

THE UNIVERSITY OF CALGARY

WIKIPLANNING

Exploring the use of a Collaborative Authoring Tool in Communicative Planning Processes

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A Master's Degree Project submitted to the Faculty of Environmental Design in partial fulfillment
of the requirements for the Degree of Master of Environmental Design (Planning)

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ABSTRACT

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Exploring the use of a Collaborative Authoring Tool in Communicative Planning Processes.

By Arif Sayani, under the supervision of Dr. Tom Keenan.

Prepared in partial fulfillment of the requirements for the Degree of Master of Environmental Design (Planning) in the Faculty of Environmental Design, University of Calgary.

This work explores the use of a collaborative authoring tool, the wiki, in two communicative planning processes. It discusses the methods of Communicative Action and Dialogical Planning approaches in order to determine how new practices can be legitimized within their normative frameworks. It discusses the increasing use of wikis and how the web 2.0 is re-shaping the ways in which individuals and communities interact. This work argues that the use of the wiki in planning has the potential of increasing public participation, of adding knowledge and aiding understanding, and of changing the relationship between planners and their clients.

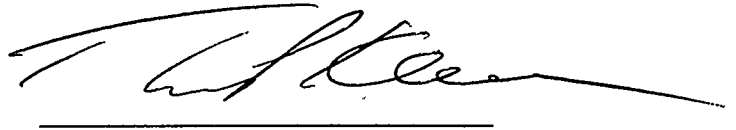
KEYWORDS

collaborative authoring, public participation, information technology, communicative action, dialogical planning

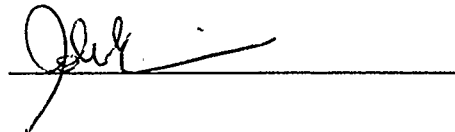
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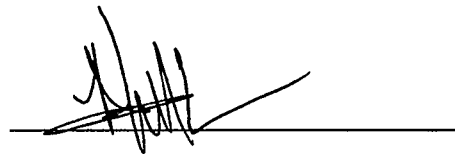
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LIST OF ACRONYMS

GIS	Geographic Information System
IP	Internet protocol
MDP	Masters Degree Project
RCPM	Rational Comprehensive Planning Model
WYSIWYG	What you see is what you get
WRE	Wide Reflective Equilibrium

Chapter 1 Introduction

1.1 Abstract

This work explores the use of a collaborative authoring tool, the wiki, in two communicative planning processes. It discusses the methods of Communicative Action and Dialogical Planning approaches in order to determine how new practices can be legitimized within their normative frameworks. It discusses the increasing use of wikis and how the web 2.0 is re-shaping the ways in which individuals and communities interact. This work will argue that the use of the wiki in planning has the potential of increasing public participation, of adding knowledge and aiding understanding, and of changing the relationship between planners and their clients.

1.2 Purpose

“All is flux, nothing stays still,” wrote Heraclitus, centuries ago, an all encompassing statement, as true then as it is now. Planning has of course not escaped the inevitability of change. From its disciplinary start in the throes of the Industrial Revolution, planning has undergone changes in both theory and practice with the results surrounding us natural and built environments. These changes in planning are brought about through developments in both theory and practice. Recently, a debate has begun to shift planning from a more technically oriented approach to a more balanced approach that incorporates communicative and critical insights. While there are several theoretical frameworks proposed, the practice has been slow to adopt them.

There are no set ways to move forward, the risks seem too high and the consequences too uncertain, especially in a profession tasked with the betterment of our future. No one can be sure what planning will be, only that it will change.

This shift to new approaches has been inspired by developments in other fields such as social and communication theories. As much as planning has the ability to change our world, like everything else, it too is deeply affected by societal forces. One such force is the Internet, whose rise in the last two decades has led to fundamental shifts in how communities and individuals are connected, leading some to call it the Information Revolution. And just like the Industrial Revolution, the Information Revolution has the power to potentially change planning.

This potential has not been ignored. The American Planning Association has described how information technologies can “fundamentally change the way planners communicate ideas to the public.” (American Planning Association 2006, 63) Nor has this potential escaped planning theorists. Innes and Booher (1999, 412) state how their collaborative planning approach “can be understood as part of the societal response to changing conditions in increasingly networked societies, where power and information are widely distributed.”

Information technologies have already influenced planning to an extent. They have advanced the collection of data and its interpretation into useable information, have allowed planners to access resources that would otherwise not be so readily available, and have allowed citizens to connect with each other inside and outside of their communities. These are well documented changes, for example seen in the increasing use of Geographic Information Systems (GIS), the availability of online

journals for planners to access, and the development of wired communities where residents can communicate with each other from the comfort of their homes. (See Hampton, 2001)

However, if planning is undergoing a change, the question to be asked is how information technologies can be used in any new approaches. If the Dialogical Planning approach of Harper and Stein or the Communicative Action approach of Innes are to set the new paradigm for planning, are there information technologies that comply with their normative requirements? Would any of these technologies benefit the planning process?

This Master's Degree Project (MDP) is interested in one such information technology, the wiki, a collaborative authoring tool that gives the power of editing, adding, or deleting text to its users. Its increasing use is part of a larger movement commonly called the Web 2.0, a change in the structure of the Internet from the static display of information to users, towards the co-creation of content by these very users. The implications of the Web 2.0 are still new but several of them have been described. Tapscott and Williams have coined the term *Wikinomics* to describe a new culture that has emerged from this shift in technology. They describe how members of academia, businesses, and governments, are now using Web 2.0 technologies to help them achieve their goals. The wiki is, of course, a key Web 2.0 technology. Its most famous application is Wikipedia, an online encyclopedia whose content is entirely created by volunteers and whose pages can be edited by anyone. All this leads to a simple question that guides this MDP, can wikis be used in communicative planning processes, and if so, in what way?

1.3 Relevance

Exploring the use of a technology like the wiki and its inclusion in the planning process requires some justification, especially when this exploration is at a theoretical level. Theorists note that one of the many roles of a planner is “to invent new institutions, arenas, and processes, within which conflicts are identified and mediated, and mutually agreeable actions and programs are formulated and implemented.”

(Healey 1993)¹ This is the concept that guides this work, the notion that a powerful new technology should be considered for use in planning if it can help us reach our goals. However, its use should be carefully considered and legitimized through the normative frameworks of planning approaches. As Harper and Stein (2006, 260) have stated, “to make a new vocabulary intelligible, it must be grafted to our existing vocabulary, otherwise, the two vocabularies will be incommensurable.” Furthermore, they add (2006, 260) that “if the practitioner is not aware of or able to utilize the language and skills involved in the legitimation of these vocabularies, language games, or rediscussions, he or she is doomed to obsolescence.”

1.4 Methodology

This MDP is primarily a literature review. While it generally seeks to explore the use of wikis in planning, it will address three specific research questions.

- How can collaborative authoring tools be used in the planning process?
- Should collaborative authoring tools be used in the planning process?
- What is the effect on the role of the planner and client when these tools are used?

¹ From Harper and Stein, 2006, 140.

It will at first use planning theory to establish a framework by which new technologies can be legitimized, specifically those theories that advocate communicative approaches such as Communicative Action and Dialogical Planning. It will then explore the use of wikis in today's Web 2.0 society with an emphasis on the user experience, including implementation and effectiveness. It will then combine these two areas of research into theorizing on the use of wikis in planning. The role of the planner and client in implementing the wiki will also be explored.

Research work will be acquired through a search in the following and similar databases:

- University of Calgary On-Line Library Catalogue
- Google Scholar
- Journal of Planning Literature

Keywords will include: *urban planning, communicative planning, communicative action, collaborative planning, dialogical planning, collaborative authoring, public participation, information technology, wiki, wikinomics, web 2.0*

1.5 Research Limitations

Being a literature review, this MDP is most limited by the quality of literature that can be found and accessed. Pre-conceived notions of what planning approaches to use for legitimation limit, in some sense, the extent of the search for literature on planning theory, although this is expected for a minor MDP. The literature for wikis is limited by the relative newness of this technology. As an online tool, use of the wiki is supplemented with some articles and opinion pieces. Caution will be taken when considering their use in order to ensure the quality and eligibility of sources.

Any recommendations in the conclusion will be of a general nature as this MDP is an exercise in the legitimization of a new technology and not a case-specific application.

1.6 Intended Audience

This MDP is primarily intended for planning professionals in both the public and private sector who are interested in using new approaches to authoring and public participation. It will also be of use to academic and students who are interested in processes of legitimization in planning theory.

1.7 Chapter Breakdown

Chapter 1: Introduction

This chapter introduces the two primary areas of research to be covered in the MDP. It provides some background information and establishes three research questions. It explains the motivation and relevance of this research topic and describes a brief methodology.

Chapter 2: The Theoretical Bases of Communicative Action and Dialogical Planning Approaches

This chapter explores the normative theoretical frameworks of two communicative planning approaches. Its purpose is to establish normative requirements in order to legitimize new practices. It will establish the theoretical foundation through which the wiki will be explored.

Chapter 3: The Wiki and the Web 2.0

This chapter introduces the wiki technology and discusses its use in a Web 2.0 society. It describes the benefits and challenges faced in implementing its use. It also discusses the advantages and disadvantages of collaborative authoring in general. This chapter will discuss new methods of creating value which fall under the term *Wikinomics* as they have the potential of changing citizen expectations of planning. Finally, this chapter will introduce recent cases where wikis have been used by governments.

Chapter 4: WikiPlanning

This chapter theorizes on the use of the wiki in planning approaches. It will show how the wiki can or can not comply with the requirements set forth by these approaches. It will describe the role of the planner in its implementation as well as the role of the client.

Chapter 5: Conclusion

Based on the previous chapter's findings, this chapter will conclude on whether the wiki can be an effective planning tool. It will describe the contexts in which this can happen. It will make general recommendations on using wikis in public planning and will argue for a changed role between planner and citizen.

Chapter 2 The Theoretical Bases of Communicative Action and Dialogical Planning Approaches

This chapter discusses the normative theoretical frameworks of two communicative planning approaches. Its purpose is to establish normative requirements in order to legitimize new practices. It will establish the theoretical foundation through which the wiki will be explored. Because public participation is a major element of these planning approaches, this chapter will also introduce issues of power and trust in participation processes.

2.1 A Shifting Ideology

Like so many professions, planning has the tendency to be ruled by ideology. However, the ideological foundations of planning have been questioned in recent decades. Harper and Stein write (2006, 9) that “planning has often been described as being in a precarious and unstable position with regard to its claims to legitimacy and professional expertise...” Many authors argue that the profession is in a state of crisis as the dominant ideology of the 20th century has been heavily criticized. Sandercock writes (2004, 136) that “the essence of 20th century planning was regulatory, rule bound, procedure driven, obsessed with order and certainty: in a word, inflexible.” Harper and Stein add (2006, 5) that planning as a profession claimed not so much a systematic body of substantive knowledge but primarily a common “scientific” (instrumentally) rational methodology...” This scientific methodology found its way into planning as the Rational Comprehensive Planning Model (RCPM). With its emphasis on objectivity, technical rationality, and claims of expertise, the RCPM was seen as a legitimate

planning approach during the 20th century's modernist era. However, numerous critiques over the past decades have shown how the RCPM ignores subjective qualities and other conceptions of rationality. (Harper and Stein, 2006)

While modernism was the dominant societal ideology of the 20th century, it was subsequently challenged by post-modernism, an ideology very different from modernism. Post-modernism supposes that "there is no direct experience of reality. Each of us sees the world through the filter of our own paradigm, conceptual frameworks, vocabularies, and language..." (Harper and Stein, 2006, 43) Harper and Stein (2006) argue that Planning's attempt to adapt to the shift from modernism to postmodernism is what is causing the current crisis in the profession. The objective, value-free, and technical methods of the RCPM need to be replaced yet in a postmodernist society where pluralist, value-laden, and fragmented contexts are abundant, no new dominant approach has taken hold promising the same "effectiveness" as the RCPM.

However, theorists have in the last decade begun to reach consensus on a new planning paradigm. Innes (1995) has observed a consensus forming "around a new communicative action 'paradigm' for public planning, recognizing planning's political nature."²

2.2 Communicative Action

Communicative Action is an emerging approach that finds its theoretical base in the philosophical works of Jürgen Habermas. Habermas has argued that concepts of rationality, that is, reasons for action, need to be expanded to include the

² From Harper and Stein, 2006, 16.

communicative and critical, in addition to the instrumental (technical) which has been the dominant form of rationality, as seen in the RCPM. Instrumental rationality is characterized by the use of the best means to pre-determined ends, with control as the ultimate goal. In contrast, communicative rationality seeks understanding as a goal while critical rationality sees emancipation as its purpose. (Harper and Stein, 2006)

Habermas's concept of communicative rationality has been introduced into planning by numerous theorists. Harper and Stein (2006, 16-17) point out how this communicative paradigm has found its way into variously labeled planning approaches such as Healey's "collaborative planning," and Forester's "progressive planning."

Innes has taken these communicative approaches and labeled them as a new paradigm called Communicative Action, incorporating Habermas's work but emphasizing that studies of practice in the profession must be incorporated in the new paradigm. Instead of planning based on technical calculation, Communicative Action sees it as a process of debate or dialogue where the goal is to achieve mutual understanding between individuals. Healey (1993) identifies it as "an interactive and interpretive process—one involving individuals in diverse, fluid, discourse communities; each community with its own meaning systems, knowledge, forms, and values."³

The Communicative Action paradigm incorporates Habermas's concepts of communicative and critical rationality. By engaging in discourse, individuals and communities of different value systems can reach a level of mutual understanding where each side has an appreciation of the other side's position. Furthermore, communicative rationality allows communities and planners to understand how actions will affect them. For example, if a community is debating a certain policy, a planner can

³ From Harper and Stein, 2006, 139.

help explain the outcomes of certain actions to the community so they have a better understanding of the situation. Ultimately, communicative rationality is about discourse that leads to an understanding of other individuals, communities, and institutions.

The third piece of the rationality “puzzle” is critical rationality. It involves reaching a critical understanding of how we are affected by actions in order to strive for emancipation, a freeing from oppression. This involves an awareness of the normative and descriptive realities of any situation. For example, a community engaged in a process of debate can reach communicative rationality, an understanding of how actions affect it, and then reach a further critical rationality by understanding what these actions really should be.

Innes describes several principles that can be used to evaluate the communicative rationality in processes of deliberation. First she states that “individuals representing all the important interests in the issue must be at the table” (Innes, 1998, 60) All stakeholders must also be equally informed and empowered during discussions, power inequalities must be left aside. Habermas’s ideal speech situation should be invoked to test the quality of discussions. The ideal speech situation is a regulative ideal based on four conditions where all participants in a dialogue are free from ideological distortion. The four conditions are:

1. Each actor has to have an equal chance to initiate and continue communication.
2. Each has to have an equal chance to propose, explain, and challenge justifications.
3. Each has to have an equal chance to express their wishes and feelings.
4. Each must act as if they have an equal chance to order and resist orders, to promise and to refuse, to be accountable for one’s conduct and to demand accountability from others. (From Garrigan, 2004)

The ideal speech situation has been criticized as being naïve and unattainable however its proponents argue that while it indeed is unattainable in practice, it serves as a useful heuristic or guide for dialogue. (Harper and Stein, 2006) Trying to invoke the ideal speech situation in practice simply comes down to trying to identify and eliminate distortions through “dialogue and critical reflection.” (Harper and Stein, 2006, 114)

Innes further elaborates on the ideal speech situation. Stakeholders should be able to say what they want but should have the experience necessary to back up their words. At the same time, their speech must be jargon-free and simple enough to be comprehended by everyone. Consensus should be the main goal of discourse. Innes realizes that it is difficult to implement all these principles, if ever at all. However, she states that trying to approximate them “should help ensure that decisions take into account important knowledge and perspectives...” (Innes, 1998, 60)

2.3 Dialogical Planning

Building on the work of communicative planning theorists, Harper and Stein advocate for an approach they call Dialogical Planning. Harper and Stein’s Dialogical Planning approach is neither modernist nor postmodernist. Rather they espouse ideals from either side that they find suitable, in keeping with a pragmatic approach. They combine the best elements of planning theory resulting in an approach that is liberal, pragmatic, communicative, critical, incremental, and political. (Harper and Stein, 2006) Each element will be discussed in this section.

Their inclusion of political liberal theory is to establish “criteria by which planning systems, policies, plans, and decisions should be judged.” Liberalism holds that the

fundamental unit of value and of political and moral concern is the autonomous individual. The Dialogical Planning approach establishes that the individual is central in planning, but only in the context of a wider community. Furthermore, Rawls' political liberalism is included as a measure of justice and fairness which Harper and Stein argue are crucial for linking individual autonomy and "procedural justice in a pluralistic society." (Harper and Stein, 2006, 143)

While Harper and Stein lean on Rawls's political liberalism for their view on justice and fairness, they draw on neopragmatism as their gauge for knowledge and justification. Their use of neopragmatism shows their unique approach in combining modernist and postmodernist theories. Neopragmatism is a postmodernist theory that rejects "the metaphysical presuppositions of positivism and modernism." (Harper and Stein, 2006, 143) Neopragmatists view rationality in a similar manner to Habermas in that they take into account instrumental, communicative, and critical rationality among others. The essence of neopragmatism in dialogical planning is that good reasons have to be given for actions, and furthermore, these reasons have to be related to context. (Harper and Stein, 2006) Applying higher level theories or knowledge would otherwise be modernist.

Given their approach to Dialogical Planning, there should be no surprise that Harper and Stein draw on Communicative Action. As described above, Communicative Action involves "interactive, interpretive, mutual learning, shareholder-based, consensus-building dialogic processes." (Harper and Stein, 2006, 144) Harper and Stein also draw the link between Communicative Action and neopragmatism, stressing that effective communicative planning involves giving good reasons for actions and not

merely having any actions accepted through coercion, deception, and other manipulative means.

Their approach is similar to Habermas through their inclusion of reflective critical interpretation. (Walzer, 1987) By being aware of normative and descriptive realities, planners can try to avoid ideological distortion. Harper and Stein place this in practice by stating how planners need to be aware of these realities in political and organizational contexts. In their approach, planners have an educative role to play in helping stakeholders to critically identify these distortions.

Since planning is concerned with change, Harper and Stein argue that it should be incremental. They state that “the only possible justification for planning in a postmodern democratic society is an incremental one.” Incremental changes are brought about through consensus-seeking debate, furthermore, they should not be large or radical changes, nor utopian in nature. In keeping with a neopragmatic tradition, their incremental “plans are for our world, for ordinary creatures like us.” (Harper and Stein, 2006, 145)

The final component of their dialogical approach is the recognition that planning is political in nature. In their approach, “the planner seeks to democratize the planning process, to open it up to everyone, to make information freely available, to encourage all voices to speak, to raise questions about costs and benefits and their distribution.” (Harper and Stein, 2006, 146) Furthermore, by engaging critical capacities, their dialogical planner “advocates for justice and fairness and educates about political dominance and control by elite groups.” (Harper and Stein, 2006, 146)

2.3.1 The Dialogical Planner

The role of the planner in Dialogical Planning can vary. Harper and Stein state (2006, 146) that “a contemporary planner can legitimately play a number of roles: reflective critical interpreter, communicator, public educator, mediator, advocate (of justice and fairness), agent of [incremental] change, consensus builder...” and so on. Their dialogical planner takes all the elements that they build into their approach and plays different roles at different times. In this way, their dialogical planner is technically competent when needed, politically aware, and an effective communicator. (Harper and Stein, 2006) However, Harper and Stein (2006, 146) note that “one planner should not try to combine too many roles at one time or in the same context” in order to not compromise the process.

A key process that the dialogical planner employs is the concept of wide reflective equilibrium (WRE). Drawing on Rawls’s procedural theory, as they already did with issues of justice and fairness, Harper and Stein use the notion of the WRE as a means of achieving consensus. They justify their use of the WRE based on their pragmatic approach, stating (2006, 102) that “we want to start from where we are; take into account the beliefs, institutions, and principles that we now hold; and move toward an overlapping consensus.”

Harper and Stein point out that there are two kinds of reflective equilibrium, narrow and wide. Narrow and wide equilibria can be equated to the perspectives they engage. An internal perspective is a situation where the concepts of participants directly involved in the culture or activity are considered to reach what would be a narrow reflective equilibrium. An external perspective on the other hand invokes concepts and

theories outside of the culture or activity and leads to a wide reflective equilibrium. This external perspective is valuable because it “allows one to stand apart from society’s institutions in order to critically evaluate them.” (Harper and Stein, 2006, 103) The use of processes to achieve WRE answers their approach’s need for reflexive critical interpretation and of Habermas’s critical rationality.

In a planning process, the planner would try to achieve a WRE through a debate where they would first seek agreement on concepts, an “overlapping consensus.” (Harper and Stein, 2006, 147) An initial consensus can vary, it can be on “shared moral principles, general or specific liberal democratic values, empirical facts, specific judgements, or concrete actions.” (Harper and Stein, 2006, 148) From there, the debate would move on to other concepts, hopefully invoking external perspectives. One of the goals is that through this process, different groups will “affect the other in reasonable ways, each widening its own perspective and perhaps even changing some of its beliefs.” (Harper and Stein, 2006, 177) In this sense, the WRE process invokes Habermas’s concept of communicative rationality, that is, of mutual understanding between different groups. However, they also warn that an apparent consensus reached can be misleading. They state (2006, 209) that “a legitimate consensus must be meaningful, reasonable, and fair in its context” otherwise it risks being “a forced consensus that is thin and superficial and is likely to fall apart in concrete application.”

Harper and Stein state (2006, 148) that this “procedure could be adapted at all levels of planning debate, from a planner interacting with individual citizens to a provincial government devising a new planning act.” This is where the wiki enters the

picture. If it is to be used in a planning approach, it has to be able to comply with the elements of Communicative Action and Dialogical Planning described above.

2.4 Citizen Participation: Power and Trust

Citizen participation has usually been a part of planning processes although the type of participation has varied dramatically. Numerous critiques have shown how citizen participation in some cases is really a cover for some stakeholders to mask their true intentions and their power by misleading and misinforming participants. (Arnstein, 1969) This has of course led to the development of new planning approaches like those described above.

Arnstein's ladder of citizen participation is one of the earliest and most famous works on the nature of citizen participation because it equates citizen participation to citizen power and establishes the various levels (rungs) at which this happens. Image 1 shows Arnstein's eight levels of citizen participation. The ladder is important to this MDP because one aspect of the wiki's nature is its distribution of authoring responsibility which can be seen in terms of power. According to Arnstein, meaningful participation happens in the higher three levels where citizens are given the highest levels of "decision-making clout". (Arnstein, 1969) Where the wiki fits in with the ladder will be discussed in a subsequent chapter.

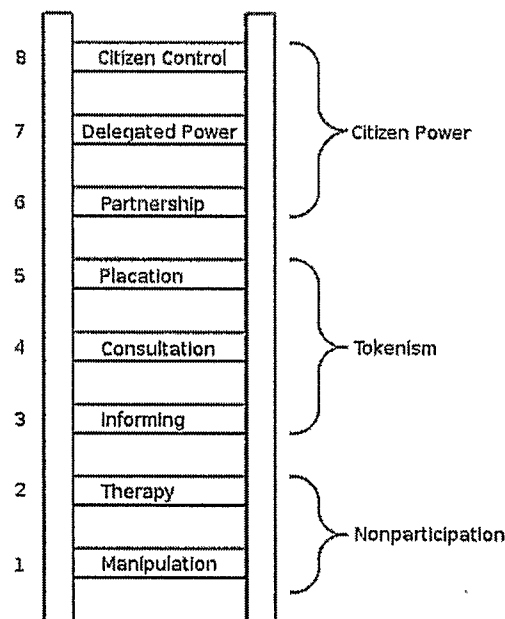


Figure 2.1 Arnstein's Ladder of Citizen Participation
(Arnstein, 1969)

The question of citizen participation and power should naturally bring up a discussion of Michel Foucault, whose work on power relationships and knowledge has permeated into various disciplines, planning included. The essence of Foucault's work is that power is the "most significant operating notion that governs discourse and hence social reality..." (Harper and Stein, 2006, 265) Foucault's use of power to gauge all relations has been influential in showing how power can be used as a tool of control and oppression, although Foucault also admits to the productive capacity of power. (Harper and Stein, 2006)

As a social construct, planning can of course be viewed in terms of power, but that it should be completely viewed through the vocabulary of power is where Harper and Stein find issue. They state (2006, 275) that "if participants in planning processes see everything in terms of power, this could breed suspicion and mistrust..." In applying

planning theory to the use of wikis, an awareness of power relations and their effect on authoring is important, but should not be the only critique.

While they place less emphasis on the vocabulary of power, Harper and Stein do advocate another vocabulary, that of trust. Whereas Foucault sees power as the basis of social relations, Wittgenstein sees trust as the basis of social life. Trust is often defined as a condition that is “fundamental to our ability to function in a complex world where we depend on other people to behave in accordance with our expectations.” (Ryan, 2004, 3) Trust is thought to rest on the conditions of risk and interdependence. Ryan states (2003, 3) that “risk occurs when a person enters into a relationship or situation where perfect information is unavailable, where the future outcome is unpredictable, and where there is a possibility of loss or harm” At the same time, “trust grows out of the interdependent nature of activity, where one party relies on another, or perhaps many others, to achieve desired results.” (Ryan, 2003, 3)

Therefore, trust becomes a necessary condition for communication. As Harper and Stein write (2006, 278), “if there were literally no trust, then nothing the other party said could be accepted; everything would have to be verified.” Furthermore, “the need for trust makes it important to begin decisions processes by finding, and focusing on areas of agreement.” (Harper and Stein, 2006, 222) This should come as no surprise as this concept directly relates to the use of the WRE in Dialogical Planning.

As a forum for online communication, the internet naturally has to deal with the challenge of trust. Helen Nissenbaum has written extensively on the issue of online trust and argues that there are two types of trust at work in the online world, instrumental and non-instrumental. Instrumental trust is bound to the concept of security and relies on the

reduction of risk and uncertainty. This is seen in the development of protocols and systems that are designed to produce safe and reliable environments in which people can then operate in. Nissenbaum (2002) argues that this is a use of trust as a means to an end, which would be assurance. Non-instrumental trust on the other hand is not tied to security or assurance but is itself the very point of all relationships and communication. (Nissenbaum, 2002) Essentially, she argues that it is far better to nourish trust than to try to secure it. (Nissenbaum, 2004) Tolerating risk and uncertainty while nourishing trust comes down to what one values. For Nissenbaum the choice is clear, trust is far more beneficial to the complex web of relationships than assurance and security:

“Trust is a key to the promise the online world holds for great and diverse benefits to humanity—its potential to enhance community, enliven politics, hasten scientific discovery, energize commerce, and more. Trust in the layered infrastructures of hardware, software, commercial and institutional presences, and its people is a necessary condition for benefits to be realized.” (2001, 101-102)

2.5 Chapter Conclusion

This chapter has described the main tenets of Communicative Action and Dialogical Planning processes. It has established the theoretical framework in which the wiki will be explored. It has shown that Communicative Action is focused on incorporating Habermas’s communicative and critical rationality into debate and decision-making processes. Consensus is the primary goal and should be achieved in an ideal-speech environment. Dialogical Planning builds on Communicative Action planning by adding other elements such as neopragmatism and incrementalism.

Furthermore, the process of building consensus is strengthened by the use of the WRE approach.

This chapter has also shown that citizen participation introduces issues of power and trust. Power has been equated to levels of citizen involvement in decision-making according to Arnstein's ladder. The temptation to go further than this and extensively use the vocabulary of power according to Foucault has been avoided by the recognition that the vocabulary of trust is a more important concept in social activities such as planning.

Exploring the use of the wiki in these processes will involve discussing whether it can help or detract from the goals of these processes. But before that can happen, the next chapter will introduce the wiki and discuss its use in today's society.

Chapter 3 The Wiki and the Web 2.0

This chapter introduces the wiki tool and discusses its use in a Web 2.0 society. It describes the benefits and challenges faced in implementing its use. It also discusses the advantages and disadvantages of collaborative authoring in general. This chapter will discuss new methods of creating value which fall under the term *Wikinomics* as they have the potential of changing citizen expectations of planning. Finally, this chapter discusses recent cases where wikis have been used by governments.

3.1 Collaborative Authoring

While the wiki is a relatively new tool for collaboration, collaborative authoring has of course been used for some time. As a writing method, it has been studied but as Dillon (1993) notes, the models developed to explain the issues behind collaborative authoring are more complex than those that focus on individual writing. Issues regarding the responsibility of production, intellectual ownership, and the need for consensus amongst authors are what make collaborative authoring a more complex task to analyze. Academics such as Dillon rely on anecdotal evidence in analyzing collaborative authoring. In a paper titled "*How collaborative is collaborative writing?*", Dillon interviewed two teams who had each collaboratively authored technical documents. His observations showed that there is a serious discrepancy between the normative and descriptive realities of collaborative authoring. In both teams, the participant with most experience with the topic at hand was given the task of authoring an initial draft. Dillon (1993) found that this primary author was then given the position of a "gatekeeper", controlling further inputs and modifications to the document to the point

of adjusting the document without the consent of the other authors. He did find that in the beginning stages of the process, participants would regularly query on certain details and ask for clarification. Furthermore, early drafts had large amounts of suggestions and discussions embedded in them. Later drafts showed a lack of participants needing clarification as well as discussion points. Dillon wonders why this is as he assumes that these are elements of the collaborative authoring process that should still be running in later drafts. Dillon (1993) suggests that the two week timeframe of each project likely limited the time available for discussion and that consensus was most likely achieved through previously held meetings. Dillon's observations are important because they provide some insight into the expectations of participants in collaborative authoring situations. However, it should be noted that Dillon's observations are based on anecdotal evidence as thorough studies are still lacking.

3.2 The Wiki

The wiki is a collaborative authoring tool that was introduced in 1995 by software developer Ward Cunningham. Cunningham designed the software to be "the simplest online database that could possibly work" (Ebersbach et al. 2006, 9) and named it wiki, shortened from the Hawaiian word wikiwiki which means "quick". The essential characteristic of the wiki is that it allows documents to be written collaboratively. Text can be added, modified, or deleted by participants at any time. Furthermore, documents can be linked to each other in a simple fashion.

The wiki is known for its ease of use. Ebersbach et al. state (2006, 9) that with the wiki, "lots of people with a minimum of organization, planning, money, and time can create something together and communicate with each other from several scattered computers or over the Internet."

The term wiki refers to the overall database that is being created. The database can have several topics in it and within each of these are individual wikipages.

Wikipages are the building blocks of wikis. Each wikipage contains information relevant to its topic and just as importantly, links to other related wikipages.

Wikipages are read by today's web browsers. The information on a wikipage is written in a simple markup language known as wikitext. Wikitext allows users to write in a normal manner while using various commands to format their writing. For example, the use of a "*" before a word makes it a bulleted point. Such as:

- *planning
- Planning

As simple as these commands may be, they do present a challenge for users, especially first time users. Many wiki applications now make use of WYSIWYG (what you see is what you get) interfaces to make writing in wikipages a simple process. The interface is similar to a standard word processor letting a user make simple formatting such as bolding and italicizing.

The uniqueness of the wiki comes from the user's ability to change existing text in a wikipage. Because the wiki is a database in essence, it keeps track of all changes made by users. When a user edits a wikipage, they can add short summaries of why they have made changes. Every wikipage has its own revision history stored so that

users can see what changes were made and if necessary, restore a previous version of the wiki page.

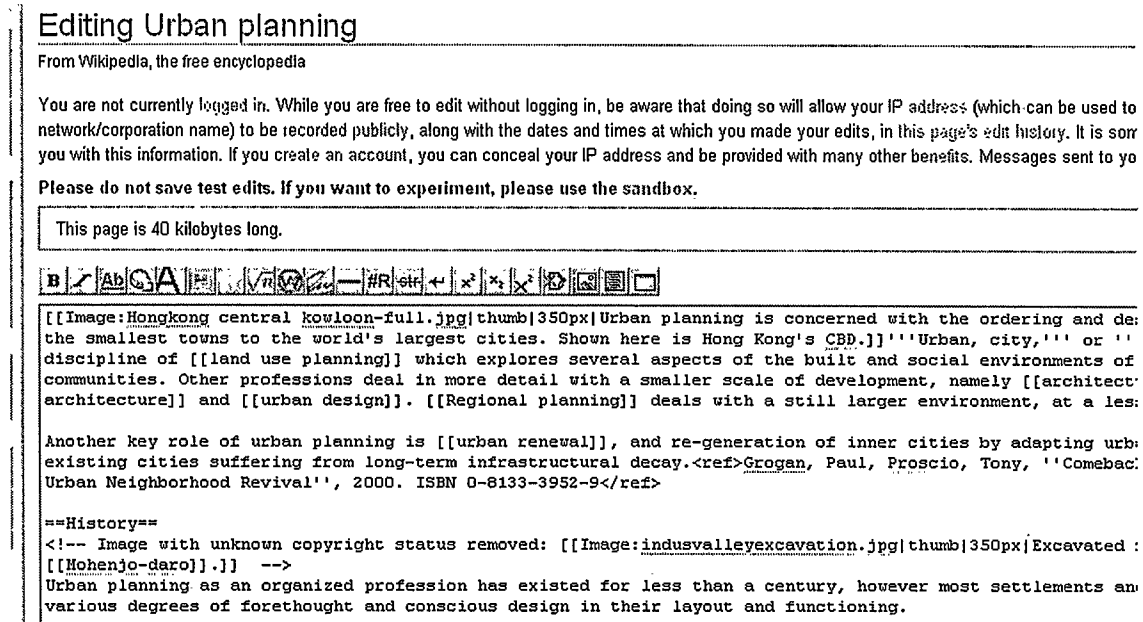


Figure 3.1 Screenshot of Wikitext from Wikipedia.
From http://en.wikipedia.org/w/index.php?title=Talk:Urban_planning&action=edit
(November 19, 2007)

The relatively simple design of the wiki allows it to be used in numerous ways. It can be used in small groups where access is limited to selected participants or it can be open to everybody. It can be setup on organization specific intranets or made available for the public on the Internet.

User access to wikis can be modified according to various parameters. Closed wikis such as those on corporate sites only allow specific access by pre-selected registered users. Open wikis such as those like Wikipedia allow the public at large to edit wiki pages so long as they are registered users. While it is possible for wikis to allow even unregistered users to modify content, few wikis use this option as vandalism on wiki pages can increase when there is no recourse available. If a registered user were to

vandalize a wikipedia, they would most likely be banned from accessing the wiki.

(Ebersbach et al., 2006)

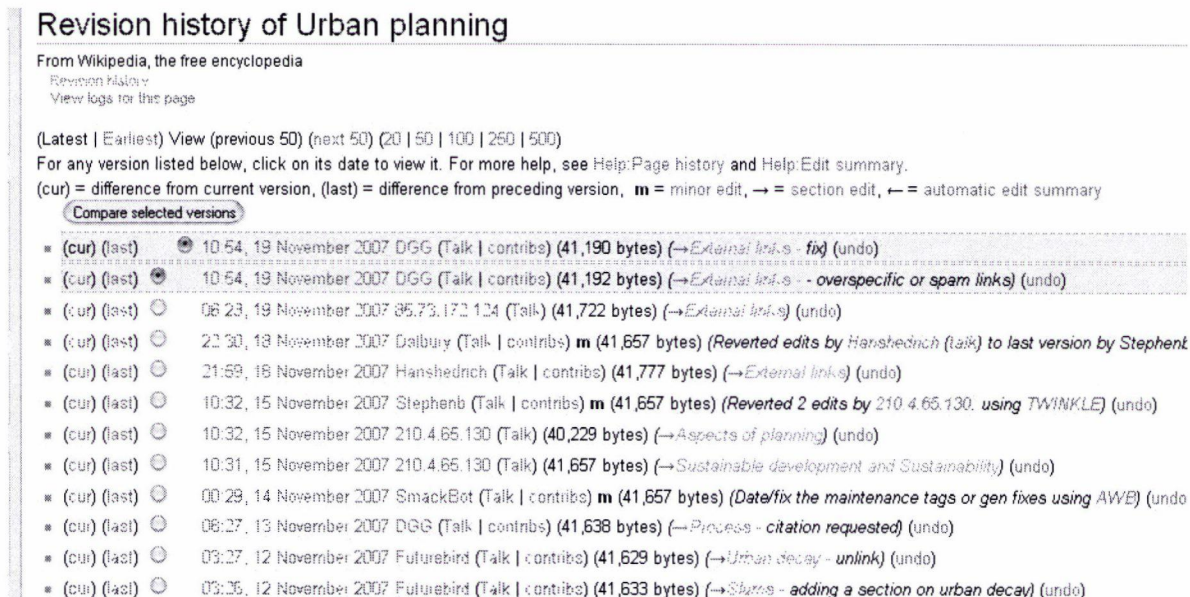


Figure 3.2 Screenshot of Revision History from Wikipedia.

From http://en.wikipedia.org/w/index.php?title=Talk:Urban_planning&action=history (November 19, 2007)

Some wikis can also implement a hierarchy of users. For example, a wikipedia can be placed under the overall editorial control of a single user, often regarded as an expert on the wikipedia's content. Other users may modify and add information to the wikipedia but all changes must be approved by the editor-in-charge of the wikipedia.

(Ebersbach et al., 2006)

3.3 Wiki Experiences

Wikis are increasing in use and as a result, several studies, articles, and books have been written on their use. This section describes several aspects of user experiences with wikis.

Since Wikipedia is the largest example of a wiki, it has received a lot of academic attention. One of the primary reasons for this is because of its increasing use over traditional encyclopedias. In a study comparing Wikipedia to traditional print encyclopedias, Emigh and Herring were curious to see whether online encyclopedias imitated their printed counterparts or whether they were “shaped into new forms by the constraints and affordances of the digital medium.” (Emigh and Herring, 2005, 1) Their results showed (2005, 9) that Wikipedia is “statistically undistinguishable from the print encyclopedia in terms of the formality features measured.” They then asked how it was possible for an online encyclopedia built on a wide-open wiki to so closely match printed counterparts. They discovered (2005, 9) that Wikipedia users “appropriate norms and expectations about what an encyclopedia should be.” Users had pre-conceived notions that encyclopedias should have certain standards of “formality, neutrality, and consistency.” (Emigh and Herring, 2005, 9) That Wikipedia was an online collaboration made no difference as expectations remained unchanged. Furthermore, Emigh and Herring argue (2005, 9) that these expectations are enforced “through the agency of dedicated, socially-approved members of the Wikipedia community.

However, Emigh and Herring note that Wikipedia’s success in closely resembling traditional print counterparts may actually be at complete odds with what they see as the role of the wiki. They state (2005, 10) that the goal of the wiki movement is “to

create content incorporating diverse perspectives, and more generally to foster new and better communication practices.” They argue (2005, 10) that Wikipedia’s success is due to a small group of active users who have appropriated established norms and therefore achieved “ultimate control over the content produced within the system.” As a result, diversity and controversy, which they see as key democratic qualities of the wiki, are homogenized and ultimately silenced.

The work of Emigh and Herring is valuable because it establishes that user expectations of the end-product in a virtual environment can be similar to those in the “real” world. They point out that the way a wiki is structured can have a direct impact on the kind of work that is produced. A wiki that allows users to “retain their content in the face of diverging views or criticism can result in more varied, original, and personal—albeit less polished or coherent—content.” (Emigh and Herring, 2005, 10) On the other hand, as they have shown with Wikipedia, unlimited editorial control can lead to the establishing of strict norms resulting in a “stylistically-consistent—albeit less original and varied—content.” (Emigh and Herring, 2005, 10) While their analysis is of encyclopedic content, it gives potential insight into the structuring and resulting content of similar wiki-based information databases.

In what is possible the first book on the subject of wikis, Ebersbach, Glaser, and Heigl discuss the details of setting up wikis and more importantly, they include insights on user experiences. They at first point out something that is common to first time users of wikis. They state (2006, 9) that “the opportunities and consequences of free co-operation in the context of the typical work organization of our society inevitably lead to irritation, because we assume a contribution from “others” will destroy our own work.”

Yet despite this irritation, like Emigh and Herring, they believe that wikis are proving successful. They ask (2006, 22) a precise question: “why and under what conditions do people cooperate in wiki projects without central controls and external pressure?”

Based on experiences with large groups, they argue that there are a few general principles that contribute to the success of large group processes such as wikis. First is the setting of a loose playful atmosphere where “one’s creative, social and practical skills can best be unfolded...” (2006, 22) Furthermore, they add (2006, 22) that “it is motivating when one can make his or her own designs or contribute an article for a large-scale project.”

Second, they propose that a flat hierarchy is essential for successful wiki projects. In flat hierarchies, “the responsibility for the process, not only subareas, is transferred completely to those individuals performing the process.” (2006, 22)

Next, they add that modification pressure, or challenges, and the will to problem solve are vital to keep self-organized group processes like wikis functioning. Furthermore, the problems to be solved have to be worthwhile and at the same time, changes have to be apparent to users in order to further motivate them. This is an interesting point because “worthwhile” problems often tend to be complex and “wicked” which can result in conflict but which can also be a point of strength through the challenge provided. (Ebersbach et al. 2006)

Next they advocate for simple rules based on a rough overall concept. With simple rules, decision-making and editing processes are easier so long as there is access to all relevant information.

They next argue (2006, 23) that “free will and open access are vital conditions for motivation in self-organization processes.” They point out (2006, 23) that “discussions are removed from alleged expert and specialist circles” which creates “transparency and incentive.” The open access concept is applied directly into practice by introducing texts as soon as they have information, regardless of accuracy or quantity. What is important is that users are able to be “integrated into the cooperative process” (Ebersbach et al. 2006, 23) as soon as possible.

In addition to open access, they stress the importance of diversity in the participants. They state (2006, 24) that “a variety of experiences, backgrounds and knowledge are seen as the basis of creative processes and as an enrichment, and this, every user is initially recognized as an expert.” Building on the concept of modification pressure and challenges, they further state (2006, 24) that “those individuals will become involved who also want to contribute to the situation.” They also add (2006, 24) that “relatively flexible scheduling of one’s work time within an overall process is a further motivator.”

The role of users in wikis can vary. Ebersbach et al. state (2006, 24) that “each individual—once freed from a socio-economic background—enters into relationships with other participants via a wiki in a very multifaceted manner.” The roles that users take are usually self-determined. They quote the work of Jimmy Wales, founder of Wikipedia, who described the typical roles he saw in his daily work on Wikipedia. Wales’s names for the different types of users may be unconventional but they provide interesting insight. He describes one type of users as bees. These are users who are crucial to the functioning of Wikipedia and without whom the site would not operate.

They “provide important content articles, proofread texts or negotiate with difficult users.” (Ebersbach et al. 2006, 25) Malicious users can be sock puppets or vandals, or both. Sock puppets are users who operate on the site under multiple accounts, sometimes to preserve their privacy but more often to manipulate polls and attack other views. (Ebersbach et al. 2006) Also important to Wikipedia are the judges, users that choose to address conflicts and decision-making by being active in juries and regulations committees. (Ebersbach et al. 2006)

While Wikipedia and other projects are considered successes, Ebersbach et al. are quick to warn that wikis are not automatic successes. A key issue facing the success of wikis is acceptance both on the part of the user as well as management in organizations. Ebersbach et al. state (2006, 26) that if wikis “are not being accepted as tools and thus not integrated into the daily work routine, they share the same fate as several knowledge management systems.” This can result in limited use of the wiki, such as a few individuals contributing and consulting, or no use at all, dooming the wiki. A practical element they identify with setting up wikis is that they should not be empty from the start, rather some content should be available for editing right away to entice users to contribute and hopefully benefit in some way. However, there is a possibility that the initial contribution that starts off a process could skew ensuing contributions along a single path.

The use of the wiki is perhaps best summed in a quote from Ebersbach et al. (2006, 30) that “the individual author, on the one hand, receives a much stronger, independent role, while, on the other hand, he disappears in an open system as an

individual author at the same time.” Whether these are positives or negatives depends on the users themselves and the values they place on these outcomes.

3.4 Wikinomics

“A wiki is more than just software for enabling multiple people to edit Web sites. It is a metaphor for a new era of collaboration and participation...” write Tapscott and Williams in their book *Wikinomics* (2006, 18). They state that their conception of collaboration is very different from what most people think it is. They quote (2006, 18) Google CEO Eric Schmidt who says that:

“when you say collaboration, the average forty-five-year-old thinks they know what they’re talking about—teams sitting down, having a nice conversation with nice objectives and a nice attitude. That’s what collaboration means to most people.”

This is what Tapscott and Williams describe as a small-scale type of collaboration that occurs between friends and colleagues in households, communities, and business. In these environments, people are “confined to relatively limited economic roles, whether as passive consumers of mass-produced products or employees trapped deep within organizational bureaucracies...” (Tapscott and Williams, 2006, 10) However, as they argue (2006, 10-11), this situation is changing with the introduction and use of communications technologies that put the “tools required to collaborate, create value, and compete at everybody’s fingertips.”

The collaboration they espouse is what they call peer production, when people organize themselves to collaborate on producing goods and services that fall outside of traditional production methods. For example, traditional news outlets are now competing with tens of thousands of amateurs who create and share their own news and opinions

on widely available websites. (Tapscott and Williams, 2006) But it is not only users who are harnessing these new technologies and becoming co-creators. Today's corporations are also jumping on the mass collaboration bandwagon as they realize that "the collective knowledge, capability, and resources embodied within broad horizontal networks of participants can be mobilized to accomplish much more than one firm acting alone." (Tapscott and Williams, 2006, 18) They describe how companies are using mass-collaboration to build airplanes (Boeing), find gold (Goldcorp), or analyze the human genome (FightAIDS@Home). Seeing success stories of corporations using this technique successfully makes one wonder whether public corporations can also use mass-collaboration in their activities, such as the development of a community plan.

Like Ebersbach et al. who identify general principles for successful wikis, Tapscott and Williams (2006) also identify the general principles of Wikinomics: openness, peering, sharing, and acting globally.

They begin by describing how companies have traditionally been closed in terms of their networking, sharing, and collection of data, ideas, and people. However, with new advances in technology, companies are finding it harder to stay so guarded as they find themselves falling behind in terms of their knowledge and resources. By choosing to become more open, more porous to outside ideas and people, companies are regaining the edge in staying a step ahead, incorporating new knowledge and pushing innovation to create value. With more openness, transparency increases which can increase a company's competitive edge as employees are more trustful and loyal. (Tapscott and Williams, 2006)

While openness increases a company's knowledge base, it is through peering that they can find new ways of creating value. Peering refers to the horizontal organization of production that new technologies offer. More people everyday collaborate in designing goods and services, creating knowledge, or producing shared experiences. (Tapscott and Williams, 2006) These people do so for different reasons, from "fun and altruism to achieving something that is of direct value to them." (Tapscott and Williams, 2006, 25)

Tapscott and Williams (2006) admit that this new mode of "production" has its greatest impact today on information goods, particularly software, media, and entertainment. However, they question if these principles cannot be applied to other sectors. "Why not open source government?" they ask, and "could we make better decisions if we were to tap the insights of a broader and more representative body of participants?" (Tapscott and Williams, 2006, 25)

In a recent article, Tapscott and Williams discussed the practical uses of wikis in today's corporate workplaces. They recognize the challenge of implementing wikis in a traditional work environment where collaboration (in their sense) is a foreign concept. Good use of a wiki they note (2007, 2), is "a balancing act between top-down direction and control, and the need for bottom-up initiative and adoption." Like their principles of Wikinomics, they offer strategies for successfully implementing wikis in the workplace.

They at first are concerned with acceptance and credibility and recommend that wikis should be first implemented through pilot projects. By using a pilot project, their usefulness can be proven while being optimized towards the organizations needs, ultimately resulting in a wider rollout through the entire organization. They also state

(2007, 3) that “fact-based wikis, such as developing a manual, are easier to get up and running than those that are opinion-based.” Selecting where the pilot project goes is crucial so Tapscott and Williams recommend that younger workers should be targeted as they may already be familiar with collaboration technologies.

Next they extol the need for leadership and vision if the wiki is to be sustainable. While early adopters may rush to use the wiki at first, effective leadership will ensure that a critical mass of users is built over time. At the same time, they stress (2007, 3) that effective leadership means being “passionate but not too controlling.” They add that using loose control systems is important for successful wikis. Managers who think that the wiki could be a waste of time usually set strict rules and enforce user monitoring, which are counterproductive to the wiki’s success. Instead, effective managers should be encouraging the use of the new system as a tool for helping employees meet established performance goals. (Tapscott and Williams, 2007, 3)

3.5 Collective Intelligence

The Wikinomics phenomenon and its documentation has been paralleled by a new publication, *The Wisdom of Crowds* by James Surowiecki. The book’s central premise is that no one can become an effective expert in issues of decision-making and policy and that large groups of diverse individuals will make more intelligent and reasonable decisions. Surowiecki provides a multitude of evidence to prove his claim. He describes the three types of problems that individuals and groups try to solve: cognition problems, coordination problems, and cooperation problems. From a planning perspective, cooperation problems are the most relevant. These are problems that

affect the whole group and require a combined solution that depends on individuals trusting each other for their collective interest. Surowiecki argues that these solutions are best achieved by asking large groups of reasonably informed individuals. The group's answer, a collection of individual answers, is usually right as Surowiecki shows. He argues that this superior collective answer is dependant on four conditions for group members: intellectual diversity, independence, and decentralization with aggregation.

Intellectual diversity refers to the existence of different opinions and perspectives. Surowiecki (2004, 36) argues that diversity "expands a group's set of possible solutions and allows the group to conceptualize problems in novel ways." At the same time, diversity weakens some of the "destructive characteristics of group decision making." (Surowiecki (2004, 36). There is a key distinction to make with Surowiecki's argument on intellectual diversity: He writes:

"The fact that cognitive diversity matters does not mean that if you assemble a group of diverse but thoroughly uninformed people, their collective wisdom will be smarter than an expert's. But if you can assemble a diverse group of people who possess varying degrees of knowledge and insight, you're better off entrusting it with major decisions rather than leaving them in the hands of one or two people, no matter how smart those people are." (Surowiecki, 2004, 31)

The second condition is independence and refers to individuals and their "relative freedom from the influence of others" (Surowiecki, 2004, 41). This independent freedom is important because it keeps people from making the same mistake, of automatically agreeing with others say. Furthermore, independent individuals are likely to have new information and perspectives that are valuable to the group, rather than the same old information. Surowiecki summarizes (2004, 41) that the "smartest groups, then, are made of people with diverse perspectives who are able to stay independent of each other."

The third and fourth conditions are decentralization with aggregation which refers to the distribution of power rather than it residing in one central location, where “many of the important decisions are made by individuals based on their local and specific knowledge rather than by an omniscient or farseeing planner.” (Surowiecki, 2004, 70-71) Individuals possess tacit knowledge, that is, knowledge specific to a particular location or context, which is crucial to de-centralization because people closer to a problem are more likely able to understand it and deal with it. Although decentralization rests on this distribution of decision-making power, its weakness is that valuable information is not guaranteed to spread from one group to another. This is why Surowiecki argues that aggregation is important and that a system for sharing newly uncovered knowledge with the rest of the system of groups is needed. Surowiecki recognizes (2004, 71) that the Internet is perhaps the largest decentralized system in the world and one which allows “independence and specialization on the one hand while still allowing people to coordinate their activities and solve difficult problems on the other.”

Surowiecki’s work is important and relevant because it identifies the larger scale concepts behind the Wikinomics phenomenon, revealing the social nature behind groups and how they think, react, and behave.

3.6 The Future is Now

The potential of the wiki has not been lost on some of today’s governments. While still extremely rare, there are a few cases where governments have incorporated the wiki into their projects or at least recognized their usefulness for the future. The most

recent case is a review of the national Policing Act by the New Zealand government. The current Policing Act has existed since 1958 and so the government decided it was time to review and update it for today's society. A key step in its review was the use of a wiki that allowed New Zealanders to suggest new ideas ranging from high-level governance to day-to-day administration. (New Zealand Police, 2007) Launched in early September 2007, the wiki was open for several weeks allowing citizens to participate in the drafting of new laws. However, what was unique about the wiki review was that people outside of New Zealand were encouraged to contribute their ideas. In a newspaper article (Ramachandran, 2007), the superintendant in charge of the wiki review stated that "the wonderful thing about a wiki is we can open it up to people all around the world - other academics and constitutional commentators interested in legislation - and make the talent pool much wider." The wiki review was closed at the end of September 2007 and the information gathered will be forwarded to a parliamentary committee. At the date of writing, the wiki, though closed, can still be accessed by anyone wishing to see the details of the gathered information.

Another wiki initiative of the New Zealand government that is still ongoing is ParticipationNZ which was launched to study the effectiveness of the wiki in electronic governance. (New Zealand State Services Commission, 2007.) New Zealand's government has identified network technologies as a key tool in delivering its services to citizens. ParticipationNZ is therefore part of a larger program that is being developed to explore how technology can be used to provide these services. The wiki is only open to a specific community of government employees, members of academia, and those in the private sector who are essential in developing the government's electronic

governance goals. The wiki is used as a database for the community to store all relevant information in the process of achieving their goal. Community members are asked to post anything from useful web sites, articles, and ideas. (New Zealand State Services Commission, 2007.) Unfortunately, because the wiki is closed to this community, further exploration is not possible.

Wikinomics has also entered into the governance picture. A July 2007 report titled *Moving Ottawa*, written by the Ottawa mayor's task force, discusses public consultation on transportation issues in the city. The report admits to there being little public consultation with citizens when it comes to major transportation issues. It identifies the current model of participation in the city's decision-making process as a representational democracy. Citizens elect representatives who use their own judgment on issues. The report asks whether this process of decision-making can be improved, whether meaningful participation can exist. It proposes that participatory democracy is far more valuable in a system that espouses meaningful participation. Participatory democracy "emphasizes the broad involvement of citizens in the direction and implementation of decisions." (City of Ottawa, 2007, 64) The report espouses *Wikinomics* and recognizes that because of new information technologies, citizen expectations of the information they receive from their governments are growing as well as the role these very citizens play in the development of services. The report recommends modifying the City's website to not only allow easier access to information, but to allow citizens and staff to better interact with each other. Information and data that is buried deep within City Hall should be made more accessible through simple tools that allow the public to access and understand such data. While the report

recognizes the new culture of co-creation, it states that “a good start would be making more public information accessible to people and organizations.” (City of Ottawa, 2007, 65) On the issue of public consultation, the report concludes that “learning how to engage and co-create with a shifting set of self-organized partners will be the best practices and the public consultative mode of the future.” (City of Ottawa, 2007, 65) The specific ways in which this can happen, such as using a wiki, are not discussed, rather the report is intended to highlight a growing trend that will have implications on governments in the future.

3.7 Chapter Conclusion

This chapter has discussed several aspects of the wiki as well as the wider phenomena in which it operates. It has described how collaborative authoring in general is a complex activity that still requires further study. One of the key lessons from Dillon’s work on collaborative authoring is that so called “gatekeepers” tend to exercise a large amount of control over documents than other authors in the group. This chapter has also discussed the basics of the wiki and how it can be viewed as a modifiable database. It has discussed the various ways in which a wiki can be implemented, from small-scale intranets to large-scale projects available to everyone in the Internet. More importantly, this chapter has also discussed the experience of using wikis. It has shown that user expectations of virtual experiences are similar to those in the real world, as can be seen in Wikipedia’s close similarities to traditional encyclopedias. Users can play many roles in wikis such as being judges or content administrators. What users want

from their experience in writing for a wiki rests on whether they are comfortable with having little authoring credit versus having the independence to write as they wish.

This chapter has also introduced *Wikinomics* as a way of creative value using new Web 2.0 technologies. While these technologies are primarily used by private sector businesses, there is growing use of them by public sector organizations as seen by the two cases in New Zealand. A critical implication of *Wikinomics* is the increased expectations that citizens have of their governments. That this has been recognized for instance by the City of Ottawa is only the first step. How governments respond to these new expectations is still to be witnessed on a larger scale.

Finally, this chapter has shown how collective intelligence can be harnessed when trying to solve cooperation problems like those seen in planning. Intellectual diversity, independence, and decentralization with aggregation are four conditions that are important to establish.

Chapter 4 WikiPlanning

This chapter theorizes on the use of the wiki in communicative planning approaches. It will show how the wiki can or can not comply with the requirements set forth by these approaches. It will describe the role of the planner in its implementation as well as the role of the client/citizens.

4.1 The Wiki and Communicative Action

The unique attributes of the wiki make it an interesting tool to consider using in a Communicative Action approach. Innes's principles to evaluate the communicative rationality in processes of deliberation (see Chapter 2) serve as a guide to applying the wiki. The first principle is that all stakeholders must be present in the discussion. The wiki can be used to include all interested stakeholders or it can be configured to allow only pre-selected stakeholders. The uniqueness of the wiki as an online tool allows the potential stakeholder base to be increased. Those stakeholders who have an interest in the discussion but not physically present can still access the wiki regardless of their location. Furthermore, stakeholders whether present or not but limited by time can still use the wiki to voice their opinions whether by creating new content or modifying existing content, after the fact. In a discussion on public participation on the internet in New York, Faga similarly states (2006, 195) that "those with something valuable to say who could not attend the meetings or speak comfortably in public could find their voice in the virtual forum."

The second principle is that all stakeholders must be equally informed and empowered and that power inequalities must be left aside. The nature of a wiki as a

database makes it ideally suited to ensuring that all stakeholders are equally informed in any discussion. For example, a wiki can be established where relevant information to a group's discussion can be posted. Any member can then access the wiki not only to read information but to verify it.

Power inequalities in certain contexts can be neutralized by the use of a wiki. The lack of information access to certain stakeholders can be avoided by giving all stakeholders equal access to the information contained in a wiki. The situation becomes more complex when considering the authoring aspect of the wiki. Giving every stakeholder the power to edit anything contained in a wiki can lead to problems if certain stakeholders wish to disrupt the entire discussion process. Information can be manipulated to cater to a stakeholder's needs. While it would be naïve to think that this would not happen, what is important is that other users are able to notice these manipulations by using the historical changes associated with every wiki page.

Innes states that Habermas's ideal speech situation should be invoked to test the quality of discussion. The wiki shows that it can comply with the ideal speech conditions (See Chapter 2.2). Each participant in a wiki does have an equal chance to initiate communication by adding wiki pages as well as continuing communication by modifying wiki pages. At the same time, each actor has the equal chance to explain and challenge justifications. For example, Ebersbach et al. described how panels can be established if certain statements and justifications are challenged. The author not only gets to explain themselves but does so before an arbitrary panel. Again, Faga has shown (2006, 195) in a discussion on public participation in New York that when "online, everyone has an

equal chance to speak, without constraint and with ample time for reflection and forethought.”

Clarification requested re: Density

The article states, "Densities are usually measured as the floor area of buildings divided by the land area, or in a residential context, by the number of dwellings per unit area. Floor area ratios below 1.5 are low density. Plot ratios above five are very high density." I don't have a problem with (floor area)/(land area), since you are dividing a pure (unitless) number. But in (number of dwellings)/(land area), you are dividing a pure number by an area in an attempt to arrive at a pure number. This should be specified.

It looks as if that's been clarified, but Floor Area Ratio is being used ambiguously. Although it's defined as (floor area)/(land area), the numbers used (e.g., 1.5, 5) are (area)/(area of building footprints). Could someone who is familiar with the term correct that? Here's the original change if that helps. Bennetto 02:26, 5 August 2005 (UTC)

Floor area ratio is only one way of measuring density, and not necessarily the most useful, since different kinds of buildings are occupied in different ways. There is also residential density (the number of dwellings per Ha or per Km², or per acre or per sq. mile), and there is population density (number of people per Ha/Sq.Km/acre/sq.mile). And then there are even more specific uses of the term 'urban density' (by people such as Peter Newman) which refers to the number of dwellings divided by the total area of 'urban land' in any given city, or part of a city, such as a local government area, or census district etc). There are also measures of density (number of jobs per unit of area, take your pick, SI or Imperial), and any number of others that are relevant to the planning issue under consideration. This needs a fair bit of work (esp the transport section). Eyedubya 11:36, 20 May 2007 (UTC)

Naming / 'land use planning'

Surely a better name for this article would be "Land use planning" as planning occurs in rural areas as well. G-Man 19:13, 13 August 2005 (UTC)

Urban planning and land use planning are two separate areas of study. Land use planning is a topic studied by urban planners, but they are not necessarily the same. August 2005 (UTC)

So why does land use planning redirect here then? G-Man 19:32, 19 August 2005 (UTC)

Because no one has written the article. In the meantime it can point here, but this article is about urban planning! Feel free to add your own article and link them together. --stochata 19:55, 19 August 2005 (UTC)

In with the above comments, if anything urban planning is only one part of land use planning, I have had a go at what I hope is up to scratch. I kept it minimalist as I note there are a lot of "xxx planning" articles most of which are not very good. Bjrobinson 13:29, 20 February 2006 (UTC)

Addressing considered a part of urban planning?

Mention if house addressing and street numbering have ever been considered a part of urban planning, and why not. Give a link to http://en.wikipedia.org/wiki/Urban_planning. Planners are tasked to manage address systems, but it's not an essential element of "urban planning" by any stretch. In my personal experience, the

Figure 4.1 Screenshot showing Discussion Forum on a Wikipage.

From http://en.wikipedia.org/wiki/Talk:Urban_planning

(November 19, 2007)

As noted previously, the ideal speech situation only serves as a useful heuristic. The ultimate purpose of using a Communicative Action approach is to reach mutual understanding and a consensus. The wiki clearly has the potential to help achieve these two goals by allowing participants to “take into account important knowledge and perspectives...” (Innes, 1998, 60)

4.2 The Wiki and the Dialogical Approach

The wiki's use in a Dialogical Planning approach is similar to that of a Communicative Action approach but with some important differences. Just as the dialogical planner can play any number of roles, so too can the wiki be adapted to suit the needs of the planner in each of these roles. The planner as communicator uses the wiki to network in order to provide and receive information. The planner as public educator uses the wiki to provide valuable knowledge to their own colleagues, stakeholders, and anyone who wishes to learn. The planner as mediator uses the wiki and arbitration panels to resolve disputes. The planner as advocate uses the wiki to bring attention to important issues. The wiki can play one of these roles, or it can play them all.

The process of wide reflective equilibrium as espoused in the Dialogical Planning approach is important when discussing the use of the wiki. The WRE is a key method for achieving consensus which is a primary goal of both Communicative Action and Dialogical Planning approaches. The idea of an overlapping consensus is the key step in using the WRE. Harper and Stein state (2006, 147) that it can be "on shared moral principles, general or specific liberal democratic values, empirical facts, specific judgements or concrete actions." This initial step can be facilitated by a wiki. For example, stakeholders can provide information on any subject which is collected on a wikipage. Because the wikipage can be edited by any of the stakeholders, information agreed on by everyone should be left standing at the end. This would of course not be an easy process. Another example could be where stakeholders present their understanding of what they think the particular problem is to a wikipage. Once again,

the process of editing, modifying, and deleting should lead to problems/issues that everyone can agree on.

From this initial consensus, the WRE applies external perspectives and theories in the hopes of allowing stakeholders to understand other perspectives and possibly change some of their own assumptions and beliefs. The wiki is an ideal tool for this particular process. The wiki allows stakeholders themselves to add their perspectives on any number of issues that can be contained in a wiki. These perspectives are augmented by the possible use of participants outside of the local context of the discussion. For example, a planner facilitating a discussion with stakeholders can engage external perspectives and theories by inviting or allowing participants who are in other locations and who have knowledge and expertise unavailable to the local group. The wiki of course allows this external perspective to be easily applied because it is an online tool and can be accessed by anyone with an Internet connection. This can be best seen in the case of the New Zealand government's review of their Policing Act. Rather than only allow their own citizens to participate in the wiki-based review, they allowed anyone in the world to contribute. By doing this, they substantially increased the knowledge base of the project even if these outside participants would never fall under the jurisdiction of the new policing act.

4.3 Power, Trust, and the Ladder

Arnstein's ladder of citizen participation (see Figure 2.1) serves as a useful guide in determining whether the wiki can be used for meaningful participation. The variety of ways in which a wiki can be used results in different levels of correspondence to Arnstein's ladder.

The use of a wiki as an information-only catalogue with no stakeholder access to the fundamental right to modify such information would directly relate to the rungs of informing and consultation which Arnstein identifies as forms of tokenism. In this situation, Arnstein argues that stakeholders (especially the marginalized) are allowed to have a voice "but lack the power to insure that their views will be heeded by the powerful." (Arnstein, 1969) An example would be a planner publishing a planning document through a wiki but disallowing any modifications to be made. The publishing of the document is only intended to serve as a notification that such a document exists and can be viewed, no more.

The wiki can also fall into the trap of the highest level of tokenism, placation. Arnstein describes placation as situations where citizens/stakeholders are given the power to advise on issues but the power to legitimize this advice and act on it rests with the more powerful stakeholders. A wiki that allows all stakeholders to modify text and make their own additions but which leaves the ultimate permanence of these modifications to a higher level authority, such as a planner or powerful stakeholder, would definitely fall under placation.

How then does the wiki work with Arnstein's higher rungs of citizen power? Partnership, delegated power, and citizen control are the three levels where Arnstein

sees meaningful participation happening, where decision-making control rises. The use of a wiki to allow the co-authoring of a planning document is a good example of this type of participation. If the wiki is open to all stakeholders/citizens in a community then it has the potential of falling into delegated power or citizen control. However, as Arnstein warns that full citizen control is unlikely, rather, citizen control in this context would mean acquiring a level of power that can guarantee to manage, govern, and control the rules. In this context, a wiki can not give ultimate power to any group of stakeholders. For example, a planning document co-authored by a group of stakeholders would likely still have to fall under the approval of government agencies, such as city council. However, the key here is that the wiki can afford enough power to stakeholders to allow them to gain some measure of control over decisions that can have a direct impact on them.

But what of trust? We have seen that Arnstein's ladder serves as a simplified guide to citizen power and that while power is relevant to any discussion where control and responsibility are present, it is the concept of trust that should also be considered (See Chapter 2). It should come as no surprise that trust is a major issue in the usability and effectiveness of a wiki. If anyone has the ability to add or edit information on a wikipage, how does one verify the validity of their modifications? More importantly, is it necessary to verify new information in the first place? Unfortunately the work of Wales has found that verifying content is necessary with wikis. The propensity of "sock puppets" and "vandals" (See Chapter 3.3) to wreak havoc on a wiki by posing as multiple users, manipulating polls, and attacking other users makes it necessary to develop a system of trust that can allow a wiki to function properly. Of course, any

Internet user who has frequented a blog or message forum will be familiar with these kinds of users.

Trust metrics could be developed to address the issue of trust in a wiki. A trust metric is a measure of how a member of a group is trusted by other members. A familiar example of a trust metric is the feedback system used by eBay sellers and buyers who leave positive and negative comments for each other based on their transactions. The assumption is that those buyers and sellers with more positive feedback can be trusted to engage in a positive economic transaction.

A more applicable trust metric is the Advogato trust metric developed by Raph Levien. Advogato is an online community of free software developers where users exchange ideas and collaborate on projects. Levien developed a trust metric that allowed users to certify each other on four levels: observer, apprentice, journeyer and master. The goal of the Advogato trust metric is to reduce the impact of malicious users and outside attacks. This is accomplished by peers assigning levels to each other who are then referenced against trusted masters. The more peer connections a user has to others on the network, the more trusted they are deemed to be. New users to the community start with a smaller network of peer connections and therefore receive fewer privileges.

While the Advogato trust metric can be applied to a wiki there are some issues when considering the democratic aspect of the wiki. The restriction of user privileges based on user experience and peer connectedness limits the power of a user to contribute and have their voice heard from the beginning. While it is a positive that it is easier to find trusted users when using the Advogato trust metric, the focus on attack-

resistance at the expense of democratic fairness would fly in the face of the principles espoused in communicative planning approaches. Furthermore, the Advogato trust metric can be described as a method of enforcing instrumental trust according to Nissenbaum. Through this perspective, the Advogato trust metric is really designed to provide basic security and assurance and nothing to do with nourishing trust.

If an instrumental trust metric like that of Advogato is not useable in a wiki context, how does one identify trusted individuals and their content? Perhaps not surprisingly, a potential answer comes from a study of Wikipedia. Forte and Bruckman (2005) have shown that although Wikipedia does not grant authoring credit to any author, there still exists an informal system of credit that allows users to achieve levels of credibility and trust. Forte and Bruckman (2005) have shown that prominent users on Wikipedia have built up their credibility by not only contributing at higher levels than other users but by also making themselves known in the community through vigorous discussions on many subjects. While Wikipedia has no formal trust metrics, this informal system has developed to ensure that credit is given when possible as well as recognized. One is reminded of Nissenbaum's non-instrumental trust where nourishing trust is the point of the discussion.

4.4 Implementing a Wiki

Since the wiki is an open piece of software, there are numerous possible ways of implementing one for use in the planning process. Chapters 2 and 3 have shown the considerations that have to go in implementing a wiki in order to meet legitimizing principles as well as problems based on anecdotal user experiences. Based on these,

there are three general conditions of participation that have to be addressed and decided in the beginning stages of implementing a wiki. The three conditions are perspective, transparency, and responsibility.

Perspective is a key condition to consider because it determines the quantity and possibly the quality of ideas, thoughts, facts, and opinions that are engaged in discourse through a wiki. As seen in Chapter 2, the perspectives engaged can be thought of as internal or external. Whether or not something classifies as internal or external ultimately depends on the frame of reference. Some examples of this in planning practice will help illustrate the point. Let's say that a planner for a municipal government is tasked with the creation of a planning report and chooses to use a wiki in order to gain some new and additional insights through a collaborative authoring process. If they choose to restrict access of the wiki to other planners in the organization, we could argue that the planner is engaging internal perspectives because the range of new thoughts, ideas, facts, and so on is limited to a certain group falling under one profession, even if they do have a multitude of backgrounds and experiences. This is not necessarily a bad thing, after all, the planner by engaging other planners throughout the organization is already expanding upon the sole perspective they would have brought in the first place. Furthermore, let's say that the planner opens the wiki the other departments in the organization and we now have engineers, accountants, social workers, and so on contributing to the planning report. We can say that the range of perspectives has widened, whether we want to say that it is still an internal or external approach still depends on our frame of reference. Of course the ultimate engagement of external perspectives is opening a wiki to all citizens of a community.

Transparency is the next condition to consider when implementing a wiki.

Transparency in this case refers to the degree to which users/participants are identifiable to one another. Like the issue of perspective, there are many levels of transparency, from completely anonymous users to registered users that can be tracked. There are advantages and disadvantages to both. Anonymous users have the advantage of saying what they want without any immediate repercussions to themselves. This has the benefit of letting users voice opinions that they think may not be well received. Whether or not the opinion is well received or not, the user is protected. At the same time, registering users also has its advantages. The aforementioned issue with trust metrics is a fine example of how a system of credibility and trust could be built that promotes a healthy discourse, that is, discourse without false or misleading information that can be easily traced to a user. The selection of either anonymous users or registered users, ultimately comes down to the context of the debate and what the planners feels is necessary to promote a healthy debate.

The final consideration when implementing a wiki is the level of responsibility that is given to users. Naturally, the reason the wiki is being considered is because of its uniqueness in allowing users to modify text. We have already discussed this aspect in the previous section on Power and Trust so not much has to be said except that the planner has to be deeply aware of the authoring responsibility that they give to users.

4.5 Implementing a Wiki: Planner Roles

We have seen that the Dialogical Planner wears many hats. Depending on the context and the implementation of the wiki, the planner has several roles to play. Some

of them have already been alluded to in previous sections but this section will show that there are three major roles for the planner to play: the regulator, the legitimizer, and the expert.

The planner as a regulator of a wiki is a role that has been discussed but which needs some final clarification. In this role, the planner establishes the ground rules of discourse on a wiki and makes it clear what is expected of users. The Terms and Conditions of the New Zealand based ParticipationNZ wiki is a good example of this. The Terms and Conditions in this wiki cover the areas of mutual trust, access and passwords, use, editing policy, membership, and privacy policy. (New Zealand State Services Commission, 2007.) The public servants who run ParticipationNZ serve as the regulators of the site. Through a user's acceptance of the Terms and Conditions, they acknowledge that the wiki administrators may edit any or remove any postings that do not comply with the rules. Furthermore, users who break the Terms and Conditions can have their access to the wiki removed. These are drastic measures so the administrators also offer a Help Desk that users can contact in case of doubt or conflict. (New Zealand State Services Commission, 2007.) The ParticipationNZ wiki is a good example illustrating one of the many ways in which a wiki can be implemented and the role of the regulator.

The planner as legitimizer is a much more difficult role to discuss because it deals with the contentious issue of what constitutes knowledge, truth, and valid information. In the wiki's case, the planner as legitimizer has to decide what stays and what goes. The temptation to enter into a discussion that distinguishes between fact-based and value/opinion-based wikis has to be resisted when the theoretical framework

of this discussion rests in Communicative Action and Dialogical Planning. Rather, what needs to be realized is that there is no hard distinction to be made between neutral facts and subjective values. (Putnam, 1990)

Lindblom (1979) has argued that knowledge is a result of agreement and that there is no independent and objective view of truth that is not influenced by human interests and values. Harper and Stein (2006, 126) add that:

“the only way to test a belief (or change a belief) is by appeal to the relevant community of inquirers. Knowledge is not autonomous; what can legitimately be said to be true has to emerge out of partisan debate. In the case of society, the relevant community is all citizens.”

What does this mean for the planner as legitimizer? The dialogical planner holds to neo-pragmatism as a key attribute of their approach. The dialogical planner is able to count on multiple conceptions of rationality, multiple reasons for actions. But the true test of what stays and what goes are those pieces of information and reasons that “are most productive to the human enterprise—which ones are most useful.” (Harper and Stein, 2006, 57)

Through communication, what a user says becomes knowledge and information in any dialogue. (Innes, 1998) The planner as legitimizer focuses on whether these pieces of knowledge and information are contextually relevant, and whether they ultimately justify good reasons.

The last major role is that of the planner as expert. As professionals, planners hold a specialized body of knowledge that is not immediately accessible to other users. As such, planners as experts serve a crucial role in helping other users understand the impact of their decisions and actions. The roll of the intellect and the effect on it by the

Web 2.0 has been discussed by Habermas. Habermas (2006) argues that new forms of Internet communication weaken the effectiveness of traditional media by decentralizing access to unedited stories. Basically, unedited stories filled with ambiguity between different sources and types of information are easily accessed and spread through the Internet. The result is a lack of focus on matters which have traditionally been shaped by media editors. The parallel can be drawn to the wiki. Planners are needed to create and direct focus on matters that are relevant to whatever the planning issue is. The planner as intellect, as expert, is crucial but as we will see, the planner is not the only one claiming expert status.

4.6 Implementing a Wiki: Client Roles

The role of the client/participant/user in a dialogue is always important to consider. Like the role of the planner, the role of the client in the context of a wiki takes on some major roles: the client as expert, the client as part-owner, and the expectant client.

We have seen that the planner plays the role of the expert as a holder of specialized knowledge. At the same time, we need to recognize that the client possesses their own specialized knowledge. This can be professional knowledge on par with that which the planner possesses but in a different field. But more importantly, the client possesses tacit knowledge, that is, knowledge grounded in a localized context. The client who can provide information that is specific to a certain area and which would be unavailable to others then becomes an expert in their own right. The wiki allows

these local experts to share their information and opinions with others, clearly engaging the wide reflective equilibrium. Faga has touched on this, stating:

“We can safely assume that the public is now in charge. Our talents and experience as planner and designers are already being tested every day by the need to create buildings and spaces that truly respond to the public’s needs and desires. With a few notable exceptions, the days of “voila” design and centralized control of planning are behind us.” (2006, 200)

Depending on the level of authoring responsibility and the creative control over decision-making, the wiki also allows the client to become a part-owner of any of the content that is generated. If a client is allowed to co-author a document alongside others, the sense of ownership over the content could increase. The more a client contributes, and the more they see themselves as having a say, the more ownership they will claim. This is a good thing. Including clients in the process who take on ownership characteristics could lead to a less contentious adoption of a plan. Furthermore, and more importantly, the sense of ownership over a plan could also result in better implementation of the plan.

Lastly, the role of the client in a wiki-based approach is one of expectance. In light of the Wikinomics phenomenon and the growing trend of businesses who co-create with their own clients, citizens could come to expect the same from their own governments. This has been recognized for example in the *Moving Ottawa* document. Whether it happens and if so to what level remains to be seen. Planners need to be aware that citizen expectations are poised to change as information and ideas are more freely available in a world where everyone is a possible expert.

4.7 Implementing a Wiki: Additional Challenges

The implementation of a wiki is not without its challenges. While previous sections have touched on some of these challenges, this section is meant to introduce and expand upon some additional challenges facing the wiki. The issues of legitimation and credibility are major challenges facing the wiki and they have been discussed in previous sections. Not much more needs to be said other than careful attention needs to be paid to them by both planners and clients.

4.7.1 Relation to decision-making

Neuman has stated (2000, 345) that “consensus processes typically occur in forums where issues and policies are discussed—not in arenas, where decisions are made and actions are taken.” The question then has to be asked of the wiki: Is it enough to allow users to express themselves and to help create content if the real decision-making power to effect change lies elsewhere? If the power to approve a plan lies with city council, is there any point to focusing on consensus and communication? On this issue, Harper and Stein, who espouse Dialogical Planning, agree. “There are serious problems of institutional/arena/forum design to integrate the communicative approach with the structures of representative government, so that it augments and complements it.” (Harper and Stein, 2006, 162) However, Harper and Stein add (2006, 162) that “governments should not use this as an excuse to reject more collaborative forms of planning, given that existing participatory structures clearly haven’t been able to handle many contemporary problems.” The goal of consensus and understanding is not diminished because of a missing link to decision-making power.

Rather, communication is key to comprehending this missing link and acting on it. As Neuman has said:

This is not to dismiss the important gains that can emerge from consensus processes, even if they suffer from the limits discussed here. Regardless of the final outcome of any given consensus-seeking process, it can help build some or all of the following: networks; communities; trust; intellectual, social, and political capital; and shared definitions and understandings. (2000, 345)

Perhaps this is all we ask of the wiki?

Furthermore, the planner must be aware that any participation processes that are not inherently linked to decision-making arenas run the risk of alienating stakeholders who find that their voices really have no say. This has the potential of putting future engagements at risk.

4.7.2 The Digital Divide

While the issue of who to allow to access a wiki has been brought up, the larger issue of the digital divide has not been mentioned. The digital divide is described as “the troubling gap between those who use computers and the Internet and those who do not.” (Mehra et al., 2004, 787) Originally meant to describe the gap between those with and without access to computers, the term has recently come to refer to the gap regarding access to the Internet as well as broadband connectivity.

As an online tool based on computers, the wiki is faced with the reality of the digital divide depending on the locale. In order to expand this discussion, the digital divide will be discussed in a Canadian context. According to Statistics Canada (2004), 64% of households in Canada were involved in regular use of the Internet whether through work, home, or public facilities. Furthermore, 82% of high income households

had Internet use at home compared to only 45% of low income households. This is clearly an example of the digital divide showing that lower income households have significantly less levels of Internet use. However, Statistics Canada notes that the level of Internet use among low income households has the highest rate of growth among all income levels.

When dealing with a public access wiki, the planner then needs to be aware that not everyone has the opportunity to participate. Not everyone has a computer or access to the Internet. This is the challenge of using any online participation tool. On the one hand, the Internet allows a broad range of people to have easy access to resources, information, and opinions, while on the other hand, those without access are denied these benefits. Faga (2006, 77-78) nicely sums up the issue when she states that “interactive websites to disseminate project information are a godsend, but only for those with computers and the ability to use them.”

4.7.3 Vandalism

Another major challenge facing the use of wikis is vandalism which has been described briefly in previous sections. Unfortunately, when everyone has access to a public wiki, vandalism is a very real problem, especially on wikipages dealing with contentious issues. The same challenge exists when using a wiki in planning, especially in a dialogue involving contentious issues. There are several measures that can be used to prevent and reduce vandalism. One could register users and implement a trust metric like that of Advogato. But what does one do in an anonymous authoring environment? The history of any wikipage is the starting point in that any destructive

revisions can be easily undone. More importantly, if desired, wikis can be designed to track the unique ip addresses of every user, even those who choose to remain anonymous. Each ip address can then be resolved to a specific computer on the Internet, wherever it may be. Wikipedia once again serves as a good example of this. The site has a multitude of vandals destructively manipulating wikipages on a daily basis. Buried deep within the source code of every wikipage is a log of every ip address that has edited the page. This means that any destructive changes can be traced to an ip address if one wishes to do so.

And it has been done, Wikiscanner was launched by a Cal Tech graduate student who was interested in seeing whether businesses, organizations, and governments were secretly editing information on Wikipedia. His results found that all these entities had engaged in the secret manipulation of Wikipedia articles, often changing information to cast them in a better light. Wikiscanner is still active today and has become a vital external component for keeping honesty and trust a constant on Wikipedia. Clearly the same can be done for a wiki based planning approach. Ip addresses can be tracked and the planner, as well as clients, can know who malicious contributors are and where they originate from.

Furthermore, there exists a danger which goes beyond simple maliciousness on wikis. Because of the nature of the internet and the anonymity afforded by it, planners need to be aware that stakeholders can be misrepresented by individuals or groups who have no vested interest in the planning process other than to act on behalf of someone else's interests. The potential exists for individuals to act as hired guns, selling their voice to the highest bidder. A tool like Wikiscanner can only go so far in preventing this

situation. The planner could identify users through their ip addresses but it should be noted that these addresses can be manipulated and faked by more technologically advanced individuals and parties. One is reminded of the earlier discussion on security vs. trust and the need for a fine balance between the two.

4.7.4 Permanence

Permanence is an issue that faces every wiki. One of Wikipedia's strengths is that it is an ongoing project and that any one of its millions of wikipages is constantly open to new information. Nothing is ever set in stone with Wikipedia. However, can wikis used in planning processes be left open indefinitely? The answer ultimately lies in the context in which they are used. If used in a traditional municipal planning process, a wiki has to be closed at some point in order to move on to the next steps of processing and formulating the plan before it is presented to the decision-making body which in this context would be city council. Once the plan is approved and finalized, no further modifications are allowed to it unless certain processes are initiated.

The wiki-based review of the New Zealand Policing Act once again provides a good example of this. The wiki was only open for three weeks before it was closed and all content was forwarded to decision-making bodies. The wiki was still left online and accessible to anyone on the internet in its closed state.

The finalizing of any wiki-based plan seems counter-productive to the purposes of the wiki in that constant updating is not allowed and new perspectives can no longer be added. Still, one has to examine the original intent of using a wiki in the first place. When used for allowing people to have a voice, to access information, to gain a better

understanding on an issue, and to have some control over content, then the wiki has served its purpose, even if it has to be closed off. Of course, one can always initiate a wiki on a finalized plan to gain further feedback and generate discussion.

4.8 Chapter Conclusion

This chapter has demonstrated the ways in which the wiki complies within the frameworks of two communicative planning approaches. It has shown that the wiki is good tool for giving access to stakeholders and allowing them to be informed, two of the key requirements for dialogue in a Communicative Action process. The biggest strength of the wiki is its engagement of the wide reflective equilibrium which is an ideal espoused in the Dialogical Planning approach.

On the issue of power and citizen participation, the role of the wiki is dependant on the intentions of those who use it. Therefore, the wiki's use can range anywhere from placation to delegated power.

When implementing a wiki, there are three major considerations: perspective, transparency, responsibility. Addressing these three concerns determines the way in which the wiki works and what is expected from it. The planner has several roles in implementing and running a wiki. The major roles are that of regulator, legitimizer, and expert. At the same time, the client/participant has major roles to play in a wiki: as expert, co-owner of content, and of the expectant. Implementing a wiki has its share of challenges which include the legitimacy of information, credibility and trust, access and the digital divide, and wiki vandalism. All these challenges can be addressed in different ways depending on the context of each situation.

Finally, this chapter has also discussed some additional challenges facing the implementation of a wiki. It has to be realized that the wiki's use is ultimately dependant on the context in which it is used. The power to use a wiki is given and the power to link it to decision-making processes is also given in most cases. However, this does not mean that the wiki cannot play an important role in communicative processes.

Chapter 5 Conclusion

Based on the previous chapter's findings, this chapter will conclude on whether the wiki can be an effective planning tool. It will make general recommendations on using wikis in public planning and will argue for a changed role between planner and citizen.

5.1 The Case for WikiPlanning

This work has shown how the wiki can be used in communicative planning approaches. It has explored the necessary considerations that go into implementing a wiki and has shown the roles that planners and clients play. This work therefore concludes that the wiki can be an effective tool for planning because it increases public participation, adds knowledge and aids understanding, and changes the relationship between planner and client.

5.1.1 Increases Public Participation

The wiki can increase public participation in several ways. First, as an online tool, it allows users who are unable to attend local meetings to still have a say and contribute. Second, it affords users enough power to have some say in the decision-making process if they are given the ability to fully edit. Lastly, the responsibility of editing implies ownership of content and therefore encourages increases participation.

5.1.2 Adds Knowledge and Aids Understanding.

The wiki adds knowledge by allowing all users to publish information that may not be readily available to other users. As an online tool, the knowledge base of the wiki can be expanded to include an almost limitless number of sources. The wiki also aids understanding by allowing these users to express their thoughts and opinions. Users who are able to express their thoughts freely and read the thoughts of others ideally reach a state of mutual understanding.

5.1.3 A New Relationship between Planner and Client

The wiki relies on the planner and client assuming some standard roles. The planner is required to act as a regulator, legitimizer, and expert while the client acts as an expert and contributor. However, the nature of the wiki forges a new relationship between the planner and client into one of a collaborative partnership. As content contributors and editors, clients take on ownership roles along with planners. At the same time, an increasing number of clients have the increased expectation of being consulted by planners in the future.

5.2 Final Thoughts

Faga has considered (2006, 198) whether in the future “no one will need to spend four or five hours attending a public meeting when he or she can sit in a favourite chair and respond directly through cable or broadband.” Furthermore, she asks (2006, 198), “will virtual participation take the place of meetings, or will it continue to supplement personal encounters?”

While the Wikinomics phenomenon is enabled by new Internet technologies, it still rests within the very physical and very real world of daily life. The same has to be said of WikiPlanning. Though the Internet and wiki afford us a new and exciting means of public participation, it has to be realized that WikiPlanning remains only one of many tools that a planner has at their disposal. Faga (2006) has noted that the highly successful *imagine New York* online project was in the end a complementary tool to the in-person planning events. Indeed, the wikis use in planning should be seen as part of a larger consultation package that the planner has at their disposal. Furthermore, the wiki can be implemented in such a way that it plays the role of pursuing public consensus or the role of a creation medium. What the planner selects depends on the other tools they have at their disposal such as open houses, design charettes, surveys, and so on.

The digital divide could prevent us from using WikiPlanning to an extensive degree because doing so would exclude marginalized groups such as low-income households, the elderly, the young, and those with little computer knowledge. However, while some stakeholders may not have access to a wiki if it were used in planning, it has to be noted that so many more stakeholders would at the same time.

Planners who engage in public participation, are often faced with the possibility of low attendances and apathy from stakeholders. However, this should not stop them from trying new ways of engaging the public. Indeed, whether people choose to participate or not is not nearly as important as giving them the opportunity to participate in the first place.

In her conclusion to her book on designing public consensus, Faga writes:

“We now deal with public audiences that are extremely well versed in video technology and computer capabilities. Expectations are high, and younger generations will put even greater demands on our ability to convey information dynamically...But we, the designers and planners of the future, will have to move faster and work smarter in order to keep up.” (2006, 199)

While Faga realizes the potential of the Internet and its effect on planning, one minor modification needs to be made to her statement in order to truly capture the spirit of the wiki and its potential for planning.

“Expectations are high, and younger generations will put even greater demands on our ability to convey *and receive* information dynamically.”

GLOSSARY OF TERMS

Client

The term client is synonymous with the terms user and participant and refers to the individuals or groups involved in the planning process.

Collaborative Authoring

A process where a written work is authored by multiple individuals.

Communicative Action

A theory that identifies rationality as being located in interpersonal communication.

Digital Divide

The gap that exists between those who have access to computers and the Internet and those who do not.

Internet protocol (ip) address

An address unique to electronic devices making it possible for identification and communication.

Planning

An activity done by individuals deciding on a desired future and implementing actions to achieve it.

Power

The potential to effect change through one's actions.

Trust

The reliance that exists between two parties.

Web 2.0

Web-based services and communities characterized by a shift from static to dynamic as well as reciprocal information.

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