

The Mediated Community: A Historical View

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Questions around how the new class of online networking platforms can generate new types of human interactions and how the new media can help achieve humans' goals have been key subjects of study in many research fields, including computer science, sociology, planning. To further the inquiry into these questions, we may need to re-visit some of the key concepts about the relationship between the information and communications technologies and the society. This literature review essay intends to serve this purpose by enlisting and summarizing a series of different schools of thought in the creation of community in the digital era.

OPENING

In the era of cloud computing, big data, mobile technology, and the Internet of things, we have seen intensified discourses around the notion of smart city. Investigations into the processes by which data are collected, information is derived, and their implications on the ways our man-made physical world is transformed have been prime subjects of study in many fields, including computer science, human geography, sociology, city planning, etc. Among various research topics, a theme focusing on meaningful processes of human interactions and social exchange that may lead to the creation of new forms of urban existence has emerged. Social media, crowd sourcing, voluntary information sharing, zetcitizenship, are among those key subjects of interest that are being examined by researchers.

The common goals and research intents held by this camp of researchers are to understand how this new class of communication platforms generates a new type of human institutions perhaps through a new form of governance; how the new platforms help achieve humans' social, economic, political and cultural goals; how the society as a whole organizes a technology context (institutional, organizational, training) that optimizes the use of these new media and their related opportunities? To further the inquiry into these questions, I argue that we need to look back in time and visit again some of the key conceptions and theories about the interplay between the technology and the society.

This short literature review has three goals: first, to re-examine practical aspects of the concept of community; second, to investigate the

relationships between mediated communication technologies and community; third, to explore how information and communications technologies (ICTs) may affect the creation and processes of community.

INTERNET AND COMMUNITY - RESEARCH TRIALS

As the phenomenon of the Internet spread, scholarly attention to its social implications on our societies intensified. Literature from various research fields—sociology, anthropology, geography, behavioral science, planning, new media study, or information management—overflows with theoretical analyses and empirical studies on online interactions or offline activities associated with the use of the Internet¹³. In general, two major schools of scholarly inquiries can be identified:

(Social) Network Approach

On one hand, a multitude of sociological and ethnographic accounts provides insights into the cultures and rituals of various new patterns of social interaction that have been taking place in so-called online virtual communities or cyberspace^{4 8 20 37 45 46 47}. This group of studies takes what I refer to a (social) network approach in that virtual communities are the ones whose interactions are mediated primarily by the online world, which is structured by the networks—the Internet.

Place-based Approach

On the other hand, a parallel stream of studies set out to examine the ways in which existing local geography-based communities have employed the new medium to address pressing issues and to build stronger bonds among citizens and neighbors^{23 36 38}. This stream of research projects takes what I refer to a place-based approach to examine the effects of the Internet on the development of geographically grounded communities. In this approach, research projects are usually labeled with one of the following keywords: Community Network, Community Computing, or Community Informatics.

Embedded into both the two groups of research studies, there are also philosophical debates that dispute the good and the ill, the promise and the danger inherent in this new form of social life³. In spite of the fact that these two different approaches have their own unique research agenda, one common theme applies to both, that is, what the Internet and other associated communication technologies offer is a flexible communicative space that can be construed and bent in an infinite number

of ways by sufficiently motivated groups of people, no matter how close or how far they live.

The Conjunction of Two Streams - Community

Computer-mediated networks (whether they are community networks or networked virtual communities) must be analyzed as artifacts shaped within particular systems of social organization or social structure⁴⁰. They (computer-mediated networks) develop in the ordered arrangements of human social relations between individuals, groups, and organizations that together make up and describe community social structure⁴⁵. These computer-mediated networks are embedded in these social relations. Their constitution and ongoing operation are shaped by this community social structure⁴⁰. The way in which this community social structure is constructed, realized, or conceptualized has a great impact on the development, technological form and function of these computer-mediated networks. Therefore, it is necessary to re-visit the various ways of conceptualizing the term “community” before we can take on the journey to the world of computer-mediated networks.

THEORIES OF COMMUNITY - PLACE-BASED VS. INTEREST-BASED

As a term, community is at once both clear and complex. Its principal characteristics have been formulated (reformulated), summarized, and debated within sociology, psychology, geography, and a host of other social and professional sciences. It is also a term now used very often in both public policy and public land management planning practices.

The concept of community may be defined in very different ways. Historically speaking, it has been used to characterize participants in aboriginal villages, tight-knit urban neighborhoods, or members of a specific profession¹⁸. Despite the overabundance of uses, with careful attention, two distinctive definitions can be identified: Community of Place and Community of Interest, as discussed below:

Community of Place

A “place-based community” refers to a geographically limited population who share a common local environment, often with a common set of values and characteristics. Place-based communities support physical lives. Homes, roads, schools, water supplies, police services, phone lines, recreational spaces, hospitals, and places of worship are some of the many needs met by local communities. Other various terms may be used, such as geography-based community, geographic community, physical community, or proximate community.

Communities of Interest

In contrast, a “community of interest” refers to a kind of human association, whose members do not necessarily know one another or meet in person on any sort of regular basis. Rather they are bound together by identification with a common issue or interest. As a result, communities of interest do not reflect traditional notions of “common union” often identified with community as a place-based entity. This conceptualization of community is based not on reciprocal relationships that grow out of geographic proximity, but on the social bonds of shared ethnicity, culture, or common interest^{18 45}.

Communities of interest have existed for centuries but are widely acknowledged to have become more significant as industrialization and urbanization began disrupting agrarian lifestyles. The industrial revolution reduced people’s dependence on their neighbors, increased their mobility, and expanded their social contacts. All of these factors contributed to new patterns of social (community) networks built on something other than a shared place (I will continue to address the notion of social network later in this literature summary).

Community without Propinquity

It is generally argued that the concept of community of interest was first proposed by Melvin Webber⁴³, although he used a different term “community without propinquity.” He observed that instead of individuals having their greatest involvement (sense of community) with those among whom they live (neighbors, as defined on the basis of nearness or propinquity), a situation was arising where (at least for professional and managerial groups) communities might be spatially far-flung, but nevertheless close-knit, intimate, and held together by shared interests and values (communities based on common interest rather than propinquity)^{43 41}.

Non-place Urban Realm

Melvin Webber embraced the idea of community without propinquity and further expanded the notion when he revealed his next big idea: non-place urban realm a year after the idea of community without propinquity was surfaced. Webber argued that it is the accessibility rather than the propinquity aspect of place that is the necessary condition (tied to the idea of community). As accessibility becomes further freed from propinquity, cohabitation of a territorial place (a neighborhood, suburb, a metropolis, a region, or a nation) is becoming less important to the maintenance of social communities. Spatial distribution is not the crucial determinant of membership in these professional societies (communities of interest), but interaction is.

Communities comprise people with common interests who communicate with each other. There is a wide variety of interest-based communities, whose members conduct their affairs within roughly the same spatial field (a neighborhood, a metropolis, a region), within this spatial field these many interest-based communities form a web of communities. Melvin Webber⁴⁴ described these “communities of interest-communities” as non-place urban realms. A non-place urban realm is neither urban settlement nor territory, but heterogeneous groups of people communicating with each other through various channels spanning across space⁴⁴.

Space of Flows

Based on the notion of community of interest, what logically belongs together no longer needs to be in one place in order to function as single unit. With the help from technology (ICTs in particular), it is becoming possible to be geographically distributed and still act as a unit in real time.

Manuel Castells⁶ is one of the many observers who see revolutionary transformations taking place at the end of the 20th and the beginning of the 21st century. Driven by the dynamics of ICTs, he envisions the “rise of the network society,” where a “space of flows” is superseding the traditional “spaces of place” as the dominant logic for social organizations and institutions^{6,5}.

A new space for social interaction has emerged. In this space interaction takes place in real time across very large distances. This space is shaping and shaped by the flows of information, people, money, and goods. It was Manuel Castells who argues that this is not only the gradual extension of long historical trends, but that a threshold has been passed to create a new social space that has its own characteristics and dynamics. In his groundbreaking book *The Rise of the Network Society* (1996), he called this space the space of flows. The space of flows is created by the real-time interaction of distributed social actors. The space is comprised of interactions and the material infrastructure that makes these interactions possible.

(Personal) Social Network

Another way to interpret all these various conceptualizations of non-place communities (community without propinquity, non-place urban realm, space of flows) is to view our societies as networks. As Barry Wellman argues, “we find community in networks, not groups”^{45,47}. The world functions in networks. In networked societies, boundaries are permeable, interactions are with diverse others, connections switch between multiple networks, and hierarchies can be flatter and recursive⁴⁷.

According to Wellman’s interpretation of the notion of networked community, communities are far-flung, loosely-bounded, sparsely-knit and fragmentary. Most people operate in multiple, thinly-connected, partial communities as they deal with networks of kin, neighbors, friends, workmates and organizational ties. Rather than fitting into the same group as those around them, each person has his/her own personal community (which functions as a personal social network)⁴⁵.

Networked Individualism

The transformation of community from solitary groups to individualized networks is just one of the many signs that show our modern societies are in a condition of individualism. Namely, the dominant trend in the evolution of social relationships in our societies is the rise of individualism.

Social scientists have emphasized the emergence of a new system of social relationships centered on the individual. This new form of social relationships is what Barry Wellman calls “personalized communities,” which are embodied in me-centered networks⁴⁷. This phenomenon represents the privatization of sociability. This new pattern of sociability in our societies is characterized by networked individualism, and the Internet (or ICTs) serves as the material support for this transformation⁷.

Bakardjeva contends that users’ participation in what have been called virtual communities³² over the Internet constitutes a cultural trend of “immobile socialization”; or in other words, socialization of private experience through the invention of new forms of inter-subjectivity and social

organization online². The Internet is being mobilized in a process of collective deliberation and action in which people engage from their private realm. What has to be noted is that by engaging in different forms of collective practice online users transcend the sphere of narrowly private interest and experience².

Historical Trend

The proliferation of personal community networks happened well before the development of the Internet (the cyberspace). Driven by the revolutionary developments in transportation and communications (telegram and telephone), the first half of the 20th century experienced a transition which moved the industrialized societies away from solitary groups in single locales (door-to-door) to contact between people in different places and multiple social networks (place-to-place). Households became important centers for networking; neighborhoods became less important. Studies of the early history of the telephone, radio and television testify to the desire of the societies for additional channels of reciprocal communication, new ways of interacting, and new forms of community¹³.

Another transition has already started and is currently under way, that is the shift away from place-based inter-household ties (place-to-place) to individualized person-to-person interactions and specialized role-to-role interactions. The formation of virtual communities based on online communication is interpreted as the culmination of an historical process of separation between locality and sociability in the formation of community: new, selective patterns of networked social relations substitute for territorially bound forms of human interaction⁷.

VIRTUAL COMMUNITY IN CYBERSPACE – THE WAY TOWARDS NETWORK SOCIETY

Barry Wellman argues that recent technological development in communications has afforded the emergence of complex social networks as a dominant form of social organization. “When computer-mediated communication networks link people, institutions and knowledge, they are computer-supported social networks”⁴⁷. They create a spaceless place—cyberspace— where words, human relationships, data, wealth, status and power are made manifest by people using computer-mediated communications technology^{20,47}.

It is well argued that telecommunications is producing a “network society”, in which a highly interdependent space of flows, constituted through electronic impulses, dominates the meaning and dynamic of places⁶. It is also argued that ICTs are creating a distinctive era of globalization, in which the marginalization of geographic distance enables new possibilities of human development. In this view, the Internet is a key catalyst of digital globalization, collapsing space, challenging the integrity of places, leveling the economic playing field, and creating networked societies¹⁴⁵.

Networked Community

Several scholars have tried to synthesize and interpret available evidence on the dynamics of social activities found in online communities and to further understand the relationship between the Internet and society.

Katz, Rice, and Aspden¹⁷ found higher or equal level of community and political involvement among Internet users compared to non-users. They argued that Internet users were more likely than non-users to meet with friends, and to have a social life away from home. Howard, Rainie, Jones¹⁶, based on a 2000 survey conducted by the Pew Institute's Internet and American Life Project, found use of emails enhances social life with family and friends, and extends overall social contacts. A survey cited by Di Maggio, et al.¹² showed that users of the Internet tend to have larger social networks than non-users. Barry Wellman⁴⁸ and his colleagues have shown that a positive, cumulative effect between intensity of use of Internet and density of social relationships. In addition, the use of emails added to social interaction face to face, by phone, and by letter, and did not substitute for other forms of social interaction. Hampton and Wellman⁴⁷ conducted a study on a wired suburb in Canada—the Netville—and found that users of the Internet have a higher number of social ties both within the suburb and outside the suburb. The Internet enhances sociability both at a distance and in the local community. The general conclusion, if anything, from the studies mentioned above is that the Internet seems to have a positive effect on social interaction, and it tends to increase exposure to other sources of information.

PLACE-BASED COMMUNITY-COMPUTING INITIATIVES

Place Still Matters

The emergence of the Internet as a new communication medium has brought our mankind new patterns of social interaction. The formation of communities online allows people to reach to the rest of society and access many of society's benefits without leaving their homes. Where people live seems to have less and less of an effort on the type of person they are.

However, Mollenkopf and his colleagues, in their book "Place Matters," make a simple claim: place matters. They argue that where we live makes a big difference in the quality of our lives, and how the places in which we live function has a big impact on the quality of our society²⁴. They argue that people still care about where they live. Where we choose to live still affects how much we pay in taxes, where our children go the school, and who our friends are. Place affects people's access to jobs and public services, education, people's access to shopping and culture, and even the air they breathe.

A virtual network community may provide experience in cooperating (and trusting) with strangers (at least most of them are strangers). But place-based community computer networks have the inverse challenge: no one is a stranger (at least most of people in a community network are neighbors). Furthermore, the crisis of community, as described comprehensively by Putnam³¹, is primarily a crisis in proximate communities. All of Putnam's indicators pertain to local community interactions (participation in parent-teacher associations, membership in bowling leagues).

Place and local communities are, and will continue to be, fundamental to the functioning of society. Cyberspace, fueled by the Internet, might have erased distance but not place⁴². To most community practitioners, urban planners, or social activists in general, the notion place matters

is one of the many principles carried into their daily routine for many community building or neighborhood planning efforts.

Community Network, Community Computing, Community Informatics

Still, community development and neighborhood planning can benefit from access to ICTs. A growing volume of research seeks to analyze the use of ICTs for community development efforts.

Several different terms have been used to label this type of research: Community Network, Community Computing, and Community Informatics. In spite of that many different terms, the central theme embedded in all of this type of research studies is to link community development efforts with the opportunities that ICTs present. As discussed before, community computing initiatives provide new ways to deal with old problems of community development and community building efforts.

Place-based community computer networks support interaction among neighbors. They facilitate information dissemination, discussion, and joint activity pertaining to municipal government, public schools, civic groups, local events, community issues and concerns, commerce and economic development, and social services⁹. In supporting these various interactions, the network becomes more than a medium. It becomes an institutional actor with relationships to other community institutions, as well as to individuals and their groups. The network becomes part of the persistent social structure of the community^{21 19}.

Community computer networks are created to facilitate the development and management of information and activity in a proximate community. The virtual network and the physical community are co-extensive. Another way to portrait a community computer network is to see it as the online portal of a physical community; it is the online presence of the physical community, for which it presents in the virtual world¹⁹.

The past two decades have witnessed many experiments directing Internet technologies to neighborhood and community computing; including the following projects: The Well in San Francisco^{32 33}; Santa Monica Public Electronic Network (PEN)^{14 34 27 35}; Cleveland FreeNet, Big Sky Telegraph in Montana³⁸; The Blacksburg Electronic Village^{10 11 28}; Seattle Community Network³⁶; Ottawa's Capital FreeNet; Netville in Toronto¹⁵.

CLOSING

It has been 48 years since the first message was sent over the ARPANET in 1969, an early form of the Internet, from UCLA to Stanford; 26 years since the World Wide Web (WWW) became available to the public in 1991. It was 13 years ago in 2004 when so-called Web 2.0, the second stage of development of WWW, started to take place, which was characterized especially by the change from static web pages to dynamic and user-generated content. Approximately after that point of time, a new class of web-based networking platforms, known as social media, started to emerge, including Facebook, launched in February 2004; Youtube in February 2005; Twitter in March 2006. The Internet has continued to

evolve and transform the computer and communications world. People, riding on the waves of technological innovation, have continued to look for ways and means to connect to one another via this vast web of information and communications networks. Our desire to reach out to and be associated with the world has only intensified with the advancement of technology.

I argue that the rise of social media should not be recognized as a stand-alone phenomenon emerging from nowhere but alongside the continuing attempts to embed computer-mediated communication into various aspects of human society. As such, the use of social media can be understood to follow from the amateur-driven discussion forums such as USENET or Bulletin Board Systems (BBS) popular back in the 1980s. There are, however, two ways that the use of social media, compared to the early forms of online networking practices, might be understood as distinguishable. The first might be considered evolutionary: the ever expanding community outreach and human interactions afforded by increasing breadth and depth of technological capabilities in the area of ICTs. Some interesting recent trends that are worth mentioning include:

Constantly Connected

The popularization of smartphones and social media allows the world to be constantly and conveniently connected. Media formats have transformed into a mobile phenomenon, including personal computers, cellular phones, tablets, etc. Wireless mobile connectivity allows Internet access almost any time anywhere. Users are free of the constraints of physical proximity and spatial immobility.

User-centric Voluntary Information

This new genre of online communication, generally considered as micro-blogs, remains a space for everyday expressiveness and interaction. Millions of private users chat with their friends and share photos or videos via Twitter or Facebook at any given point, using the platforms as a personal journal of their thoughts and daily activities.

Imagined Audience

We present ourselves differently based on who we are talking to and where the conversation takes place. The same goes for socializing online. Participants in the online world have a sense of audience in every mediated conversation. This audience is often imagined and constructed by an individual user in order to present themselves appropriately online²².

Globalization and Consolidation

The social media environment has developed from a number of small social media sites into the consolidation of communication in the hands of a few global big players. For example, Facebook, with the acquisition of Instagram and WhatsApp, has been able to offer services beyond those provided by Facebook itself²⁶.

The second way the use of social media is different can be revolutionary. It is the unforeseen responses to and unprecedented circumstances and phenomenon caused by the technological advance and its associated shifts in human cultures and ways of living. These may include the following trends:

Social Commerce

As a result of the rise of social media, businesses have been looking to how it can be financially beneficial for them. We have already seen disruptive advertising all over some of the popular networking platforms. Web monetization has been seen as a process of converting existing traffic being sent to a particular site into revenue. As the majority of millennials are spending their time on social networks, the commerce world would want to capitalize on this trend.

Communications as Data

Every keystroke leaves a footprint in the online world. Every bit of conversations is stored somewhere in the cyber space. All these are data that can be retrieved and subsequently mined with a range of specialized tools. This access to data has contributed to the emergence of a variety of tools and services that promise to measure and compare impact, influence, and audience reach on social media³⁰.

A Source of Global News

This new form of online communication has also turned into a platform for global news media and public communication. Twitter has increasingly been used as a source of real-time information and a place for debate in news, politics, business, and entertainment. Participants show their immediate aftereffects on the platform, as users report their experiences and search for information, often as events are unfolding.

Social Media for Social Change

Social media has changed the way people communicate for promoting social change. In the past few years, a number of social media sites have been prominently associated with social movements in Libya, Egypt, Tunisia, and Algeria. These networking tools are said to give people the ability to connect and unite in a crisis, raise awareness of an issue worldwide, and take on authoritarian governments²⁵.

Weaponized Media

Social media has also emerged as powerful weaponry. It has become an important tool for influencing people's attitudes, beliefs, and behavior. Both governmental entities and terrorist groups are exploiting social media platforms effectively and experimenting with the engagement techniques and types of content that best achieve their political or military goals²⁶.

Looking forward, the evolutionary aspects of the use of social media will continue to extend the reach of the web and draw more users into the platform as a whole. The revolutionary aspects will challenge the human society to continuously examine the impact of this ever changing communications network to our lives.

This paper summarizes a variety of different schools of thinking about the inter-relationship between ICTs and the human world as a whole, from both physical and social perspectives. It intends to offer a broad historical view towards our perceptions on the ways we can possibly reposition this new form of computer-mediated communications. I hope that the notion of mediated community and its associated knowledge base can serve as a channel for allowing the discourses to continue.

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