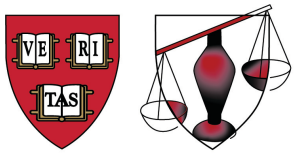

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Why We Engage
How Theories of Human Behavior Contribute to Our Understanding of Civic Engagement in a Digital Era

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Introduction

As digital communication technologies have evolved over the past few decades, the convergence of network structure and accessibility with hardware and software advances has allowed individuals to interact in various, even contradictory, ways. They can explore, hide, reach out, evaluate, connect, negotiate, exchange, and coordinate to a greater degree than ever before. Furthermore, this has translated to an ever-increasing number of users interacting with information in unprecedented ways and, due to device portability, in totally new physical locations. Twitter, Facebook, and Foursquare update each other simultaneously across application platforms with near-real time photos and impressions of places; mobile exercise applications allow users to track their own movements as well as view where others in their geographic vicinity went running; Yelp users can read selective reviews from social network friends and strangers in their community on a specific restaurant; and Facebook friends can see what their peers bought, listened to, and read - from anywhere they are able to access the Internet. Most of these apps update across platforms enabling both maximum reach across a user's social group as well as a highly selective direction of information to a subset of their social network.

Just as the rapidly evolving landscape of connectivity and communications technology is transforming the individual's experience of the social sphere, what it means to participate in civic life is also changing, both in how people do it and how it is measured. Civic engagement includes all the ways in which individuals attend to the concerns of public life, how one learns about and participates in all of the issues and contexts beyond one's immediate private or intimate sphere. New technologies and corresponding social practices, from social media to mobile reporting, are providing different ways to record, share, and amplify that attentiveness.

Media objects or tools that impact civic life can be understood within two broad types: those designed specifically with the purpose of community engagement in mind (for instance, a digital game for local planning or an app to give feedback to city council) or generic tools that are subsequently appropriated for engaging a community (such as Twitter or Facebook's role in the Arab Spring or London riots). Moreover, these tools can mediate any number of relationships between or among citizens, local organizations, or government institutions. Digitally mediated civic engagement runs the gamut of phenomena from organizing physical protests using social media (e.g., Occupy), to using digital tools to hack institutions (e.g., Anonymous), to using city-produced mobile applications to access and coproduce government services, to using digital platforms for deliberating. Rather than try to identify what civic media tools *look like* in the midst of such an array of possibilities (by focusing on in depth examples or case studies), going forward we will instead focus on how digital tools expand the context of civic life and motivations for engagement, and what participating in civic life looks like in a digital era.

We present this literature review as a means of exploring the intersection of theories of human behavior with the motivations for and benefits of engaging in civic life. We bring together literature from behavioral economics, sociology, psychology and communication studies to reveal how civic actors, institutions, and decision-making processes have been traditionally understood, and how emerging media tools and practices are forcing their reconsideration.

Foundations of civic engagement.

The study of civic engagement has a purposefully broad and varied area of inquiry that is inclusive of the elements—any and all—that are valuable or necessary for participation in public life. We may understand them within three major categories comprising the ability to (1) **acquire and process information** relevant to formulating opinions about civic matters, (2) **voice and debate opinions and beliefs** related to civic life within communities or publics, and (3) **take action** in concert and/or tension with social institutions such as political parties, government, corporations, or community groups. Although these categorized elements are often understood as a progression that eventually leads to the coveted outcome of *taking action*, we address each one as both process and outcome and seek to understand the qualitative changes prompted by their intersection with mediating technologies.

Ability to acquire and process information.

The ready flow of information has been a fundamental element for the notion of what it means to be civically engaged since Plato and Aristotle's discussions on the importance of civic education to the just polity. Today, it remains a normatively held good that citizens be educated about the processes and organization of democracy, be up to date on current events, and be exposed to a variety of ideological perspectives—so that they are both adequately informed and suitable monitors of information. Since the publication of Lippmann's 1922 *Public Opinion*, these ideas have served as a benchmark for the engaged citizen. One would think that the

proliferation of media channels over the last several decades would have had a significant impact on these indicators; but, in fact, in the United States, basic political knowledge (such as an awareness of political leaders or major news events) has changed only minimally since the 1980s (The Pew Research Center for People & the Press, 2007). Other studies, however, have shown that digital media in general have resulted in benefits in knowledge retention (Moy, Xenos, & Hess, 2005; Prior, 2007) and feelings of solidarity with a community of makers (Jenkins, 2006). With the complexity of this changing information environment around civic education, the formal-, and informal-pedagogy of civic engagement has become an increasingly important field of practice and study (Campbell, Levinson, & Hess, 2012; Levine, 2007).

Voice and debate opinions and beliefs.

For theorists of deliberative democracy, information is most valuable when it can be put to use in voicing and discussing opinions in a community or public (Cohen, 1989; Dahl, 1998; Habermas, 1984). Deliberation is defined by the ability to express one's public voice, as well as the notion that voices be engaged in open, rational, and critical debate. Deliberation is both an act that can be used to spur future action (Cho, Shah, McLeod, McLeod, Scholl, & Gotlieb, 2009; Sotirovic & McLeod, 2001) and function as an end in itself (Kaid, McKinney, & Tedesco, 2007; Rosenstone & Hansen, 1993). While deliberation often occurs within institutions—legislative bodies or public meetings that are tied to local government – it also occurs within extra-institutional sites such as the "*associations, networks, and organizations* [within which] *an anonymous 'public conversation' results*" (Benhabib, 1996, pp. 73-74, emphasis original). Accordingly, public deliberation extends well beyond official governmental or institutional channels and official sanctioned topics (Fraser N. , 1993). Deliberative practices, broadly understood, can include discussions within or among individual citizens in a community organization, online social network, open forum, or a public meeting (McLeod, Scheufele, & Moy, 1999). Emerging digital points of access are changing the shape and porosity of public deliberation.

Taking action.

While Nie, Verba, and Kim (1971) set out a definition of political action that focuses on the direct petitioning of government agencies or legislative bodies, broader efforts at mobilizing also fall into the category of activism. From voting, donating money to advocacy groups, contacting local representatives, and reporting issues in a community, the assessment of the levels of actions (and their change over time) has been well documented (Zukin, 2006). On a more social level, many investigations into direct action are grouped under the banner of social movement theory (Rosenstone & Hansen, 1993). They focus on the organizational elements of the groups, networks, or crowd mobilization, the specific tactics employed to reach goals, such as boycotts or buycotts, use of online or offline social relationships, or direct petitions of government. Though it is more controlled or "managed" (Howard, 2006) than social movements, participation in electoral campaigns or party politics—from simplistic and low-cost actions such

as voting to deeper actions like volunteering to canvas for a campaign—is also a significant area of research.[1]

Though these practices of civic engagement have been studied by a variety of disciplines including urban planning, psychology, and political science among others, the influence of digital and networked media has forced their reconsideration. The acquisition of information, the space of deliberation, and the process whereby citizens take action have been transformed or augmented by a new media landscape that has fundamentally transformed how communication happens in public life. We begin to understand these phenomena by analyzing the contemporary technology landscape and how it has transformed the platform for interpersonal and group communication. We then look to the motivations to engage in civic life, and the specific benefits to individuals and groups. The literature delves into acts of engagement using three primary perspectives: trust, empowerment, and action. The bulk of this document examines how these components of civic engagement have been treated in the various disciplines we have reviewed. We then turn to an analysis of the concept of community and how the fundamental shifting of society to accommodate the pervasiveness of digital networks has forced a reconsideration of the political actor, be it a community, group, or individual. Finally, we offer a critique of how mediated civic engagement has been characterized through the lens of efficiency and suggest the need for a field of inquiry that would assure a more nuanced understanding of the contemporary civic landscape.

Landscape of Civic Technologies

The technologies that impact how people engage in civic life have evolved rapidly. Broadly speaking, the conjecture that hardware capabilities would double every two years (Moore, 1965), has more or less held true and included corollaries for processing speed, memory capacity, sensor capability and pixel size (Liddle, 2006; Myhrvold, 2006). While a gap exists between the use of emerging technologies for commercial and civic use, these tools now mediate practices in all areas of life. A paltry four years passed between Twitter's conception and the events of the "Arab Spring" that became known as the "Twitter revolution" and resulted in massive civil uprisings, major protests, an ongoing civil war, and the ousting of four rulers across North Africa and the Middle East. With 56% (Brenner, 2013) of the U.S. public accessing the mobile Internet in 2013, applications that enable citizens to interact with local municipal government or to connect with neighbors have become increasingly popular.

Several scholars have identified specific social affordances of new technologies (Klopfer, Squire, & Jenkins, 2002; Wellman, et al., 2003) that lend themselves to greater participation in civic life. Peer-to-peer digital platforms can amplify social inclinations to cooperate over assumed impulses of self-interest (Benkler, 2006; 2011; Glaeser, 2011). They also can provide

[1] Investigation into participation related to electoral campaigns focuses on whether certain campaign environments—messages, incumbency, publicity, and so on—can influence actions like choice of candidate, turnout, volunteering rates

opportunities to prioritize play over work, where the act of civic participation is not laborious or tedious, but in fact opens up a space of possibility that is itself meaningful. The education scholar Eva Nwokah (2010) points out that play frequently includes sharing and exchange, negotiation, and intellectual and creative collaboration through emotion and action. Play also provides a contained microcosm in which the range of human nature is exemplified (Huizinga, 1955). The confluence of social network technologies with hardware advances that are portable, interactive, context sensitive, connected, and individual (Klopfer & Squire, 2008) has afforded the possibility of a playful modality of civic engagement. Individuals now have the ability to come together to learn, cooperate and take action in unprecedented ways (Ito, 2012). Some of this literature focuses on the specific affordances of games (Gordon & Baldwin-Philippi, 2013; Gordon & Schirra, 2011; Kahne, Middaugh, & Evans, 2008; Ruiz, Stokes, & Watson, 2011), but play itself, outside of its structure in games, has the most direct bearing on mediated civic engagement.

Related to play, but on a more fundamental level, digital connectivity has increased opportunities for *personalization* via the ability to control the flow of information, for precisely strategizing what information or communications are presented to other users and when. This personal yet inherently connected state, in which individuals can dictate what they want to look at and where while largely remaining in public, is what Hampton and Gupta (2008) call "public privatism." Wireless portability (including hardware and network accessibility) is key in affording this type of situated personalization. Wellman et al. (2003) suggest that the ability to access the Internet from anywhere, at anytime leads to communication being founded in place-to-place interaction rather than person-to-person interaction, as the ability to communicate is no longer tied to a specific location but the variable context of the user.

Rather than rendering location obsolete, however, digital tools mediate our understanding of space and representations of geography. Such hyper-experiential locative technologies permit the user the ability to record and display location relevant information to their peers. This evokes Gordon and de Souza e Silva's (2011) concept of net locality that suggests that physical localities and digital networks can be mutually influential, and Graham and Zook's (2013) suggestion that context awareness represents a critical element in terms of the advances it affords. De Souza e Silva and Frith (2010) discuss the importance and implications of such embedded locative metadata in broader issues of privacy, surveillance, and social exclusion. Despite the "network divide," which frequently manifests in the socio-economic gap between users and non-users, *globalized connectivity* has resulted in more equitable access and lowered barrier to entry to public discourse platforms (Baym & Boyd, 2012; Best & Kreuger, 2005; Delli Carpini & Keeter, 2002; Jung, Kim, & de Zuniga, 2011).

Alongside these changes in the landscape of digital media come related shifts in the motivations for, and elements of, civic engagement. Although rational choice models have long been the purview of political science, behavioralist theories are seldom linked to studies of civic engagement outside of the sub-field of game-theory. By contextualizing behavioralist studies within a more socio-technical, contingent understanding of how civil society works, the

following section illuminates how particular theories of human-computer-interaction and behavioralism can explain the underlying aspects of and motivations for engagement.

Motivations and Components of Civic Engagement

Most of the literature treats civic engagement as an inherently positive action. Its benefits are described in two distinct ways: the nature of the reward and the nature of its distribution throughout society. They tend to be presented independently of each other in the economics and political action literature, and in the few instances where both are acknowledged together the distinction between them is rarely made. As the nature of motivation becomes increasingly complicated by the connectivity affordances of contemporary media platforms, understanding the relationships between these two qualities can only help us to understand the nuances of civic life.

Theories of motivation based in the fields of organizational behavior, classical economics, and political psychology have historically been based on the assumption that humans are *rational actors* - that their decision-making behaviors are predominantly responding to the mechanisms and psychology of selfish incentives whereby the common good is achieved by means of free market behavior (Renwick & Maher, 2013). This idea persists in contemporary *incentive theory* (Clark & Wilson, 1961), *rational choice theory* (Renwick & Maher, 2013) and *social exchange theory* (Homans, 1961). Social exchange theory provides a slightly more nuanced description of motivation: Homans' (1958) original proposition suggests social change is based in human relationships formed by the use of a subjective cost-benefit analysis and the comparison of alternatives. His theory is comprised of three tenets: the success proposition (when one finds they are rewarded for their actions, they tend to repeat the action), the stimulus proposition (the more often a particular stimulus has resulted in a reward in the past, the more likely it is that a person will respond to it), and the deprivation-satiation proposition (the more often in the recent past a person has received a particular reward, the less valuable any further unit of that reward becomes). These theories all have inherent limitations, however, from an individual's limited computational capacity for weighing alternatives, their selective and incomplete information acquisition behaviors, their predisposition for "satisficing," a *portmanteau* of satisfy and suffice, and the inherently limited rationality of their decision-making processes (independent from the rationality of the decision outcome) (Monroe, 1991). By the logic put forth by these and similar theories, individuals should respond first to selective benefits over collective benefits. The affordances of new, social, ubiquitous, media platforms, however, have both changed the predictive role of the rational actor and provided a venue for individuals to exhibit behavior that does not fall into the traditional model of the rational actor. The use of Twitter during the events of the Arab Spring, for example, demonstrates a motivation that cannot be explained solely by a coordination of rational actors. The emergence of this media landscape may be the first venue for citizens to actually express and record these not-necessarily-rational behaviors at a large scale.

Traditional literature from the field of political communication (Clark & Wilson, 1961; Rosenstone & Hansen, 1993; Wilson, 1973) categorizes such outcomes of engagement as mutually exclusive *material*, *solidarity*, or *purposive* benefits. In their seminal paper on incentive systems, Clark and Wilson (1961) describe material benefits as the *tangible* rewards that have either an intrinsic monetary value, or are easily transferable into a form that does. This definition aligns with the description of "economic capital" put forth most prominently in the sociology literature by Pierre Bourdieu (1984): "[capital]...which is immediately and directly convertible into money and may be institutionalized in the form of property rights." (p. 243) Conversely, both solidarity and purposive benefits are considered *intangible* rewards. Solidarity benefits are derived from the connections between people, but are independent of the goals of the association (e.g., in the development of status or friendship) and, according to Clark and Wilson (1961), are therefore not transparently indexical to monetary gain. Bourdieu lays out a similar description for the concept of social capital: "...made up of social obligations ('connections')" (p. 243), but more readily acknowledges the translation of such social connections into economic gains. Finally, purposive benefits exist in the perceived *intrinsic* rewards of participation, in which pleasure derived from the act of engagement exists entirely within the individual. As the value taken from purposive benefits is, by definition, endogenous (that is, entirely internal in origin), there is widespread agreement that purposive benefits are unrelated to economic gains.

By comparison, theories describing the distribution of benefits throughout society seem to be inspired by the concept of "public" and "private" goods from economics (Davis & Whinston, 1967; Olson, 1965; Samuelson, 2013). In the field of political action these concepts are referred to as *collective* and *selective* rewards. Rosenstone and Hansen (1993) provide thorough descriptions of traditional collective and selective rewards - where collective rewards benefit every member of a group or community (regardless of whether they participate) and selective rewards provide benefits *exclusively* to the members that participate. Collective and selective rewards can be of material, solidarity or purposive forms; however, as the emergent affordances of mediated engagement affect how material, solidarity, and purposive value is perceived, the role and nature of rewards need to be rethought. In particular, as social capital becomes increasingly important and more readily transferable into economic capital, the motivational role of solidarity benefits may be evolving to accommodate new conceptions of selective and collective benefits as the rationale for engagement.

The dominance of human capital in the Industrial Age was tightly bound with material benefits (Rheingold, 2003). The rise of social capital in the Information Age has expanded our traditional conception of material benefit to include social affordances (like an individual's centrality in a social network) and has advanced solidarity benefits as a viable alternative to material benefits. Metcalfe's Law dictates that the value of a network is proportional to the square of the number of its nodes (users) (Hendler & Golbeck, 2008; Shapiro & Varian, 1998). While this conjecture (like any theory) is oversimplified and therefore susceptible to failure, it is frequently cited in business management literature and successfully highlights the growing market value of social networks. As social benefits increase in value, we see our traditional

conception of behavioral motivation – based on a rational actor seeking selective, material rewards – being reworked to accommodate different *social* benefits.

Just as new technologies are impacting the context in which citizens can take action, they are also transforming the basic mechanics with which one seeks those benefits: *trust*, *empowerment* and *action*. The following sections will explore how each of these components have been addressed in the literature and how each might be reconsidered in light of the contemporary technology landscape.

Trust.

To meaningfully engage in civic life, an individual needs first to trust in the group, collective or institution. The role of trust in a civic context seems to be most salient where the individual is assessing the fairness of a decision outcome or decision-making process. Terwel et al. (2010) show that people will infer trustworthiness in decision making institutions based on the perceived fairness of the decision making process employed, in particular where there is little information about the trustworthiness of the decision makers or institution. At a certain level, the prevalence of contemporary peer-to-peer communication paradigms has set a precedent for citizens to be able to communicate (or feel like they are communicating) with decision makers – i.e. anyone can tweet @barackobama. Studies have shown that this type of perceived personalization substantially contributes to building trust in institutions (Lupia & Sin, 2003; Rosenstone & Hansen, 1993). Terwel et al.'s (2010) experiment also supports the assertion that group decision making procedures are perceived to be "more trustworthy" when there exists a mechanism allowing individuals to voice their opinions in the decision making process. As summarized by Tyler et al. (1996), the perception of trust in a decision making entity leads people to be more likely to remain a member of the group and more willing to help the group, even at a cost to themselves. This principle underlies the concept of a "virtuous cycle" from the field of economics and in particular management, wherein even though an individual expends some initial effort for the good of the group, they are ultimately even more capable of achieving their objectives as a collective in a reinforcing cycle. In order to maintain trust in any process, a sense of distributive justice or assessment of a favorable cost/benefit ratio (Homans, 1961) must be preserved in some regard, even as the benefits can be assessed in any number of ways.

As individuals engage in political processes, their experience reinforces their sense that the system is responsive (Valentino, Gregorowicz, & Groendyk, 2008) and (ideally) just, building trust and theoretically perpetuating cycles of engagement and participation. Historically, our understanding of economic behavior was tied to the concept of distributive justice, where behavior is predicated on notions of a rational actor whose primary interest was in the favorable outcome of a decision-making process (Cropranzo & Folger, 1989). Contemporary scholars have observed that the role of perceived justice in satisfaction with a decision and ultimately the development of external efficacy may be more nuanced than expected, not exclusively comprised of distributive justice but procedural and interactional justice as well (Cropranzo & Folger, 1989). Thibaut and Walker's theory (1975) suggests that an individual's perception of their direct and indirect control over the decision-making processes lies at the core of perceived

procedural justice. Subsequent research has suggested that there are additional non-control related issues (including neutrality of the decision-making process, trust in a representative, third party, and the social status recognition of a decision making process (Tyler, 1989; Tyler, Degoey, & Smith, 1996)), however, they tend to be more dependent on the type of dispute or judgment.

The importance of perceived fairness of interpersonal treatment between individuals and decision-makers was first recognized in the organizational behavior literature by Bies and Moag (1986). Most conceptions of interactional justice appear to be contingent on interpersonal dignity and respect as well as the degree to which the decision maker is forthcoming with important and relevant information (Brockner & Wiesenfeld, 1996). This literature is underpinned by equity theory whereby humans have a natural desire to engage in equitable relationships (Adams, 1965). Certain designed affordances of the new media landscape – the individuals' ability to connect directly with decision makers on a personal level, tools that provide timely and specific feedback – open an area of opportunity for exploration and intervention that augment perceived interactional fairness. A number of empirical studies within the same field found that when individuals perceive interpersonal fairness, they tend to have better relationships with decision makers, they tend to be more productive, and they tend to exhibit more helpful "citizenship behaviors" (Malatesta & Byrne, 1997; Masterson, Lewis, Goldman, & Taylor, 2000; Moorman, 1991).

While the findings of these studies are useful and predictive of the importance of interactional justice in the civic realm, it is important to point out that these studies were conducted in the *workplace.* For example, Moorman's (1991) study uses Organ's (1988) model for organizational citizenship behavior that is defined "as work-related behaviors that are discretionary, not related to the formal organizational reward system, and, in aggregate, promote the functioning of the organization" (Moorman, 1991, p. 845) and includes measures of altruism, courtesy, sportsmanship, conscientiousness, and civic virtue. At first glance these seem like reasonable metrics for understanding engagement at the community level, however the scale and nature of reward in the workplace may be somewhat different than for the community, and may affect the applicability of such metrics. In the workplace, employees frequently know each other and come together around a very specific objective, task, or mission statement forming strong (if typically small) communities of interest and circumstance. Motivational rewards in the work environment also tend to be quite different as there is more of an emphasis on selective than collective (eg. salary, promotion, etc.) benefits.

Trust is similarly important to the establishment of community ties, as described in Tyler's (1989) proposed group-value model. In this model trust is a critical component in the development of membership and loyalty in a social group (be it at an interpersonal or organizational level) and provides a popular explanation for understanding why procedural justice is important in the decision making process (Lind & Tyler, 1988; Tyler, Degoey, & Smith, 1996; Tyler & Lind, 1992). The group value model focuses on the identity-relevant information found in the relationships between decision-making actors (be they individuals or

institutions) by addressing both the degree to which decision-making procedures reflect respect of the individual, and the degree to which they feel pride in their community. It is widely found in empirical organizational behavior and social psychology studies that people who perceive procedural fairness are more likely to accept the decision outcomes, (Folger & Konovsky, 1989; Singer, 1990) are more likely to remain a member of - and feel connected to - a group, more willing to comply with the rules and norms of a group, and more willing to advance the group's interests at a cost to themselves (Tyler, 1990; Tyler & Degoey, 1995; Tyler, Degoey, & Smith, 1996).

The existing literature frames the ways in which individuals trust in groups or institutions and the reasons they are motivated to continue to participate. However, there is little literature on the impact of digital networking and emerging media practices on these trust relationships, in part because of the expanded number of platforms for expressing trust-building activities. In considering mediated civic engagement, there is considerable room to explore how the communicative contexts of digital networks effect how people develop, maintain, and communicate trust.

Empowerment

Empowerment is widely accepted as a fundamental element of civic engagement, particularly in the psychology and social movement literature, where it is referred to as *political efficacy*. Understanding empowerment is particularly challenging because it is tremendously variable both within and across fields of study. It is worth noting that this literature is not so much conflicting in its conclusions, as it approaches topics of empowerment from different perspectives. For example, research from the perspective of individual behavioral psychology underscores the effects of endogenous factors (originating within the individual, including their diverse perceptions, skills, behaviors, competencies, and beliefs) in manifesting empowerment (Zimmerman, 1995). The community psychology perspective, however, takes a more systemic approach by examining the differences between three primary levels of empowerment (Perkins & Zimmerman, 1995; Zimmerman, 1990). These levels are important for our objectives because they capture the primary interactions occurring in civic life: among peers and between the individual and the institution.

1. *Individual empowerment* - manifests in participatory behavior, perceived self-efficacy, and motivations for engagement
2. *Organizational empowerment* - includes both *empowering organization* - by which organizational structure and processes enhance individuals' skills and establish the mutual support and feedback required to create change at the community level - and *empowered organization* - in which organizations are able to effectively compete for resources, and interact with other organizations
3. *Community level empowerment* - in which individuals cooperate to improve their collective lives and the relationships between the community organizations that sustain their quality of life

Empowerment is both a means to an outcome as well as an outcome itself. *Empowering processes* enable individuals to perceive control over their futures and effectively influence the decisions that affect them, resulting in *empowered outcomes* (Kelly, 1998; Zimmerman, 1990; 1995). Empowered outcomes provide the measurement of "success" of an empowering process or platform, however literature describing the nature of empowering outcomes is sparse and its operationalization is therefore extremely variable and not necessarily well informed.

This duality between process and outcome is also reflected in literature on political efficacy. *Political efficacy* was born in the collective action and social movement literature and was first laid down by Campbell, Gurin, and Miller (1980): "[efficacy is] the feeling that individual political action does have, or can have, an impact upon the political process, that it is worthwhile to perform one's civic duties. It is the feeling that the individual citizen can play a part in bringing about this change" (pg. 187). The prevailing conceptualization of political efficacy views it as a form of capital that forms a positively reinforcing cycle with civic participation as individuals perpetually negotiate the obstacles to civic participation (Bandura, 1971; Johnson, Kaye, & Kim, 2010; Valentino, Gregorowicz, & Groendyk, 2008). Empowerment as political efficacy can be further divided into internal efficacy and external efficacy (Balch, 1974; Campbell, Gurin, & Miller, 1980; Jung, Kim, & de Zuniga, 2011; Kenski & Stroud, 2006). Internal efficacy refers to an individual's confidence in their ability to understand and participate effectively in civic processes. It evolves based on their ability to procure and process information, communicate their opinion, and their innate sense of confidence (Benkler, 2011). More traditional political science researchers tend to approach internal efficacy as a constant resource (Easton, 1965; Easton & Dennis, 1967; Lane, 1959; Rosenstone & Hansen, 1993). A growing number of scholars, including Valentino, Gregorowicz, and Groendyk (2008), differ from their peers by suggesting that efficacy is *dynamic* and susceptible to influence by external social factors.

While inequities (typically socio-economic in nature) among members of online communities may result in different processes for building internal efficacy, a number of behavioral psychologists suggest that internal efficacy is highly dependent on personality and pre-existing disposition (Balch, 1974; Bandura, 1971; Valentino, Gregorowicz, & Groendyk, 2008) and therefore less susceptible to external factors. Endogenous values and dispositions are important not only because an individual's natural tendencies toward self-confidence (Balch, 1974) influence the probability that they will search out information on an issue, but *how* they go about searching for information so that they feel "empowered." Interestingly, social learning theory suggests that many of the "personal dispositions" that inform an individual's confidence are developed through observation or imitation of others' dispositions. Valentino, Gregorowizc & Groenendyk (2008) further suggest that self-confidence moderates the relationship between anger or fear and participation: effectively, individuals that are less self-confident will experience fear when threatened (and these people are less likely to participate) whereas more self-confident people tend to experience anger when there is some threat to the state of their

environment and are much more likely to act on that anger.

New communication models afforded by digital technologies are affecting not only how we perceive value in rewards (as discussed in a previous section) but the processes by which people achieve and perpetuate political efficacy. An intrinsic component of perceived efficacy is both factual and contextual understanding of an issue (how the individual assumes meaning in an issue) which appear to be heavily bound to communication paradigms (Sotirovic & McLeod, 2001), and are operationalized through media use and interpersonal interaction (McLeod, Scheufele, & Moy, 1999).

These qualities are substantially affected by digital and networked media platforms that enable more variability in the "size" and distribution of discussions, augment patterns of media use, accessibility, and control over news resources, lower the barrier to entry to civic discussion, and increase discussion diversity (Cho, Shah, McLeod, McLeod, Scholl, & Gotlieb, 2009; Gastil & Dillard, 1999; Mutz, 2002; Shah, Cho, Eveland, & Kwak, 2005).

Knowledge and Action

Political knowledge and action are intricately intertwined. Knowledge is an impetus for political participation and the act of staying informed is itself a form of participation in civic life. Meaningful action necessitates, and can further develop, knowledge. In general, knowledge acquisition through media use is positively correlated to an individual's increased awareness of civic issues and increased probability of political participation (Chafee, Zhao, & Leshner, 1994; Eveland & Scheufele, 2000; Kaid, McKinney, & Tedesco, 2007; McLeod, Scheufele, & Moy, 1999; Neuman, 1986; Rosenstone & Hansen, 1993; Sotirovic & McLeod, 2001). Social interaction around political information requires individuals to analyze and create meaning from information from media sources, and has been associated with increasing individuals' interest in politics, the quality of their opinions, their tolerance of varying opinions, and political participation on other communication platforms (Gastil & Dillard, 1999; Mutz, 2002).

Although the literature shows strong and consistent validation of the positive correlation between level of political knowledge and media use (e.g., Chaffee, Zhao, & Leshner, 1994; Eveland & Scheufele, 2000; Weaver & Drew, 1995), individuals' values and disposition will affect how they seek out and interpret media (Graber, 1988). Contemporary technology uniquely allows individuals to easily search out and engage with highly specialized and individualized information (Delli Carpini & Keeter, 2002). Due to technological developments and the rise of algorithmically designed content, much of the information citizens receive has already been filtered according to both their articulated and assumed desires, as well as by those who create the messages, such as the press, political organizations, corporate interests (Pariser, 2011). Additionally, individuals filter their own content engaging in what is known as *selective exposure* and *avoidance* (Hechter & Kanazawa, 1997). This is partially due to the fact that individuals tend to match their use of media with their desired end state for an issue. Quite a bit of research has gone into how people filter their informational searches to the topics and perspectives that are most similar or relevant to them (Sunstein, 2007), which is notably different from the literature examining more traditional mass media, in which the individual user has

much less opportunity to direct their consumption to specialized topics. There is also a fair amount of literature on the types of people search out specific topics versus broad topics. To increase the "information hermit's" exposure to information that might not initially seem important is to increase *incidental* learning. This is accomplished not only by the content of the media, but the patterns of media use that are informed by individual's dispositions, values, and access (Longley, Webber, & Li, 2008). Selective media use is not limited to political attitudes, however. Young and poorly educated people are widely known to expose themselves to a narrower selection of news sources (regardless of media modality) (Cacioppo & Petty, 1982; Kraaykamp & Van Eijck, 2005; Lauf, 2001; Mindich, 2005; Trilling & Schoenback, 2012). Two endogenous psychological traits linked to an individual's predisposition to want to control their environment have also been tied to motivation for searching diverse media sources: extraversion and need for intellectual stimulation (Finn, 1997; Trilling & Schoenback, 2012). Finally, even when individuals do encounter information, they tend to engage in personal framing rather than rational, systematic assessment of arguments, which significantly impacts the perceived relevance of social issues, associations, outcomes, learning, and participation (Sotirovic & McLeod, 2001).

Studies of deliberative democracy have long investigated this intersection of action and information, but they have also encountered hurdles to examining these phenomena in a digital arena. A common criticism and outdated assumption of empirical studies examining discourse as political participation is that online and offline participatory events are predominantly studied independently (Wellman, et al., 2003) despite the convergence of our digital and physical lives. The literature addressing participation in online political discourse also tends to be contentious where it compares participation of individuals from different socio economic groups. Because transaction costs of online political discourse are significantly lower than traditional offline modalities, the Internet is often considered a great democratizing tool (Shirky, 2008). However, there is mounting evidence that online discourse promotes existing inequities in engagement and participation. Inequities are partially based on accessibility of technology, but more importantly, they are based on lack of discussion diversity within social networks (Benhabib, 1996; Jung, Kim, & de Zuniga, 2011). Discussion diversity promotes knowledge building processes that can motivate people to action, even where knowledge exposure is increasingly selective and less serendipitous (Hechter & Kanazawa, 1997). Individuals from lower socio-economic groups tend to have less diverse social networks and therefore less exposure to discussion diversity and stimulation (McLeod, Scheufele, & Moy, 1999).

A substantial amount of research has validated a positive relationship between level of political knowledge and the likelihood of political participation (Kaid et al., 2007; Neuman, 1986; Rosenstone & Hansen, 1993; Sotirovic & McLeod, 2001). Political campaigns of the last ~5 years (and especially Barack Obama's 2008 presidential campaign (McGrath, 2011)) have successfully capitalized on this relatively well-established fact to motivate citizens to take action (in particular through voting). In McGrath's (2011) article in the National Civic Review, Rashid Robinson (director of an organization promoting African-American political participation)

asserts that high rates of youth participation in the 2008 election were partially attributable to the departure from traditional knowledge sharing tactics in exchange for innovative information platforms enabled by the affordances of contemporary technology. "A lot of that [high rate of youth participation] was because they were being engaged through cell phones and through technology around voting. It wasn't because the young folks were having folks knock on their doors. We know that young people are not living in places where they are going to get their doors knocked on. They're not necessarily living at a permanent address. You are not reaching them by calling their homes and because you are engaging them on their cell phones, you have a different type of communication" (McGrath, 2011, p. 41). This anecdote seems to corroborate two important properties of political knowledge acquisition: that it effectively enhances sense of political efficacy by building individuals' confidence in their ability to comprehend, assess, and act on information provided to them (Benkler, 2011), and builds external efficacy through means of interactional justice by appearing forthcoming with information, which we suggested in a previous section can result in certain positive citizenship behaviors (Brockner & Wiesenfeld, 1996). Balch (1974) explores the connection between participation and efficacy as two intrinsically intertwined concepts, concluding that civic participation is not only preceded by perceived efficacy, but is a product of it in a positively reinforcing cycle ("virtuous cycle"). Knowledge acquisition is an interesting property of perceived internal efficacy because political theorists tend to see it as an independent (though related) concept to efficacy in the broader scheme of participatory democracy (Barber, 1984), whereas media theorists tend to perceive factual information as well as contextual understanding of an issue as an intrinsic component of building internal efficacy (McLeod, Scheufele & Moy, 1999).

Traditional conceptions of *political action*, including deliberation, have been based on modes of engagement prevalent within physically-bounded, hierarchical notions of community, even within the more contemporary political science literature. For example, Sotirovic and Mcleod's (2001) study used the following index to measure political participation in a community: attending a city council meeting, public hearing, or legislative meeting, circulating a petition, contributing money to a political or public interest campaign, and working with others in a group on some local problems or issues. It is quite clear that new technologies have substantially increased the ways that citizens can take action and participate in civic life; our objective going forward should be to understand how technology promotes certain mechanisms for action, to what end, and how they change conceptions of *recognized* and *formal* political action.

There is a growing amount of research that is seeking to do just this (Zukin, 2006), however, even as expanded conceptions of recognized and formal political action appears in the research, actions are often limited to those which can be effectively measured. Measurable *outcomes* rather than good *processes*, and material benefits rather than the solidarity or purposive benefits (addressed in a previous section), are prioritized in the literature. The problem is that the this work does not adequately capture the nuanced behaviors and social effects of mediated civic engagement. Voting statistics, for example, do not necessarily capture the perception of efficacy

instilled by voting processes, and Likert-scale survey responses cannot provide insight into the interplay of overlapping relationships that occur within many online-offline actions. The potential behaviors enabled by civic technologies, such as the rise of what has been called "actualized citizenship" (Bennett & Iyengar , 2008), are often the result of recursive feedback where social practices, economic organization, technological affordances and externalities converge and act dynamically with each other (Benkler, 2006).

The increased number of modalities in which citizenship takes shape – from Twitter to town halls, suggests that the scale in which civic engagement is understood needs to be larger. Both more abstract and more immediately influencing everyday life, digital media have impacted the social ties that structure civic life and participation therein. When communication channels are distributed and potentially globally, they transform why and how social connections take shape. The following section asks how the evolving structure of social groupings, whether a neighborhood group, a community or a network, impacts the qualities and outcomes of civic engagement.

Communities, Networks, and Groups

Community is an oft-used term that has come to describe any assemblage of individuals, whether it's the "local community," the "Latino community," or an "online community." A community comprises a group of individuals with mutual interests, common purpose, and collectivity at different scales (Dourish & Satchell, 2011; Tonnies, 1887). It relies on the ability of its members to share resources, live together with (and relate to the differences among) strangers (Jacobs, 1961; Lofland, 1973; McQuire, 2008), and to interact in meaningful ways with their governing institutions. Communities can be physically or geographically bound, or they can develop in relationship to shared ideas, texts, or identities (Anderson, 1991). Despite its overuse, it remains a powerful concept in need of definition, and one that is especially important for understanding mediated civic engagement.

In an essay on community development practice that considers affordances of online environments, Heather Fraser (2005) suggests that the traditional conception of community "environment" should be expanded to include the virtual environment. She also distinguishes between *communities of circumstance* that develop from situations of need (for example communities built around the sense of connectedness experienced when a group of people are confronted with a natural disaster) and *communities of interest* (such as the specific interest groups that form to lobby the government). Although the conversations surrounding the formation and sustainability of these communities were traditionally environment-specific (Wellman, et al., 2003), as the technology that underlies digitally mediated communities becomes faster, cheaper, and ubiquitous, the line between physical and digitally mediated communities is increasingly blurred and their autonomy is called in to question (Nip, 2004). As Baym and boyd (2012) suggest, "…offline contexts permeate online activities, and online activities bleed endlessly back to reshape what happens offline" (pg. 327). This emergent quality evokes compelling questions on how practices and norms propagate across the digital/ physical

boundaries to engage citizens that participate in certain environments. It also raises interest in how contemporary networked communication paradigms impact the development and "sense" of community through low-cost cultural development, as well as how media capitalizing on engagement strategies that operate outside of traditional market-based behavior paradigms can engage citizens in novel ways to strengthen community. Communities—online, offline, and hybrid—are the operating system that is both contingent on and an output of the trust, empowerment and action described above (DeWaal, 2011).

What it means to strengthen community is of course contingent on how community is defined and how technologies support them. The increase in online social networking has contributed to a pulling away from group-based civil society (Bennett & Segerberg, 2012; Putnam, 2000). Instead, we can understand our social reactions in terms of Wellman et al.'s (2003) discussion of "networked individualism," which describes the shift from communities based around tightly bounded groups of people to communities based on a loose but large network of individuals. Simultaneously, we see tools that promote *social interactivity* in the ability to enable the exchange of data that can support in-person interaction. More than just engaging in these types of interactions in a purely online context, the applied research of Laura Forlano (2007) has shown that we are just as likely to engage in physically-embodied actions (that are then reported in GIS-enabled tools) with familiars and strangers, alike.

The types of interaction that emerge from these changing relationship models also differ. Because individuals can communicate horizontally through decision making networks among peers rather than vertically through hierarchical systems, peer-to-peer communication networks are largely decentralized, "flat," and informal (Benkler, 2006; Bennett & Iyengar , 2008; Bennett & Manheim, 2013; Bennett & Segerberg, 2012), whereas the interactions between the individuals and the institutions of a community were historically typified by communication models that were hierarchical, centralized, and formal (McQuail & Windahl, 1986). Pre-existing communication technologies (print, telephone, radio, television, etc.) afforded a unidirectional "hub and spoke" communication model in which information was distributed to the individual by a central source and passively consumed by the public. The widely accepted Multistep Communication Flow model set forth by Katz and Lazarsfeld (1955) was contingent on this phenomenon. It suggests that media effects on individuals are generated through the power of "opinion leaders," who are in turn informed by mass media. Contemporary communication networks are more readily characterized by bidirectional communication channels directly linking participants to each other, providing the ability to both consume *and generate* media in parallel to distributing messages directly to individuals (Jenkins, 2006).

Both political scientists and technology theorists have explored how this network decentralization has led to the individual's independence from group-based societal paradigms (Bennett & Iyengar , 2008; Bennett & Segerberg, 2012; Putnam, 2000), where citizens operate in looser social structures. Instead of direct participation in formal groups, people develop control over the new media environment and engage in multiple loosely defined and frequently digitally mediated social networks, usually communities of interest (Bennett & Manheim, 2013).

Technical explanations for the development of this phenomenon may be provided in the complexity theory literature, which concludes that communication through hierarchical structures is far slower than across decentralized communication channels (Fisher, 2009). Fisher suggests that this emergent form of decentralized, sparsely related network of individuals enables a "tipping point" of connectivity enabling the exponential growth of social networks, that there comes a point when the whole network becomes connected and information can be passed efficiently through tremendous groups of people. This social growth and organization is not necessarily possible in highly centralized social networks. Before the transmission efficiency afforded by the Internet, individuals' social networks were tightly bound around formal social institutions (Rainie & Wellman, 2012).

Occurring alongside these changes in organization, communication paradigms that are responsive to the social affordances of new technologies but platform agnostic have emerged in the last few years. One such model is the One-Step Communication Flow (Bennett & Manheim, 2013). The creators of this model observed a cultural shift in expectations of personalized messages delivered directly to the individuals of a mass audience. This means that individuals can have direct access to primary and original sources from which they are able to make their own meaning, rather than rely on pre-selected and processed information from traditional media outlets (Trilling & Schoenback, 2012). As these hybrid and transmedia communication models continue to evolve and be adopted on a wide scale, the continuation of these studies remains important.

The fact that the collective behaviors afforded by old and new communication architectures are substantially different compounds the difficulty in trying to understand how they intersect to promote engaged citizenship. To this end, Dourish and Satchell (2011) attempt to show that membership in digitally mediated social networks frequently mirrors the social norms of membership in physical communities and can be understood through similar frameworks of reciprocity, responsiveness, responsibility and rejection. Rheingold (2003) believes that clearly defined group boundaries, the ability for most individuals affected by the rules to participate in modifying them, and a system for monitoring participants' behavior need to exist for the decentralized social network to succeed as an engaged public.

This kind of online community can result in the decentralization and democratization of the production, dissemination, and consumption of information, culture, and knowledge (Benkler, 2011; Fisher, 2009; Glaeser, 2011; Rheingold, 2003). As Yochai Benkler (2011) observes, "...the Internet has allowed social, nonmarket behavior to move from the periphery of the industrial economy to the very core of the global, networked information economy" (pg. 23), hinting at the rapidly shifting importance of social value contained in the connections of a social network. Though it is frequently presented as a total shift towards a new communication paradigm, it is more that the social affordances of new and old technologies are converging. As Henry Jenkins explains, participation in culture within transmedia environments often combines production and consumption in explicit and meaningful ways, and generates community around

popular culture by blending traditional audiences with the affordances of peer-to-peer networks (Jenkins, 2006).

According to Benedict Anderson, communities are imagined (Anderson, 1983) – they emerge as the shared understanding of a collective entity. Anderson was specifically interested in the nation-state and the role of the press in crafting it as a concept to which people could feel connection or solidarity. Since Anderson introduced the concept in the 1980s, it has been applied widely to community contexts ranging from local neighborhoods to online forums. The fundamental idea – that community is a non-explicit, shared understanding of a collective – has proven quite powerful, even as the forms in which people connect and communicate collectively have been fundamentally altered or expanded by digital networks. Regardless of the mechanics through which communities form – by sitting on a front porch or using a common hashtag on Twitter – the social and civic benefits that arise out of the shared understanding of a collective remains constant. Communities are imagined – how they are imagined shifts alongside technologies and practices.

Conclusions

Civic engagement, as it is defined in this literature review, is premised on three individual and collective actions: the ability to (1) **acquire and process information** relevant to formulating opinions about civic matters, (2) **voice and debate opinions and beliefs** related to civic life within communities or publics, and to (3) **take action** in concert and/or tension with social institutions such as political parties, government, corporations, or community groups. We have described how these three actions are being altered by shifting patterns of communication prompted by new digital technological infrastructures and their corresponding practices. Breaking down these actions to their correlated affective qualities, we look at trust and empowerment as the basic building blocks of civic engagement, and demonstrate how technological mediation is necessitating a rethinking of not only the how of civic engagement, but also the why and who.

By bringing theories of human behavior to bear in in these areas, we hope to expand the disciplines to which scholars of civic engagement look as they continue to think about the causes and outcomes of engaged and informed communities. In reviewing the literature across various social science disciplines, we hope we have introduced new answers to the question of *why* we engage; but we also hope to have introduced new questions about *how* we engage. The reality of global digital media connectivity should push scholars and practitioners to look at different behaviors and practices as civic, and, consequently, to understand the individual and social benefits of those actions as distinct from traditional civic outcomes. Finally, this collection of literature should also force the reconsideration of social organization patterns as they pertain to civic life. The shape and scale of communities have changed as they have intersected with digital networks. Understanding how networked communities and groups impact the motivations and outcomes of civic actions is necessary to the evolving field of civic engagement.

Looking forward, it is important to understand the field of technology and civic engagement not as the realization of normative values of technological progress (Schmidt &

Cohen, 2013), nor as a dystopian misstep toward technological solutionism (Morozov, 2013), but as part of a shifting terrain of institutions and communities in the context of new communication patterns. This literature review is meant to demonstrate the consistency in the scholarship about civic engagement, while pointing to the points of tension brought about by new modalities of culture, consumption and participation.

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