

Fainstein's position is that the object of planning should be the "right to the city" (Lefebvre, 1991, Harvey, 1992, 2009), that planning theory is not viable unless it is

rooted in the context of power in the city, and that context ultimately shapes our discourse. Thus, discourse and process alone as theory are inadequate. Connecting planning to the debates of marginality, identity and difference, and social justice is crucial for empowering groups not currently being heard by planners (Sandercock, in Fainstein, 2005). Fainstein's argument for the need to consider the context of urban theory in planning theory is clear. However, in light of the development of theory about substantial changes to society and, in turn, our built environment, the extent we can rely on traditional Marxist notions of capital and power in our cities is less clear. If a major transformation in urban theory is based on the effects of communication networks, then the role of communication in the type of planning approach advocated by Fainstein needs to be reconsidered. In other words, communication can no longer be looked at as a process to overcome structural injustice and instead needs to be considered as a primary structure itself.

"Cities accumulate and retain wealth, control and power because of what flows through them, rather than what they statically contain" (Beaverstock et al. in Graham, 2001, p.xxxi). In his discussion of power, Castells (2009) is careful to outline how the power of dominant structures such as capitalism are reflected and exercised in the communication networks. However, against common ideological perception, the multidimensional social structure of the networks allows for that power to be challenged in new ways:

> Capital has always enjoyed the notion of a world without boundaries, as David Harvey has repeatedly reminded us, so that global financial networks have a head start as the defining instances of value in the global network society (Harvey, 1990). Yet, human thought is probably the most rapidly propagating and influential element of any social system, on the condition of relying on a global/local, interactive communication system in real time – which is exactly what has emerged now, for the first time in history (Dutton, 1999; Benkler, 2006). Thus, ideas, and specific sets of ideas, could assert themselves as the truly supreme value (such as preserving our planet, our species, or else serving God's design), as a prerequisite for everything else. (Castells, 2009, p. 28)

Thus, the implications of a 'network society' and the role of communication processes in the exercise of power (inclusion/exclusion) place participation firmly in the discourse of justice that Fainstein is concerned about and any basic 'right to the city' includes rights to the 'spaces of flows'. Innes and Booher (2000, 2002) propose a collaborative model of planning that is built explicitly on the concept of networked communication. They argue that traditional methods of participation do not work- they do not successfully create genuine participation from the public, do not provide sufficient information to officials to improve decisions and do not represent diverse populations (2000, p.2). Yet, they have been ritualized in the routines of most institutions. Alternative methods of soliciting public opinion through polls or surveys are methods that inform but do not produce effective participation (p.4). Multi-way discourse through interactive and collaborative methods of deliberation are emerging as the most promising and significant alternative, yet are hindered by the current bureaucratic processes so they largely exist in more informal spaces, around the edges of formal institutions of government such as partnerships between nonprofit agencies, universities, and neighbourhood organizations (p.5). Surveying the array of emerging collaborative methods, such as implementation strategies for the Local Agenda 21's mandate for sustainable development in European cities like Lisbon where experts and residents worked together to create their own sustainability agendas (20), they build a theory on principles and practices that can make collaborative dialogues effective methods of public participation.

The current planning practices are characterized according to the levels of diversity and interdependence of interests in the table below:

Figure 5.1
Four Models of Planning and Policy Making (Innes & Booher, 2000)

	Diversity	
	low	high
low	Technical Bureaucratic *Convincing*	Political Influence *Co-opting*
high	Social Movement *Converting*	Collaborative *Co-evolving*

Interdependence of Interests

Innes and Booher (2000) believe the collaborative model is the only one that can accommodate the enormous fragmentation of interests and values we confront in public arenas today. They hypothesize that as collaborative methods proliferate, people will develop skills, norms, and the capacity for a more authentic deliberative democracy (23). Collaboration must be built upon principles of not just two-way information flow but of interactive venues of deliberative democracy. In this model, as illustrated below, the citizen participates with multiple interest-based entities and even if there is no direct connection between two groups, there is a flow through the system as a whole (26).

Figure 5.2
*Traditional Paradigm for Citizen Participation (Innes & Booher, 2000)*
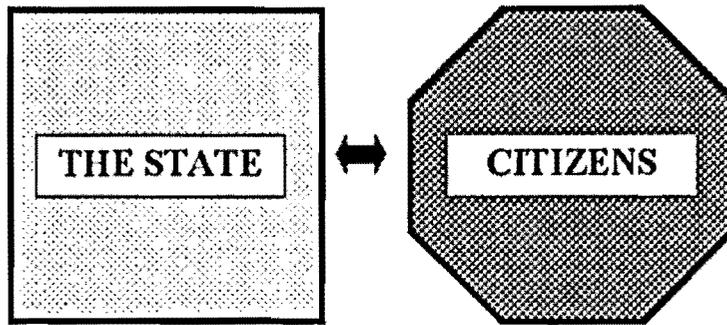
Figure 5.3
Collaborative Network Paradigm for Citizen Participation
(Innes & Booher, 2000)
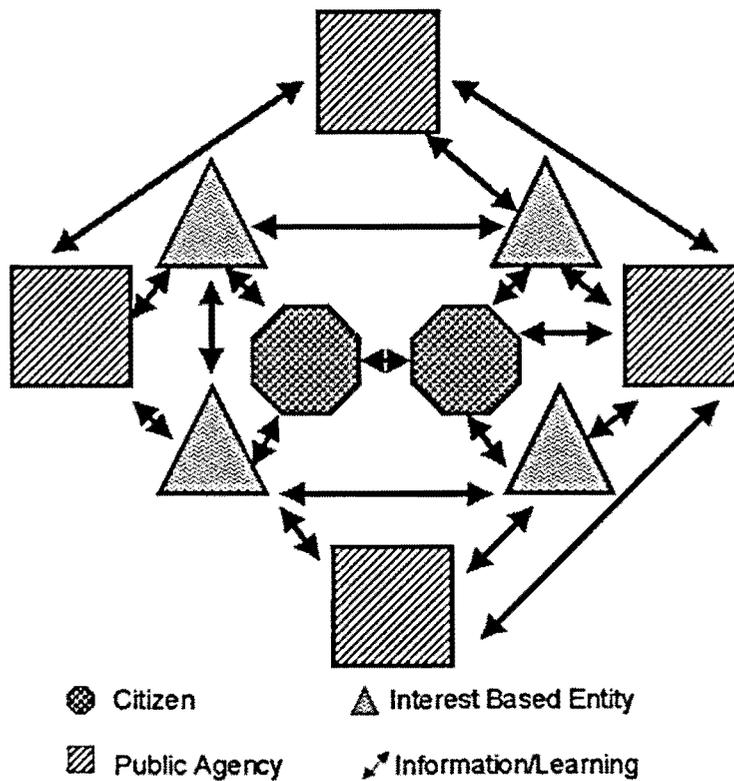
Network management takes place in a context where there is no shared public opinion about which way to go and no clear set of goals. There is no hierarchy and there are no clear decision rules on which the network actor can rely. The benefit of having networks and encouraging their efficient use in the information age — the age of rapid change, fragmentation, and globalization — is that this model is not only potentially more inclusive and empowering to more players than the traditional ones, but also that it is more able to respond quickly and help the planning system to adapt creatively to challenges than the old style. Networks allow many types of knowledge and information to flow through the system rapidly. (Innes & Booher, 2000, p.29)

Despite building this collaborative model that is analogous to many descriptions of interaction on the Internet, Innes and Booher group Internet technology under the heading of 'traditional methods'. Although they acknowledge that more interaction could develop, they state, "Nonetheless, the Internet model inevitably lacks the authenticity of dialogue that can come through in-person discussions (9)." Again in *Network Power in Collaborative Planning* (2002) Innes and Booher build the case for collaborative planning explicitly on Castells formulation of the 'network society' and make no mention of the Internet. This is striking because the Internet is a defining communication medium in networked power (2009). Castells refers to the historically new ability to send self-generated messages over the Internet to a variety of receivers in numerous configurations as "mass self-communication" and observes that on the Internet:

> The three forms of communication (interpersonal, mass communication, and mass self-communication) coexist, interact, and complement each other rather than substituting for one another. What is historically novel, with considerable consequences for social organization and cultural change, is the articulation of all forms of communication into a composite, interactive, digital hypertext that includes, mixes, and recombines *in their diversity* the whole range of cultural expressions conveyed by human interaction. (p.54, emphasis original)

In addition to the diversity, Castells (2009) repeatedly makes the point that the Internet allows for communication among great diversity of culture based on a common value of that communication. These two factors indicate that his model of communication power is aligned precisely with Innes and Booher's model of the factors

required to achieve effective collaborative planning. Innes and Booher (2005) refer to collaborative networking as a process that, with experience, "creates a new form of power as players develop shared heuristics and as information flows through the network and results in new forms of distributed, self-organizing action (428)." Experience with web-based communities has illustrated this is type of capacity building for users (Wellman, 2003; Mossberger et. al., 2008).

6.0 What Shapes the Structure of the Web?

"We look at the present through a rear view mirror. We march backwards into the future" (Mcluhan, 1967, p.75)

The above quote by Marshal Mcluhan characterizes the tendency to use new technologies to do or perceive things in the same manner or by the same standards as done in the past. Appreciation for the proliferation of accessible data and increased efficiency notwithstanding, this has been generally true for most of our experiences with networked computer technology. Beginning with our 'desktop' and the 'folders' we organize our files with. During the first years of widespread Internet use, websites were organized by category in large directories like the shelves in a library.

The standardization of open Internet protocols and introduction of graphical browsers opened up a nonlinear, non-hierarchical, linked universe of material known as the World Wide Web. Self-publishing and linking of content were certainly possible then and these features remain among the most important characteristics. However, this was not user-produced because it required a higher degree of programming skill, and more ·importantly, websites were static documents. They were produced much like a paper documents. That is, the author (programmer) composed pages as they would be seen, including the references (links) and descriptions (metadata). The significance of control over links, descriptions, or categorization cannot be underestimated. Although static hyperlinks allowed for a multiplicity of readings, the reader had no way to effect change in the structure or content of the material. Like chapters in a book, the content existed in one place on the authored website and just like the publishing industry, distribution was controlled by relatively few experts.

The question of power over the value of knowledge, and of diversity in local knowledges in particular, remained largely unchanged in the initial move to digital forms. The categorization of knowledge is often taken for granted but reflects social, cultural, ethical, and political choices that represent the way of knowing that we value. Maja van

der Velden (2010) illustrates this point through the example of the Xwi7xwa library, a University of British Columbia library specializing in local First Nations' material from their own perspective, but nonetheless subject to the standard library classification systems. Despite the community being an integral part of the library's operation, it is nearly impossible to find material using their own terms. She contends "there is a connection between the Musqueam people's territorial marginalisation and their marginalisation in the Library of Congress classification system and, consequently, the classification system of the University of British Columbia. (8)" The Internet allows for a completely different paradigm for the organization of information, one that could be a paradigm that is more open to multiple ways of knowing coexisting and creating new knowledge.

The separation of form from content (through new programming languages such as XML) made the WWW dynamic and ushered in the range of practices we call web 2.0 (Wesch, 2007). It is the separation of form and content that has made user content possible not only to be published, but also to be navigated effectively. Content is now described rather than formatted and based on its descriptions it is free to be formatted by a variety of applications in multiple contexts. Personal websites become blogs, which are really just chunks of information uploaded into the database. A template, or platform, determines the context and appearance. The ability to create stable links between content independent of format "turned weblogs from an ease-of-publishing phenomenon into a conversational mess of overlapping communities" (O'Reilly, 2005).

The majority of discussion of the landscape of Web 2.0 is focuses on the generation of online content by individual users, such as photo sharing, blogs, comments, or the accompanying geospatial data. From the point of view of researchers concerned with accessing this increasing mass of potentially useful data, or planners wishing to take advantage of the wider discussion forum, the provision of information is understandably of primary concern. However, online deliberation is mediated by the

organizational structure of the web as users are processing content, not just producing it (Wesch, 2007).

Although the term Web 2.0 did not arise out of any particular quality, definitions and characterizations of what it is abound (O'Reilly, 2005). The use of the software version numbering most significantly indicates that something is different from the first generation of uses. The most useful distinction for my purposes is the transition from a static to dynamic environment; from knowledge as being written to knowledge being performed. This is the difference between the idea of a static objective truth that can be authoritatively recorded and the idea that *meaning* is dynamic and contextually constructed.

'Tagging' provides an easy illustration of user classification of data. Retuning to the above example of the Xwi7xwa library, the act of tagging content as "Musqueam" means it can be drawn via a search with that term as well as with the standardized library classification terms. In essence it can exist in both 'locations', in both ways of knowing it. The ability of any user to assign tags outside of expert systems has been referred to as 'folksonomy'.

> The value in this external tagging is derived from people using their own vocabulary and adding explicit meaning, which may come from inferred understanding of the information/object. People are not so much categorizing, as providing a means to connect items (placing hooks) to provide their meaning in their own understanding. (Vander Wal, 2007)

The popular sites, such as Facebook, that we associate with Web 2.0 are actually just platforms that have taken advantage of the collective organization of data and they gain strength by the actions of the users. When a user logs in to Facebook, they do not see a pre-authored website. Instead, they are seeing an aggregation of profiles, comments, pictures, advertisements, etc. that have characteristics relating to those specified by the user, directly or indirectly.

Pessimists of the proliferation of user-created content have in effect lamented the loss of an information authority and decry the amount of trivial information on the web (Keen, 2007). Yet the "crowdsourcing" of information production and organization continually displays resilience and an ability to provide data relevant and satisfying to the majority of users (Shirky, 2008). Quality control is not achieved by focusing on the quality of everything published but in the navigation of content relative to the user. Navigation is controlled by the way we are directly or indirectly describing all the content we process as users of the Internet.

> "description is itself a political act... it is clear that redescribing a world is the necessary first step towards changing it" (Salman Rushdie, 1992, p. 14)

Mass participation in assigning attributes and separation of form from content can explain how an individual can upload a home video and have it viewed nearly 60 million times. YouTube content can be embedded, or displayed, in almost any type of web application, freeing it from the context of the source. When a video is watched that viewing becomes one of its attributes. Collective sorting and ranking empowers the users to establish the value of information and its classification. At times, such as 'most viewed' on YouTube, this can resemble simple voting, but it also allows for multiplicity of meanings and recombination of information.

With traditional broadcast and print mediums, as well as the first generation of the web, the sender controls the presentation and context of information. While audiences have always had a degree of agency in meaning making from experience (Fiske, 1987), the web now allows for content to be read alongside and combined with other content that explores its validity to the reader. A simple example is subscription and aggregation services that allow a user to view multiple sources of information on a given subject in one place, formatted as the user chooses. Alternatively, a user can 'mash' content together to reveal previously masked narratives, as is often the case when data is graphically displayed on a map.

There is a conception that through collective organization of content users are 'teaching' the web to reflect our collective ways of using information (Wesch, 2007b). O'Reilly (2009), credited with coining the term web 2.0, uses the metaphor of the web as a child, and the collective of users as its parents. Google is one example of a "learning" technology. A complex algorithm tracking users navigation as well as the collective descriptions that are amassing influences the results returned from a search. The idea of 'parenting' the web is useful in questioning whether characteristics of the web are inherent in the technology or reflective of those who use it. However, this metaphor risks framing 'the web' as a singular personality, one 'child', that contradicts the nature of networks and may be more usefully applied to evolving and increasingly complex web entities such as Google or Facebook. These entities exist on the open web but have their own hierarchies and regulations. The web as reflection of users is nonetheless of importance when considering the operation of power as contingent on the collective value system of users, as posited by Castells in the previous section, and the ability of shared communication across cultures to effect change. In this sense, other ways of knowing are absorbed in a constructive, rather than destructive manner.

7.0 Discussion: Fostering Diversity Online

> The ability or inability to generate protocols of communication between contradictory cultural frames defines the possibility of communication or miscommunication between the subjects of diverse communication processes...Web 2.0 may be the protocols of communication that either bridge cultural divides or further fragment our societies into autonomous cultural islands and trenches of resistance. (Castells, 2009, p. 56)

Empirically and theoretically, the Internet has been held up as a not only a new communication medium but also a new organizational form of society and thus our urban form. However, this creates a second layer to the problem represented by the digital divide. The first remains the fact that a large portion of society still does not have an appropriate means or desire to access the potential of the web, no entry point to the 'space of flows'. The second layer is added when we accept that the network logic of Internet is increasingly the dominant source of power and despite its malleability, the ability of actors to resist being merely of consumer value depends on constructive use of the knowledge-making potential of interactive web 2.0 practices.

This section is divided into two main parts. The first part deals with engagement across the access component of the 'digital divide' and suggests strategies for engagement that, despite the participant's lack of direct Internet involvement, are grounded in the concern for a presence of their way of knowing in the 'space of flows'. This discussion is framed in the context of collaborative planning presented by Innes and Booher (2005) as an interface between connected and disconnected groups.

The second part of this section is divided between the two separate but related goals of creating a space to solicit diverse voices and communicating a message to diverse audiences. The characteristics of web 2.0 applications have allowed active participants to reorganize knowledge and effectively participate in the transformation of dominant discourses. Additionally, web 2.0 tools provide effective means to communicate across traditional boundaries of linear media and interest groups.

Deciding to use the Internet as a medium of communicating with a diverse public must involve careful consideration of the values imbedded in the processes chosen. Being in a position to choose this strategy indicates the power to influence the network by inserting discussion into the space of the web.

7.1 Collaborating Across the Divide

In 2009, just over 80% of Canadians used the Internet (Statistics Canada, 2009). That is a large majority, but it leaves many out and does not reflect the type of use or quality of use. Among home users, 56.5% searched for information about their governments, 26.9% communicated with their governments, 2.5% provided an opinion during online government consultation, 50% researched community events, and 26.7% reported contributing content of some type (Statistics Canada, 2009). There is room for great variation within these categories and with the selective nature of individual Internet use, it can be assumed the even the most connected citizen is not connected to everything.

If the traditional means of participation are not effective (Innes and Booher, 2000) we cannot leave them as the default for communities without an online presence as we embrace the potential of Web 2.0 methods. Innnes and Booher (2000) have proposed that networked collaborative planning is the best alternative. This discussion is focused on ways of integrating online and offline participation rather than alternative methods in general. There are many ways the collaborative model can bridge the divide between online and offline worlds. The primary advantage of this model is that it does not rely on direct connection for effective inclusion and collaboration as information can flow through the system as a whole. Thus the online and offline dialogues do not need to be considered as disconnected spheres.

The current engagement campaign by the City of Calgary gives some examples of how this might look in practice. In the past year the City has greatly increased its online

and interactive social media presence that is integrated with offline methods. At this time the City is entering the second phase of participation for the 2012-2014 business plan and budget process. This phase is being called Understanding Priorities and is intended to inform citizens about municipal services and hear from citizens about what services are important to them. The central document for this process is a "budget kit" that includes an information booklet and a survey (City of Calgary, 2011).

The budget kit booklet and survey are available online and as a paper copy throughout the city. What makes this process different than a standard opinion poll is the City's effort to connect with networks of interest-based groups, thus not relying on direct connection between the City and citizen or the citizen to the Internet. In addition to hosting forums, the City is offering training and encouraging citizens, staff, and community groups to use the kit to host their own discussions. The kit can be completed and submitted by groups or individuals. Anyone wishing to host an open discussion can submit the details to a central calendar of events. Because the information submitted is summarized and becomes part of the online information shared via YouTube, Twitter, Facebook, Email lists, and the blogs, a resident need not participate online to have their discussion included in that sphere. Results from consultation with various community groups are circulated in what has become an active flow of information on a variety of web platforms. In addition, the multimedia content being produced and stored online can be used in discussion at physical meetings.

Another site of integration is the "Calgary Budget TV" YouTube channel. The city is encouraging residents and community groups to upload videos related to the budget discussions. However, they have also reached out to the network of community-based organizations to include their voices in this project. For example, video sessions were held at an inner city shelter and social services centre for people who would not otherwise be able to participate online, creating an indirect connection. These voices can then be found together as a diverse discussion rather than separate and independent sources for decision makers.

In a comparison of online and face-to-face discussions about climate change issues and environmental policy, Talpin and Wojcik (2010) found that putting content online also acts as an important record of oral and written contributions that be reviewed and reflected upon after the face-to-face events. Adding this content online also reduces visible social cues, a characteristic that could increase participant interaction with it (Talpin and Wojcik, 2010).

Waisbord (2005) has identified the need for a 'toolkit' of media methods as for effective participatory communication. This is in recognition that no one approach is appropriate for a diverse population and methods need to be contextually sensitive. The 'toolkit' notion is inclusive if it is thought of as being different tools for a complex job rather than different tools for different jobs. The right of access to information can be considered as being able to choose varied and relevant media as well as have opportunity for feedback of reaction and needs into the information programming (Servaes & Malikhao, 2005). Therefore, mechanisms are required to ensure feedback throughout the information system, regardless of the specific method chosen.

Figure 7.1 Twitter posts tagged #yycbudget

cityofcalgary #yycbudget community forum tomorrow 9 a.m. #yyc Coast Plaza Hotel http://ow.ly/4sYxu
about 16 hours ago via HootSuite

oowefawe RT @ThriveCalgary: Living on low-income? Know someone who is? #yycbudget workshop hosted by @momentumcalgary and @VibrantCalgary on April 21 to get input!
about 16 hours ago via web

RozsaFoundation RT @calgaryartsdev: NEW Arts Community Budget Session with Keynote Speaker Jeff Melanson on Friday, April 15: http://bit.ly/gBlYtd #yyc #yycbudget
about 17 hours ago via TweetDeck

Figure 7.2 'wall' posts on City of Calgary Facebook page

The City of Calgary

Calendar | Site: Our City. Our Budget. Our Future.
ourcity-ourbudget-ourfuture.blogspot.com

Are YOU coming? Don't wait – participate! Our City. Our Budget. Our Future. Community Forums happening all week this week. Join your neighbours, friends and colleagues in conversation about City services, values and priorities. Check the calendar of events at calgary.ca/ourfuture

Wednesday at 8:18am · Like · Comment

👍 Anne Harding, Enan Balane, Protesting Prism and 4 others like this.

Elizabeth Harcus My concern is with the marginalized citizens of Calgary. They may not be tech savvy, they may have poor English language skills, they may have disabilities. Have all the groups who work with these people been informed of this budget discussion?
Wednesday at 1:19pm

The City of Calgary We looked into this and the team working on it told us they are working with community groups and organizations to share information and materials and support involvement of all citizens, including those you mention.

They have actively reached out to those citizens through a variety of channels – an example you can see, is a variety of citizens with many different experiences on Budget TV.

On April 12th, they will be working with the Ethnocultural Council of Calgary and the Immigrant Sector Council of Calgary to talk about Our City. Our Budget. Our Future. All are welcome and more information can be found at calgary.ca/ourfuture.
Thursday at 7:57am · 👍 1 person

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7.2.1 Creating a Space for Diverse Voices

> In Wikipedia we can search the term wolf to get an answer on the question what is a wolf? This question makes sense for some, but what if wolves are part of your daily environment? In some Indigenous cultures the important question to ask is who is a wolf? Knowledge of the behaviour of a wolf is in these cultures more important than a description and classification of the wolf according to Linnaeus. (van der Velden, 2010)

The proliferation of user-specified information on the Internet largely occurs in informal spaces (blogs, photo sharing, news comments, etc.) and the ability to incorporate volunteered information into more formal planning processes has raised concerns over its veracity (Keen, 2007; Bishr & Janowicz, 2010) due to the lack of professional gatekeepers and quality control standards (Flanagin & Metzger, 2008). Volunteered information online is unusual in the sense that it is often treated, or desired to be, 'data' in a technical or scientific sense. User-produced content on the Internet should be viewed foremost as communication rather than data and the users not as sensors (e.g. Goodchild, 2007), but as people with socially constructed viewpoints.

The concept of information reliability cannot be separated from a set of values that is used to determine its accuracy. The discussion about power in the network society illustrates that network logic is one of inclusion and exclusion based on the values programmed into the network (Castells, 2009). Valuing only 'technically accurate' information as determined by experts effectively precludes participation and representation of diversity. Sandercock (2003) argues that there are different kinds of appropriate knowledge in planning. "Local communities have experiential, grounded, contextual, intuitive knowledges, manifested through speech, songs, stories, and various visual forms from cartoons to graffiti, from bark painting to videos. Planners have to learn to access these other ways of knowing (34)." Stressing her last point, it is not the local community that needs to access the planner's way of knowing. Fortunately, the Internet allows for a variety of ways to include multimedia communication of local knowledges, if the community is given the freedom to determine the expression.

As seen in the concept of digital divide, we often view a certain level of technical literacy as a necessary factor for participation in Internet discussions. There are certainly a number of skills, from using input devices such as a mouse to effectively using Internet search tools like Google that we often take for granted. More critical, however, is how we structure or value the information we are using it to process. When engaging with a diversity of cultures, the question is not just the level of computer literacy they hold, but also the level of intercultural literacy that informs the project. Just as the digital divide concept cannot be simply about access to computers and the Internet, multicultural literacy is not a question of language translation. Planners need to respond do diversity with a literacy that values "alternative forms of knowledge and methods of knowing, including traditional ethnic or culturally specific modes (Sandercock, 1999, p.95)." Experts are concerned that online information masks the indicators of information credibility (Flanagin & Metzger, 2008). However, expert-defined criteria can mask the bias of Internet tools and hinder the expression of multiple epistemologies.

Maja van der Velden proposes the idea of "cognitive justice" as a framework that removes the notion of an objective expert position in the design of information technologies and instead focuses on the 'knowers' and the environments in which their knowledge is situated (2005). She describes a database developed for a project for Indigenous Knowledge and Resource Management in Northern Australia that sought to balance the compatibility of digital technologies and indigenous knowledges. The goal of the database was then to avoid the imposition of classification and instead allow the community of users control over the organization and display of the multimedia content. "If we assume rather that knowledge is produced at the point of performance of situated understandings we come to the conclusion that the producers of knowledge are to be inextricable involved in its production and reproduction" (Verran et al., in van der Velden 2010, 15). Van der Velden compares this database, called TAMI, to Wikipedia, "In TAMI knowledge doesn't exist, it becomes: knowledge comes into existence as the result of the ordering of objects. In Wikipedia one is a knower if one's knowledge fits Wikipedia's

informational ontology. In TAMI one becomes a knower by performing knowledge, by making connections between the digital objects in the database (17)."

On the web, however, databases do not exist in isolation. The separation of content from form in the Web 2.0 environment and its capacity to allow for a multiplicity of orderings, or 'performances', of content makes it possible to accommodate other ways of knowing. Outside of expert imposed ontology, the democratic nature of communication technologies can be realized when local knowledges are given not equal value, but equal right and opportunity to be valued by their users. In addition, the recombination of different, previously incommensurable knowledges is a process of new knowledge generation that values diversity of sources for interdisciplinary innovation, power-making, and cultural creativity (Castells, 2001, p. 11). Rather than merely providing an opportunity for user-generated information, engagement should allow for the user to define what is shared according to their values, not those of the institution wishing to access it.

'Cognitive Justice' presents a framework for the implementation of web-based communication that can meet Sandercock's call for methods that have multicultural literacy. The principle that should guide the design, ownership, and use of technology that appreciates diversity is that the users of the tools should determine the way in which the knowledge is coded and the tool used should be flexible enough to ensure that their values are inscribed and visible (Van der Velden, 2005).

7.2.2 Reaching Diverse Audiences

The field of communication for development has been dominated by two conceptual models: diffusion and participation (Morris, 2003). The diffusion model has its roots in modernization theory where the impediment for development was seen as a lack of knowledge and the solution its vertical dissemination to induce behaviour change, a social marketing approach. In contrast to the diffusion model, participatory communication is horizontal and dialogical to address inequalities and the neglect of local knowledge. One of the strengths of participatory communication over diffusion, or for that matter with people as socially and cultural diverse beings rather than sensors, is the opportunity to understand what and how they know or think about an issue. Only then can an effective communication strategy be developed around the interests of citizens. Pratt and Rabkin (2007) illustrate the importance this understanding in the experience of San Diego's communication strategy for its Climate Protection Action Plan. Past efforts at engaging citizens had been surprising failures to the environmental experts whom had carefully prepared and invested in strategies around issues they thought of obvious concern. In the new approach, the City began by giving the residents an opportunity to express what issues they believed were of concern. The results showed that, in the eyes of the experts, the residents were "wrong". For example, less than half rated energy and water conservation as 'very important' despite a recent electricity crisis and that the region imports nearly 90 percent of its water. The public perception also diverged from experts about public transit with a majority thinking use had been increasing when in fact it had decreased. By listening to what residents knew, valued, feared, desired, and misunderstood about local environmental conditions, the City can engage with residents on common ground and with effective messaging.

Understanding the audience is critical to developing communication but even the best-crafted messages are ineffective if they are not heard. In the Web 2.0 environment,

a single uploaded video has the potential to go 'viral' and spread to millions of viewers. While this is highly unpredictable and unlikely to happen in most cases, there are some basic Web 2.0 characteristics that be harnessed. The United States military is developing a program to create fake online identities to spread pro-American propaganda on foreign social networking sites (Jarvis, 2011). Although they have long used propaganda, including paying to have positive news stories run in foreign newspapers (L.A. Times, 2005), this new strategy illustrates confidence in the medium as a social force. There are of course more ethical options to reach people of various different cultures.

What the U.S. military is doing with social networking sites is an example of trying to take advantage of "third places" created by Web 2.0 platforms such as Facebook (Chadwick, 2008). These spaces are different than the open web because they are environments in which people construct many different aspects of their online life, thus "political life 'piggybacks' on the everyday life context... in much the same way as 'third places' function in community-building, social capital, and civic engagement away from the home and the workplace... Politics in Facebook goes to where people are, not where we would like them to be (Chadwick, 2008, p.30). For this reason, many organization's websites have the option for users to include a link or 'like' the issue in Facebook, where it is absorbed into the content of that platform in the context of the users. This concept is not limited to platforms such as Facebook as many sites or tools are showing characteristics of 'third places'.

Chadwick (2008) identifies the "granularity" of the Web 2.0 as having the most potential by lowering the threshold for citizen/government interaction. Rather than a high profile singular model, deliberation can occur in various 'third places', and potentially reach a more diverse audience. The separation of content from form and the ability for multiple descriptors and "folksonomy" allows a message or conversation to appear in a variety of different contexts. Tagging and grouping of photos by users on the sharing site Flickr illustrates the potential of this to expand discourses and create multiple meanings.

Tags for the photo on the left below include "Toronto", "graffiti", "alley", and "global climate change" among others relating to the camera and settings. The photo on the right has tags including "beaches", "Toronto", and "global climate change" (Flickr).

Figure 7.3 Tagged photos with comments from Flickr.com
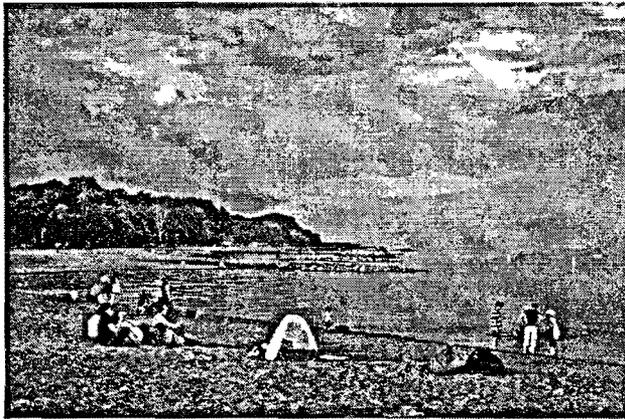
Global Climate Change "Those Lazy Hazy Crazy Days Of Summer"

Comments and faves

Michelle Brea (busy-away) pro
Hi, I'm an admin for a group called "Heart Awards", and we'd love to have your photo added to the group.
An Awesome Shot Award
You are invited to add this image to An Awesome Shot!
~CONTESTS~ Enter/Vote now
Please tag the photo with "AnAwesomeShot"

Seen in my contacts' photos. (?)

AtillaSoylu pro
cool image. and nice message with it...

Global Warming Has Finally Come To Toronto

After the warmest November in living memory winter has reached Toronto early. I have said it before but it bears repeating: Global warming is a misnomer, for the Canadian climate it almost sounds good like something to welcome. A better term is global climate change. We will see shifts sometimes extreme shifts in weather patterns not just warmer weather. Some places will actually get colder.

Comments and faves

Brendan Lynch and RyanMacLean added this photo to their favorites

nxlutz pro
Brrrrr. Looks cold already.

desertdragon pro
brilliant shot. and agreed - "climate change" is a better term I think...

Fifth_Business added this photo to their favorites

moggierocket - sending courage to Japan pro
Love this shot..We also had an extremely warm November and so far December seems more like October. I don't like it.
Seeing our companions with new eyes.
Please post your photo into the queue for consideration at:
the little dog laughed

moggierocket - sending courage to Japan pro
Hi, I'm an admin for a group called Masterpieces of Photography, and we'd love to have this added to the group!

Because of the multiple tags, the photos are found via a number of different search terms and other users have added them to a variety of groups or topics. A user may visit such groups or perform a search for "graffiti" or "beaches" and find either of these photos that are accompanied by a title or description and often a discussion about climate change in Toronto.

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Another example is the increasing integration of user-produced content and traditional media source content, such as on newspaper companies' websites. By using Web 2.0 platforms rather than a static websites, content is processed dynamically and there are number of tools to create conversation. Technorati is an example of a service that 'reads' blog content and analyses the links to track trends and connections. Other media providers often employ these services to enhance content. Technorati has partnered with Associated Press to display blog posts related to the news stories on its affiliated sites (Technorati.com, 2006). By including a reference or link to the story, it may appear next to it on the affiliate's website. San Diego's climate change communication challenges could use this type of integration to link the City's concerns with other discussions in the media about concerns of the residents. Knowing the terms of discussion for underrepresented groups can help link and include them into the dominant sphere of a topic by reaching them in their 'third places'. The key to successful outreach of this type is in the recognition that shared problems do not always have shared terms of reference but Web 2.0 tools allow for multiple terms and contexts.

The reach of Web 2.0 tools is apparent when comparing the 'granularity' (Chadwick 2008) of some of the online initiatives mentioned in the introduction. The Government of Ontario's "Community Planning and Development 3D Visualization Portal" is a Flash-based animation that illustrates potential development scenarios using provisions in the Provincial Planning Act. Despite being interactive in the sense that the user can select various scenarios, the site is static with no opportunity for either user-specific information or, more importantly, for its inclusion in a wider discourse. The information is 'locked' on the ministry's site and can only be accessed by visiting the page. The only possibility for expanding the audience beyond those who deliberately seek out the information is the inclusion of full links on other sites that allow for it. However, even when externally linked to, the 'portal' remains a singular entity with little granularity. This is in great contrast to the Web 2.0 tools that could be employed to 'disperse' the content across the Web. By using Blogger, Twitter, Youtube, Facebook, and mobile phone applications, the City of Calgary has spread the reach of

its communication across a variety of contexts. For example, the City launched an interactive map of land use applications and, via Twitter, the link appeared on any website, blog, or application that had subscribed to receive information about the city through a variety of tags.

Granularity does not mean dilution. Web 2.0 platforms are the means to organizing dispersed information in ways that are meaningful for individual users. Therefore, the creation of applications that aggregate dispersed data is another effective Web 2.0 strategy. The City of Calgary has also created an example of such a platform with the introduction of their mobile phone applications. The 'Our City, Our Budget, Our Future' application for the iPhone combines all the various media pieces related to the budget discussion into a single application. While of course not everyone has an iPhone, the strength of this application is that it does not just gather information from iPhone users. Instead, all the videos and survey responses, including those submitted offline, are included, effectively bridging the communication gat between users of different platforms.

Figure 7.4 City of Calgary iPhone Application Screenshots
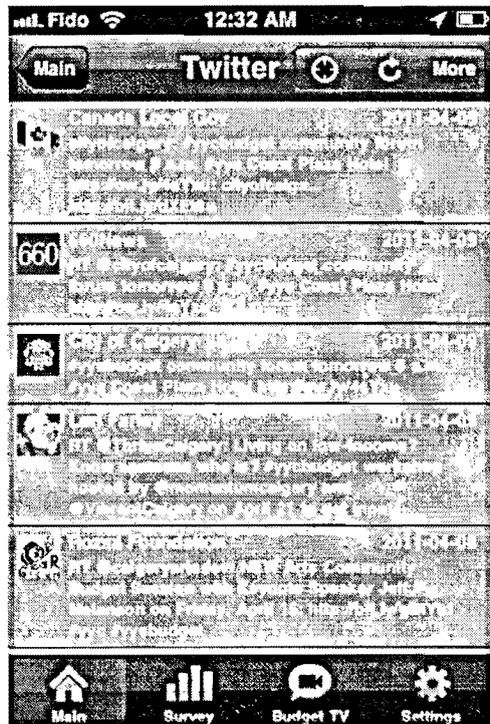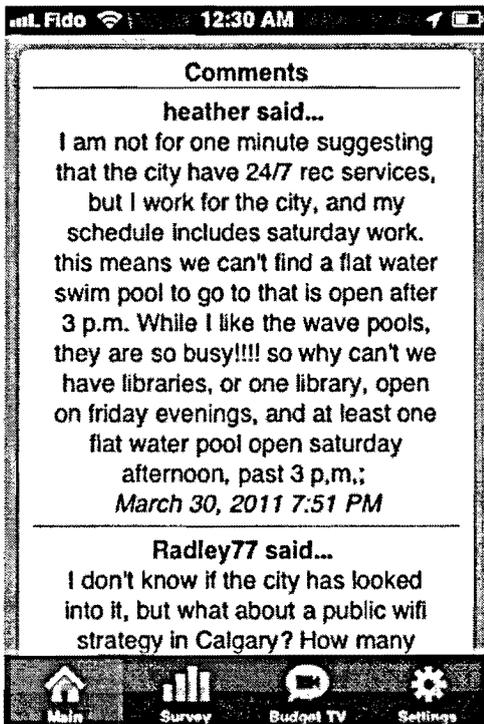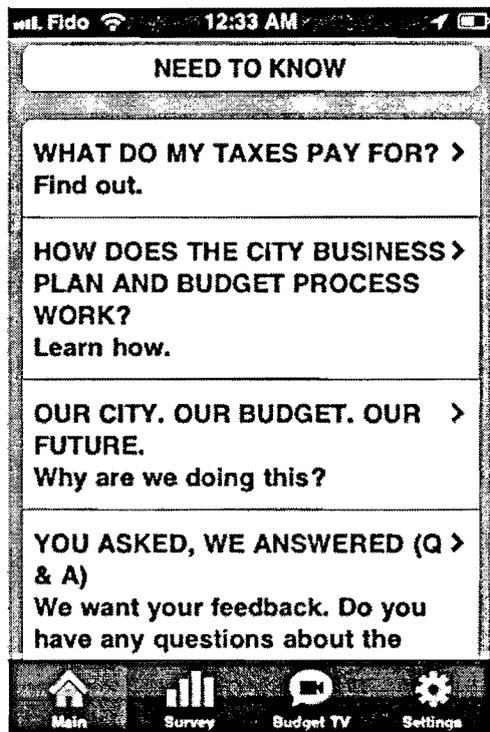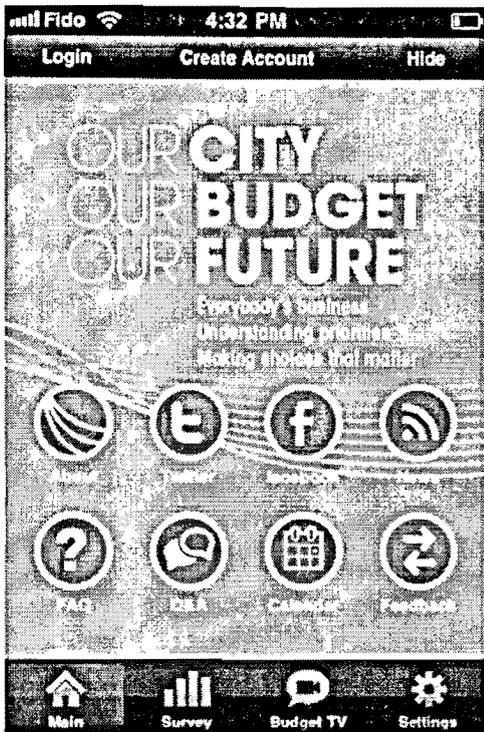
8.0 Conclusions & Recommendations

The lack of participation by some members of society is not merely an issue of access to technology or technical literacy. Many of the historically marginalizing elements of our cities continue to hinder representation, digital or otherwise. Therefore, a planner's concern for engagement with underrepresented communities cannot assume a technical fix, be it access to computers, training, or translation of content into multiple languages, will simply enable the empowering promise of the Internet participation. The struggle for a 'just city' remains rooted in identity, difference, and social justice in the face of power and hegemony. However, in the 'network society' we see a new parallel operation of power and place making that present new challenges and opportunities.

8.1 Conclusions

The Internet is not only a medium; it represents a structural change in the processes shaping our cities. While we witness the 'creative' economy rejuvenate some neighbourhoods and cultural institutions, we must be mindful of the duality of network logic to include and exclude. Planners should include the 'spaces of flows' in their vision of the city not as an abstraction, but as reality. The malleability of the Web's social structure and the potential of that structure to transform power indicate that If that vision is to be inclusive of diversity, planners must then concern themselves with incorporating all voices into the network of the city. The collaborative model of planning offers a way forward for indirect inclusion of citizens not directly active in online initiatives.

Online and offline initiatives should not be considered separate initiatives or independent spheres. Instead, efforts need to be made to create integrated deliberation using a collaborative planning model that is dependent not on direct exchanges but on the flow of information and discussion through the system as a whole. Additionally, the

participation process in this environment should not be considered merely a means to an end for a specific program. Rather, the collaborative engagement process is an ongoing and essential part of the city as a project itself.

The development of a 'Web 2.0' Internet platform has profoundly changed the way information is produced and organized online. Users can now produce content in a variety of formats and are in many ways collectively and personally organizing this increasing amount of information. While in many cases, the way we interact and organize online is reflective of dominant ways of doing so in the past, the Web is now flexible enough for us to break free of traditional formats and ontology. In fact, it is a medium that can accommodate multiple ways of knowing and even allow them to coexist symbiotically in a variety of recombinations.

The technical ability to accommodate of variety of communication forms and user-organization online should be embraced as an opportunity for communities to express their local knowledge in an appropriate form and to be reached by planners on their own terms. Technical literacy should be replaced by multicultural literacy as the primary characteristic of Internet initiatives. The intended users of any application should determine what information is solicited and how it is described or formatted. It is the responsibility of the planner to access the community's way of knowing, not the responsibility of the community to input 'data' into a predetermined participation model. When considering Internet tools for communities that are underrepresented in either traditional or popular social networking spheres, do not assume development of a engagement tool needs to start from nothing, or create something new. Communities have rich experiential local knowledge that is expressed through a variety of forms, some of which may not conform to traditional notions participation (Sandercock, 2003). Often there already exists a network of communication of multimedia formats within these communities (Howley, 2010). The challenge is to link these knowledges and networks to the planning process and other community discourses. Doing so requires not changing what the community does, but bringing what they and others do together.

8.2 Recommendations for Practice and Further Research

Taken together, the above conclusions establish a role for the planner as a facilitator of Web 2.0-style connections across the networks of the city, between diverse forms of knowledge. Web 2.0-style connections are based on a social, dynamic, and evolving multiplicity of meanings instead of authoritative, hierarchical ontologies. The separation of content from form on the Web 2.0 platform, thus the ability for multiple formats of content, is an appropriate analogy for planning with a multicultural literacy respecting communication among diverse local knowledges. Rather than a focus on specific technologies or techniques, this should be understood as a paradigm, or a 'lens' to view communication strategies across cultures. This paradigm is based, as Castells (2009) notes, on the value of the communication and innovation itself, not a goal of homogenous shared values.

The current practice on the web of integrating video, images, sound, and text expands the ability for multiple forms of expression. Web 2.0 features such as free tagging, aggregation, and combination, expand the ability to create dialogue from these expressions. Formal attempts to do so in the municipal planning process are only now emerging, as are new techniques and experiences on the web. Therefore, this paper has been an attempt to illustrate the broad range of issues involved at the intersection of the Internet, civic participation, and multicultural cities. As such, rather than prescriptive recommendations there are several questions that can be offered to practitioners and professionals considering Internet tools for diverse participants. Most importantly, these questions also form the basis for future research on engaging diversity online.

What forms of expression exist in the community already and how can these be accessed? Visual or performing art and storytelling are often powerful forms of communication that can be conveyed through digital media, as are more informal expressions such as portrayals of daily life or discussions of community issues. 'The

Fogo Process', a participatory video project of the National Film Board on Fogo Island, Newfoundland, proved this in 1967 and to some degree the City of Calgary Budget TV Youtube project is attempting again in a digital environment. Ultimately this is a question that needs to answered by the community but it needs to be asked.

How can the seemingly discordant expressions from diverse communities be brought together in a collaborative process around municipal issues? The terms of reference for shared concerns are not always the same between different groups but the Web 2.0 paradigm allows for multiple meanings, as seen in the 'folksonomy' practice of tagging, and shows potential for new non-linear narratives that include difference. Additionally, the collaborative model of planning shows that a single discourse is not always necessary or desirable by allowing for deliberation without direct communication between actors, instead relying on the networking of various overlapping interest-based groups.

As more municipal issues are formally or informally engaged with in a wider variety of the ways of participating online beyond the past e-democracy practices such as dissemination of information or online polling, it will become a more observable social process by better reflecting those involved and provide substance for future research and practice. Finally, experimentation is a hallmark of the Internet that needs to be embraced because "the adoption of innovative participatory practices by some actors may give rise to evaluation and assessment, develop into further practices, and become the seeds of socially constructed new understandings of interaction among actors (Cammaerts, 2008, p.xix)."

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