DIGITAL DESIGNS IN CIVIC DISCOURSE:
- A Theoretical Design Perspective

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Abstract

To improve quality of life, all communities must engage in civic discourse about issues of common concern, which may elicit divergent opinions particularly in liberal democracies. Appropriate forums with properly articulated and understood rules of engagement help organize discussions and discourses and enable them to remain civil even when contending parties hold strong and disparate opinions. Over the past decade, digital technology has allowed citizenship engagement to substantially evolve, leading to a need to reevaluate the commonly understood rules of engagement in civic discourse. In addition, no clear set of guidelines exists on how to transfer the extant rules of civic discourse into the digital world. This paper provides a theory driven framework for the design of information system to conduct civic discourse. The paper draws on earlier works in the theory of communication action and the theory of structuration. It combines these two theories and outlines how they can be translated into an information system. Testable hypotheses are drawn. The paper concludes by outlining the contributions of this paper to the literature on digital civil discourse and proposes future areas of study.

Keywords: Civic Discussion, Civic Discourse, Public Information Systems, Structuration theory, Design Research.

1. Introduction

One of the distinguishing features of modern democracies is the onus it places on citizens to be engaged in governance. With the freedom to choose governments, via the exercise of universal adult franchise, comes the responsibility to engage, not just once every few years in a voting booth, but also in an ongoing exchange of ideas in an open market, often called the "marketplace of ideas." Just as in the marketplace of commerce, the marketplace of ideas requires structure and processes. The genesis of the phrase marketplace of ideas is with Justice Oliver Wendell Holmes Jr but its exact formulation was by Justice William Brennan.[1] The marketplace of ideas is often used in legal cases regarding the First Amendment to the U.S. Constitution and legal commentary about the free exchange of opinions. The metaphor of "marketplace" suggests that exchange of ideas in a democracy is akin to the

exchange of goods and services in a free market. Netanel (2005) argues that the U.S. Supreme Court has repeatedly asserted that the First Amendment to the U.S. Constitution promotes the, "the widest possible dissemination of information from diverse and antagonistic sources." He goes on to conclude that, "the multiplicity of speakers – those who are able to draw upon existing expression in fashioning their own – has independent value for our 'marketplace of ideas' over and above variety in expressive output."

The provision of a structured marketplace of ideas can come about by the creation of a framework for civic discourse, which may lead to a citizenry that is more deliberative and less combative partisans. Deliberative citizenship fosters open-mindedness with a willingness to compromise and collaborate. To create more informed choices Thaler and Sunstein (2008) suggests that that private and public institutions need to "nudge" people in directions that will improve their well-being, without eliminating their freedom of choice. This underscores the need to actively design systems that foster sustainability of the marketplace of ideas.

When citizens feel unheard and disenfranchised, their frustration grows to the point where it can spill over into anger and rejection of conventional politics, which then undermines the credibility of the very institutions set up to serve the public's interest. If public discourse is acrimonious, it then impairs the ability to develop sound policies, in turn undermining the efficacy of public institutions. Overall, civic discourse has played a central role in the history of democracies by giving voice to wide-ranging and sometimes startling ideas that are then molded through ongoing dialogue. This has been seen many times in recent American history, from the Civil Rights movement to the Vietnam War protests and more recently from the Occupy movement to the rise of the Tea Party.

Civic discourse is important not only because it provides an avenue for empowerment, but also because it is a tool to convey information necessary for formulating public policy with the idea of promoting common good, a notion that originated over two thousand years ago in the writings of Plato and Aristotle. Plato said, "Injustice causes civil war, hatred, and fighting, while justice brings friendship and a sense of common purpose." (Internet Encyclopedia of Philosophy). While Aristotle defined a political community as a partnership that pursues a common good. Contemporary ethicist, John Rawls, defined common good as "certain general conditions that are...equally to everyone's advantage" (Rawls, 1971, pp. 54-55).

For democracy to be meaningful, civic participation in the public square becomes critical. To enable this requires both the presence of institutional mechanisms for citizens to pursue their ideals and interests (Bollen 1990) and the cultural ability among citizens to discuss and arrive at a meaningful consensus on those interests and ideals (Warren 2001). Putnam (1995) claims that decline in civil society involvement constitute a threat to democracy because, "the health of our public institutions depends, at least in part, on widespread participation in private voluntary groups." There is substantial evidence that citizens with greater

engagement in civic discourse are also more likely to be more engaged in politics (Leighly, 1991; Verba et al. 1995).

Shirky (2011) notes that technology has changed the landscape of democracy by not only changing the ease with which information can be accessed but also improving communications in the public sphere. Technology is not just about circumventing censorships that stifle debate in authoritarian socities but more so about promoting civic discourse. He goes on to say, "As with the printing press, the Internet (digital technology) spreads not just media consumption but media production as well -- it allows people to privately and publicly articulate and debate a welter of conflicting views."

The growth in technology provides both new opportunities and threats to meaningful public engagement. In the past, there were well-established physical forums for discussions, such as a city town hall where citizens met to voice opinions (Roberts 2012). With the advent of the Internet and, more specifically, with the growth of Web 2.0 technologies, such discussions have shifted to the web through the use of blogs, discussions boards, chat rooms, etc., resulting in the emergence of the new field of eParticipation (Sæbø, Rose, & Flak, 2008; Sanford & Rose, 2007).

However, in contrast to rules that exist for traditional discussions, structured rules for discussions are largely nonexistent in the digital world. Many of the initiatives that tried to impose basic rules of debate to online discussions have failed because of either poor implementation or due to the rapid pace at which discussions get reconstituted in the public domain. For example, in parliamentary debate the speakers cannot hide behind anonymity and debates have to adhere to well-structured guidelines (NPDA, 2008). In online forums, the identity of the debaters is usually unknown and very rarely does online forums post rules for making a digital entry. This anonymity has allowed for a plethora of comments and unencumbered opinion making. However, the lack of enforceable rules or a suggested code of conduct curtails the quality of the discussions (Riabacke, Åström, & Grönlund, 2011). There are notable exceptions to this unencumbered opinion making, such as National Public Radio's Community Center Discussion Rules, which outlines the terms that posters will have to agree to before posting any comments (NPR, 2014). However, these rules while reducing profanity and copyright infringements do not necessarily keep the discussions focused on topic.

The goal of this paper is provide a framework that will structure the discussion without inhibiting free expression of ideas. One major issue with existing research on digital civic discourse is the atheoretical nature of the investigation, where the focus is generally limited to only post-hoc evaluation of a website. The guiding research question for this study is: How can a theory driven information system design improve civic discussion? Drawing on the foundations of design research, this research is conducted as an action research project and has two phases. First, is to use existing theories in information systems and civic discourse literature to design a website (with a set of tools) to facilitate civic discussion (Westholm, 2002). Second, is to empirically investigate the actual effects of the underlying theoretical

proposition. In this manuscript, we focus on the first imperative, i.e. to design websites using existing information systems and civic discourse literature that may facilitate civil dialogue.

2.   Civic Discourse – A Short Primer

There is no single accepted definition or conception of civil society. The prevailing conceptions have emphasized an intermediate space between the state and the individual populated by voluntary, self-generating, largely self-supporting social groups independent of the state (Diamond 1994; Brook 1997). The growth of civil society is integral to the rise of democracy and free markets. The relationship between individual and state in a properly functioning civil society is tradeoff between rights and responsibilities. Individuals trade away rights in exchange for protection of the state against violence and treading upon private property. However they retain the right to form social groups to pursue their own ends and to restrain the sovereign state. Capitalism and free market ideals give economic actors access to political power who in turn demand that the rule of law restricts coercive state power preventing states from meddling excessively in the economy while simultaneously ensuring that the state performs its role as regulator of the market (Brook and Frolic 1997).

Peerenboom (2003) notes that in a Western democracy, civil society plays a major role in holding the government accountable and limiting the power of the state. In order to achieve this, interest groups and social groups participate in opinion making and advocate outcomes in the legislative process of making laws. Civil society uses networks and media to monitor powerful sovereign state. In the Habermasean ideal (discussed in Section 4), a deliberative democracy thrives on the opinion making of civil society expressed through reasoned debates in the public domain.

Civil society can then be described as the number of public, private, non-profit and societal institutions 'in which citizens can inform themselves, deliberate and address public problems' (Levine, 2007). In order to have a civil society, civic discourse is essential. Levine (2007) posits three overlapping themes in civic engagement - community participation, political engagement and political voice. Civic engagement encompasses the notions of global citizenship and interdependence. Through civic discourse individuals are empowered as agents of positive social change (Bole and Gordon, 2009).

Civic or civil discourse can then be defined as robust, honest, frank and constructive dialogue and deliberation that seeks to advance the public interest (Brosseau, 2011). Leskes (2013) suggests that civic discourse will require participants to:
- undertake a serious exchange of views;
- focus on the issues rather than on the individual(s) espousing them;
- defend their interpretations using verified information;
- thoughtfully listening to what others say;
- seek the sources of disagreements and points of common purpose;
- embody open-mindedness and a willingness change their minds;

- assume they will need to compromise and are willing to do so;
- treat the ideas of others with respect;
- Avoid violence (physical, emotional, and verbal).

Civic discourse then is more than polite discussion. Civic discourse goes to the heart of being members of a civil society, a democracy, where citizens share a common ideal and are committed to working towards a common good. Civic discourse requires a platform (digital or physical) where all citizens regardless of their status in society have an opportunity to express their views on issues of common concern. The expression of views extends beyond casting ballots to remaining engaged in policy development. To remain engaged proper forums must be developed that provides citizens the ability to express their views free of any coercion or cynical manipulation by sovereign state powers. In civic discourse, the idea is not to win the debate or to express superiority of one's knowledge and position but rather to reach an understanding of the other. Civic discourse is not focused on any one outcome but rather commitment to a process of understanding and empathizing with adversarial views. Civic discourse exemplifies respectful public dialogue in which everyone wins because collectively the civic group has arrived at a better understanding of the convictions of its constituent members. Reaching this level is essential for the continued viability of democracy and free markets. Advancing civic engagement entails promoting transformative dialogue and compelling participation by taking into account the growing interconnectedness that globalization and technology has afforded (Bole and Gordon, 2009).

Civic discourse benefits not only the individual but also society. Civic discourse, which is a subset of the broader concept of civic engagement, has been shown to create positive impact on the social development of adults and adolescents by enhancing educational achievement and social competencies, thus contributing to the greater good (Lerner, 2004 and Levine and Youniss, 2006). Civic discourse traditionally has been conducted via writing or oral communications. The advent of the digital age has taken human interactions to hitherto uncharted territories. Pew Research Center's 2013 Report on Internet and the American Life shows that young adults are more likely to use social media than any other demographic group. Eight in 10 Americans use the internet. A decade ago only 57 percent of Americans used the internet. Eighty-three percent of internet users under the age of 29 use social media compared to only 32 percent in the 65+ age group (Duggan and Brenner, 2013).

Online interactions also have a contagion effect on offline activities (Olson and Olson, 2001). Social media and online conversations facilitate interactions at an unprecedented scale but such facilitation also comes with a cost. The ease with which messages can be posted and the anonymity of the writer helps to generate volume that may lead to the number of messages received exceeding the capacity to process the information. Information overload can be unhealthy for online systems (Jones, Ravid and Rafaeli, 2004). The anonymous nature of the online environment can also lead to anti-social behavior (Kiesler, Siegel and McGuire, 1984).

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3.   Civic Discourse and Behavioral Theory

Behavioral theory can guide systems design that minimizes anti-social behavior and mitigates the structural problems of online discussions. Tversky and Kahneman (1973) introduced the notion that people take short-cuts to decision making, often basing their decisions not on objective information but rather on whatever easily comes to mind. They called this availability heuristics, which suggests that people are prone to error because the heuristics they use are imperfect. The error is mostly related to assigning higher probability to whatever people can recall with the minimal amount of effort. Such heuristic bias leads to another behavioral trait suggested by Kahneman and Tversky (1972) called representativeness, under which people make decisions based on stereotypes. Shefrin (2000) notes that bias, which is a predisposition towards error can be driven by, among other things, overconfidence and confirmation. He defines overconfidence bias as it "pertains to how well people understand their own abilities and the limits of their knowledge." In repeated experiments, people tend to overestimate their ability to make judgments. Even seasoned professionals become susceptible to impulsive decision making.

Behavioral biases are likely to be exasperated in online discussions. Confirmation bias is a tendency to interpret information in a manner that confirms preconceptions and stereotypes, while avoiding interpretations that may contradict or challenge previously held beliefs (Shefrin, 2007). Such biases will compel discussions held under online anonymity to be selective in considering information before providing an opinion.

Prospect theory posits that people value gains and losses differently (Kahneman and Tversky, 1979). The S-shaped value function in prospect theory implies that the utility from a gain is greater than the disutility from a comparable loss. MacKuen, Wolak, Keele and Marcus (2010) suggests that when people find themselves in a recurring disagreement (a situation all too familiar in online discussion boards), people are less inclined to listen to new logic and more likely to fall back upon previously learned behavior. Attitudes towards civic discourse are shaped by the negative emotions a situation evokes.

To propel deliberative citizenship via civic engagement a system design will have to mitigate these behavioral biases. Civic discourse becomes necessary when public policy evokes anxiety and anger. Anxiety is a normal reaction to stress and is caused when people are internally wrestling with understanding a difficult situation. When public policy is unclear, it causes anxiety. However, if public policy is perceived as having wronged or offended someone, then it leads to anger. MacKuen, Wolak, Keele and Marcus (2010) suggest that those experiencing anxiety will search for new information and explore a wide range of perspectives, both oppositional and supportive. However, if public policy evokes anger, then information search is biased towards prior attitudes. Digital systems attempting to foster civic discourse will have to generate a framework that promotes a greater desire to seek new information and provides easy access to a wide range of viewpoints, without overburdening the participant with excessive information.

For democracy to be meaningful, civic participation in the public square is critical. The Great Decision Discussion Program from the Foreign Policy Association is a practical example of civic discourse. Its promotional material notes,"In a Democracy agreement is not essential, but participation is." Great Decisions is America's largest discussion program on world affairs. The program model involves reading the Great Decisions Briefing Book and meeting in a Discussion Group to discuss the most critical global issues facing America today (Foreign Policy Association). To enable such free spirited and grassroots empowered discussion requires the presence of institutional mechanisms that citizens can use pursue their interests (Bollen 1990). Among the most influential ideas that has aided the development civic discourse has been the theory of communicative action by Habermas, (1984).

4.   Habermas' Theory of Communicative Action

Unlike traditional theories, Jurgen Habermas' works on the theory of communicative action takes a critical theory view regarding civic discourse. Critical theory is a social theory that aims at critiquing and changing society as a whole. This stands in contrast to traditional theory, where the emphasis in only to understanding or explaining societal behavior. Communicative action theory argues that the most fundamental characteristic of human beings is their ability to coordinate actions through language and communication (Habermas, 1984). The primary function of communication is the construction of understanding and agreement about shared activities. Mingers and Walsham (2010) notes, "Humans do, of course, engage in other activity: for example purposive instrumental action in solving a problem or reaching a goal, or strategic action where communication is used to achieve personal ends through some form of deception or control. But even in this latter case, understanding is a necessary prior condition." The Habermasian worldview is to arrive at a consensus based on rational discussions as opposed to ideological dogma, religious or political. Rational discussion requires that any claims to a particular view has have the freedom to be challenged in a manner that the process leads to "ideal speech conditions."

Habermas describes the rationality of communication from three perspectives, each of which constitutes a world of knowledge (Outhwaite, 1996). These perspectives are (I) my world of internal nature, i.e. the personal or subjective world that is totally of the experience to which the speaker has privileged access; (ii) outer world of society, i.e., the social world. The totality of all legitimately regulated interpersonal relations; and, (iii) the world of external nature, i.e., the technical world of material fact and the totality of all entities about which objectively true statements are possible.

Within information systems (IS), a few studies have used the communication theory to design information systems. For example, in terms of IS design and planning, Córdoba and colleagues developed a critically based methodology for participative IS planning in a Columbian university (Córdoba, 2007; Córdoba & Midgley, 2005); Sheffield (2004) designed a system for GSS-enabled meetings based on the ideal speech situation; and Ojelanki K. Ngwenyama and Lyytinen (1997) made the case for

CST as a basis for computer supported group working; Marlei Pozzebon, Titah, and Pinsonneault (2006) explained the prevalence of IT fads and fashions as a result of the continual pressure for rhetorical closure in IT negotiations; and Cecez-Kecmanovic, Webb, and Taylor (1999) studied web-based teaching and learning systems. In all cases, there was ample support for using tenants of the theory for improving outcomes. However, in each case, an overarching theory was needed. This is discussed next.
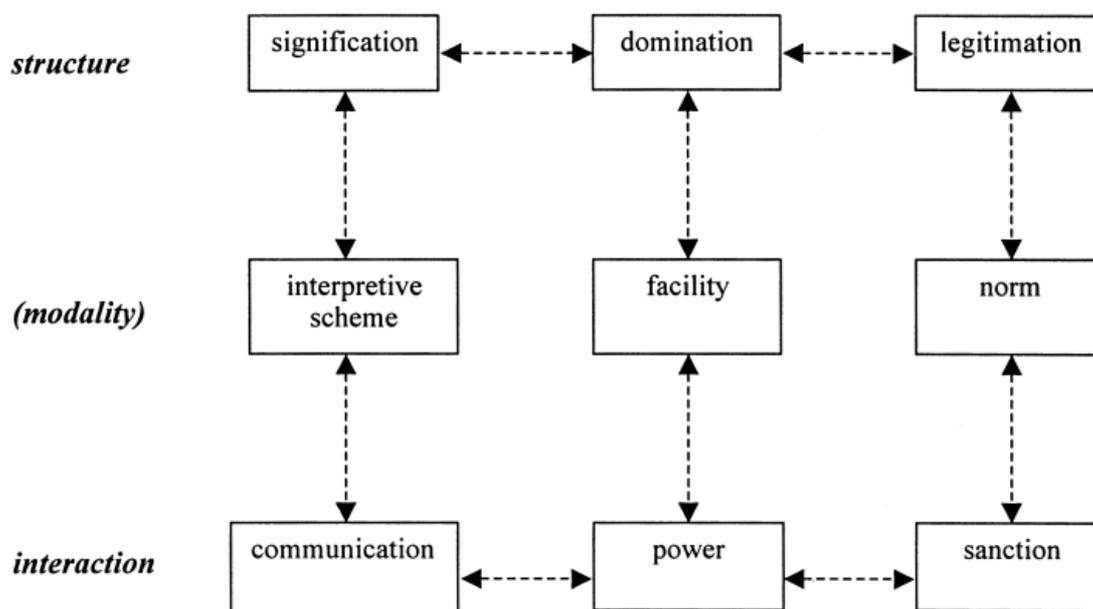
5.   Theoretical Foundations for Digital Civic Discourse

Structuration theory attempts to address the formation of social structures in a society (Giddens, 1984). Structuration theory finds its home in sociology literature, although it has had a profound impact on IS (Orlikowski, 2000; Poole & DeSanctis, 2004; Rose, 1998) and management research (Pozzebon, 2004). The relationship between an individual and the society is of central concern in this theory. However, structuration theory was conceptualized before the massive use of internet technologies in the society and thus, excludes them.

To address this limitation, Bostrom and his colleges recently suggested the use of Adaptive Structuration Theory (AST) as a meta-theory, encompassing both the technology as well as the major tenants of the structuration theory (Bostrom, Gupta, & Thomas, 2009). AST argues that the influence of these IS objective structures is moderated by the actions of the actors and their moves (Barley, 1986; DeSanctis & Jackson, 1994; DeSanctis & Poole, 1994; Orlikowski, 2000). As a meta-theory, AST provides an ontological framework of constructs, assumptions and arguments. In addition, AST allows for deterministic hypothesis based on technology structures.

Bostrom et al. (2009) identifies five critical requirements for designing an information system using AST : 1) Context of the information systems design, 2) identification of the actors, 3) identification of the underlying spirit, 4) identification of structural dimensions based on a theory, and 5) Identification of the structure's features. The description of a system is a combination of these structural features and actors. As discussed earlier, the context of this study is the development of a civic discourse system. The end users of such a system would be the citizen who is stakeholders on a particular topic. The underlying spirit for the design is drawn from the major tenants of structuration theory as well as other literature in civic discourse. Critical to the design of the information system is the discussion on structural dimensions and structural features, which is discussed next.

6.   Structural Dimensions And Features

structure	signification	⟷	domination	⟷	legitimation
(modality)	interpretive scheme		facility		norm
interaction	communication	⟷	power	⟷	sanction

Source: Adapted from Giddens (1984) p. 29

Figure 1: The Interaction of Human Action and Institutional Structures

AST as a meta-theory requires a secondary theory to deduce the structural dimensions that should be part of a system (Bostrom et al., 2009). As mentioned earlier, among the most widely used theories to understand society is the Structuration Theory. While most studies have used these secondary theories to explain or examine an existing phenomenon (Gupta & Bostrom, 2009), this is the first study that uses the AST meta-theory to design an information system.

Structuration theory outlines three structural sets: structures of signification, structures of domination and structures of legitimating (see figure 1). The structures relating to signification focus on the production of meaning (e.g. a person with a white coat in the hospital has the role of a doctor). Thus is done through the use of interpretive schemes, which are standardized, shared stocks of knowledge that humans draw on to interpret behaviors and events, hence achieving meaningful interaction. The second structural set, i.e., domination outlines the perception of power (e.g. a police officers' uniform enable them to fine somebody who broke the speed limit). It is interpreted through the external resources to facilitate the deployment of power. Finally, the third set of structures relate to legitimating or societal norms (e.g. formal clothing during most interviews). These are rules governing sanctioned or appropriate conduct and they define the legitimacy of interaction within a setting's moral character.

While structuration theory implies that shared meaning, power and moral sanction are generated in a society over time, AST implies that designers, through the use of structural features, can actively influence the structural dimensions. We draw upon

Group Support Systems, Civic Discourse, Education and Crowd sourcing literature to outline some of the structural features for each of these dimensions. Table 1 summarizes these. Each structural dimension is discussed next. Subsequently, we build an information system incorporating these structural features.

Table 1: Structural dimensions and technology features

Structural Dimension	Habermas Criteria	Key Principles	Structural Features to be captured using technology
Signification	Objective truth	Symbolic order Modes of discourse	Facts Increased Participation Closing the loop
Domination	Personal attributes or sincerity	Political and civic institutions Individual power	High Model Prestige Invited Participation Opinion Makers Polling
Legitimation	Inter-personal relations and rules	Rules of participation	Agenda Drive Moderation Ranking

6.1. Signification: Structural Features And Hypothesis

The signification structural dimension focuses on two key principles: Symbolic order and modes of disclosure. From an IT perspective, these principles on presentation of information come from the theory of coding as well as from the theory of media richness (Daft & Lengel, 1986).

Symbolic order focuses on the content of the information presented and level of entropy/uncertainty, i.e. the scope of information for the chosen context. This matches the Habermasian view for civic discourse regarding the importance of facts, which are considered as fixed, given, unaltered and independent of any theory. This relates to the third type of knowledge perspective that contributes to the rationality of communication. This knowledge about the external world is generally divided in various calories an concepts (Habermas, 1984).

Modes of discourse are mediums through which information can be shared and meaning generated. This links to the idea of recourses aiding in communication in the Habarmasian view for civic discourse (Flynn, 2004 #4655). Contemporary information systems have the ability to not only summarize and collect these facts, but also display them prominently and visually. The goal of visualization is to aid our understanding of data by leveraging the human visual systems highly turned ability to see patterns, spot trends and identify outliners. Well-designed visual representations can replace cognitive calculations with simple perceptual inferences and improve comprehension, memory and decision making. By making data more accessible and appealing, visual representations may also help engage more diverse audiences in exploration and analysis (Heer, Bostock, & Ogievetsky, 2010). Many

types of information visualsations exists. One such commonly used example is info graphic. An info graphic is defined as a visualization of data or ideas that tries to convey complex information to an audience in a manner that can be quickly consumed and easily understood (Smiciklas, 2012).

According to AST, the structure of signification can be manipulated using information systems. Thus, assuming that the website is well-designed and the above mentioned structural features do indeed increase the level of signification (see Table 1), it should facilitate the generation of shared meaning; i.e., the creation of an overlapping consensus. Thus, the key hypothesis concerning the structures of signification is the following

> *H1: The greater the perception of signification, the greater the shared meaning arrived at.*

6.2. Domination: Structural Features And Hypothesis

The structural dimension of domination focuses on the perceived difference in resource control. It refers to resources as a method to manipulate dimension. According to structuration theory, "authoritative resources" are resources that influence other people, while "allocative resources" are resources that allow for control over material objects.

Habermas (1984) argues that knowledge claims in the personal world are validated by personal truthfulness or sincerity of authoritative resources. This claim is also supported in Education research which has focused on instructor model prestige and competence as one of the primary determinants learning success (Schunk, 2004). More recently, IS researches have also demonstrated how information systems can be built to show high model prestige and competence and lead to better learning outcomes (Gupta & Bostrom, 2013). Similar discussions exists in the influence of individual power in information systems (Jasperson et al., 2002). The reason for this impact is change in the participant perception of domination, resulting in greater following and confidence in the underlying information system (Gupta & Bostrom, 2009). Examples of authoritative resources are using political and civil institution of prestige to validate and advertise the usage of such information systems (see Table 1)

Allocative resources refer to the basis by which resources are allocated within a community. Both are instrumental in establishing the nature of power in a society. Research in the area of group support systems has shown that the ability to simultaneously participate, anonymity, telepresense, self-directivity and personalization provided by information systems has a positive impact on decision making through the enhanced perception of allocative resources (Fjermestad & Hiltz, 1998) (see Table 1).

The enhanced nature of authoritative and allocative recourses represents the internal knowledge that is the experience to which the participant has access.

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Together, these reduce the perception of domination in enhance the perception of power that an individual participant feels. Thus, the key hypothesis is

H2: The lower the perception of domination, the more people will feel that they exercised their power.

6.3. Legitimation: Structural Features And Hypothesis

Structures of legitimation deal with the rules and structure implied in a social system. This is the corner stone of civic discussion. The need for civility in discussions has been well researched and social norms facilitate such discussions and have lead to the creation of rules like Roberts rules for parliamentary procedures. The legitiation dimension, from a Habermasian perspective, deals with norms with which one deals with the outer world. Habermas suggests that knowledge claims in the social world are validated by rightness; i.e., having rules for inter-personal relationships (Habermas, 1984).

While rules for face-to-face discussion have evolved over the years and are well established in society, the advent of the internet and more specifically Web 2.0 (the free, user created web (Mingers & Walsham, 2010)) has created a unstructured, free for all environment for web discussions. While this has encouraged more participation, critiques have argued that this has lead to the dilation of discussion quality. However, in this section, we argue for the structuration potential of technology i.e. the ability to embed rules of discussion in information systems that can enhance discussion (Bostrom et al., 2009). Such structuring potential has been shown brainstorming settings using groups support systems (Dennis, Valacich, Connolly, & Wynne, 1996). Other dimensions of restrictiveness, flexibility and synchronicity also help in enhancing the pececpetion of education (Fjermestad & Hiltz, 1998) (see Table 1).

Although much of that research occurs in small groups and organizational settings, the structural features can be intuitively extended to a larger civic discourse system. These structural dimensions mentioned features provides the participants with an ability to rank discussion on civility and contribution through community policing. The key hypothesis that drives the design is

H3: An increase in the structures of legitiation will have a positive influence on civility of discussions.

7. Conclusion

Modern democracies place an onus on its citizens to become engaged in governance. With voting comes the responsibility for engaging in an exchange of ideas in an open market, often called civic discourse in a marketplace of ideas. Civic discourse is defined as robust, honest, frank and constructive dialogue and deliberation that seeks to advance the public interest. Civic discourse is a means to conveying information necessary for formulating public policy with the idea of promoting common good.

With the advent of digital platforms, the centuries old concept of civic discourse is undergoing rapid change. However, these changes are generally ad-hoc and less driven by theoretical frameworks. This paper applies the critical theory perspective to technology arguing that information systems are not just neutral systems which should be studied after they event has occurred. Instead, this paper focuses on developing a theory that will then motivate the designing of a digital platform for conducting civic discourse. The approach taken in this paper is to outline the tenant of the theory in use and breaking it down into structural features and dimensions. These then provide guidelines for design and subsequent testing (Bostrom et al., 2009).

The core contribution of the paper is to outline the theoretical framework that outlines structural dimensions and features that influence civic discourse and how they can be influenced using information systems. Specially, three structural dimensions were outlined – signification, domination, and legitiation. The paper outlines how each one of these influences discourse in different ways and also provides examples on which technology features can influence each of these dimensions (see Table 1). Most importantly, testable hypotheses for each of these structural dimensions are provided.

The obvious next step in testing the hypothesis above is to build a website that will incorporate the theoretical elements discussed in this paper. The initial website will be done as a pilot project in conjunction with the major social stakeholders in a major US city. The draft layout of the website is presented in Appendix 1. The website design incorporates structures of signification, domination and legitiation discussed above.

In addition, Habermas (1984) outlines stages in which civic discourses need to happen. The first is moral - questions that require solutions in the interest of all, such as tax policy. The second is ethical - questions whose answers may be different among different constituent groups, such as immigration policy. And finally consensus building - arriving at a solution that balances the needs of competing groups, often through a bargaining process. Mingers and Walsham (2010) notes that such deliberative democracy is happening today, not only in the traditional institutions of law and politics, but increasingly in a third sector where community groups, advocacy institutions, trade associations, and lobbyists are interacting to influence the economy and the state. The internet can help to facilitate these attempted transformations and continues to be an intriguing area of future research. The guidelines emerging out of this paper should contribute to the broader development of digital civic structures.

ENDNOTES

[1] Abrams v. United States, 250 U.S. 616, 630 (1919) (Holmes, J., dissenting). Justice Holmes used the phrase "free trade in ideas," not the phrase "marketplace of ideas." Lamont v. Postmaster Gen., 381 U.S. 301, 308 (1965) (Brennan, J., concurring) ("It would be a barren marketplace of ideas that had only sellers and no buyers.")

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Appendix 1

One Prayer (or something): A One Jax Project on Civil Discourse

About the project – very briefly -

Polls and Polling data

+ project dates

Video 1

Video 2

Fact based infograph

+ Newspaper resources like news clippings.

Discussion board sorter by quality and time
Scroll bar only for discussion area