CHAPTER 13

New Communication Technologies and the Future of Community

Keith N. Hampton

Introduction

There is a widespread perception that new communication technologies are fundamentally changing how people interact with friends, family, and acquaintances. These claims are as prevalent in the commentary and op-ed articles of major media outlets as they are in scholarly articles from the humanities, social sciences, and computational sciences. These claims are part of a new transdisciplinary focus on what has traditionally been known as the "community question" (Wellman, 1979). Indeed, we are observing a time of fundamental change to the structure of community. However, the emergence of this structural change is relatively recent. Previous attempts to explain change in human interaction as a result of new, digital, communication technologies have misplaced and overstated change to the nature of community. The rise of what I call persistent contact and pervasive awareness drives recent change.

New communication technologies make persistent contact and pervasive awareness possible and are especially evident in those technologies described as social media. Whereas previous technologies afforded mobility, they generally lacked affordances for relational persistence and sustained awareness. As such, social ties were often lost at key, life course events, such as moving, graduating from high school, leaving college, and changing jobs. Persistent contact is an affordance of those communication technologies that allow people to articulate their association and maintain contact over time. Many of these technologies afford persistence through the ability to broadcast information from person-to-network, sustaining contact without substantively drawing from the time and resources required to maintain ties through other channels of communication. Persistence is a counterforce to mobility and has the potential to link lives across generations and over the life course in ways that closely resemble the structure of affiliation found in the preindustrial community.

Pervasive awareness is an affordance of the ambient nature of digital communication technologies that provides knowledge of the interests, location, opinions, and activities embedded in the everyday
life events of one's social ties. Often resulting from short, asynchronous exchanges, pervasive awareness is an outcome of person-to-network communication and low, social presence that typify such contact. It is part of a dynamic balance between broadcasting and monitoring content on topics that range from the seemingly trivial to the important. Pervasive awareness can be part of the strategy that individuals deploy to deal with the audience problem present in many social media. The audience problem is the inability to perceive reception of communication among the audience of person-to-network broadcasts. It contrasts with context collapse, which is primarily a problem of impression management when broadcasting to multiple audiences. Pervasive awareness provides indicators of attentiveness and the availability of social ties. Although it is tempting to equate this process as the outcome of surveillance, it has more in common with the informal watchfulness that was typical in the preindustrial community.

We are entering a period of meta-modernity that renews many of the constraints and opportunities of the premodern community structure without discarding all of the affordances of mobility that have perpetuated through late-modernity (Giddens, 1991). Not since the rise of modern, urban-industrial civilization has there been the potential for such a significant change to the structure of community—a change that will transform collective action, public opinion, the cost of caring, political participation and deliberation, how individuals exchange support, bonding and bridging social capital, and how lives are linked over the life course and across generations.

Communication Technology and Change to the Structure of Community

The study of community is the study of social structure. Intrinsic to the study of community is the exploration of variation in relational strength, social contexts, and the cleavages that exist between ties and the environments where they are formed and maintained. Like variation in the design of objects and the interaction between people and technologies (Norman, 1988), variation in community structure affords different outcomes. These outcomes also depend on individual traits, available technology and skills, externalities of the technology, and the environment. For this reason, the study of community is not about the study of one type of place or one type of bond, but rather the study of variation in context, communication, and technology.

Recently, the study of community has focused on the role of new, digital, information and communication technologies. However, it is not clear if the structure of community has truly changed as a result. Although some of the well-known models used to frame recent technological change—such as "post-industrialism" (Bell, 1973), the "network society" (Castells, 1996), and "networked individualism" (Wellman, 2001)—point to important economic and social differences, these models represent a continuation rather than a divergence in the structure of community that began in the 16th century with the rise of urban-industrialism. They are consistent with the observations of many of the earliest community theorists. It is only very recently with the advent of those communication technologies broadly described as social media that there has been the potential for significant change to the structure of community.

Preindustrial Community

The mobility narrative describes the social forces that separate the structure of community in premodern society from that of modern life. It includes the rural-to-urban transition, the loss of traditional social bonds, transportation and communication technologies that have made it easier to overcome constraints of time and space, and the tendency for people to leave relationships behind as they move from one place, job, or interest to another. It describes the change to the structure of preindustrial community as it transitioned through urban-industrialism.

A fundamental change to the structure of community accompanied urban-industrialism. In Europe, this process was tied to the industrial revolution. In America, this transformation was most evident as urbanization firmly took hold (Park, 1915). Prior to urban-industrialism, for most people, community
resembled the relatively small, dense, social system depicted in Figure 13.1. Community consisted of relatively few social ties that were densely interconnected and organized around a limited number of social contexts. The density of relations afforded a high degree of conformity. Diversity within a community, in terms of beliefs, background, and daily labor, was low. Watchfulness was high, and there was little room for individual divergence from collective norms. Deviance was met with repressive sanctions from a coherent collective authority (Durkheim, 1993 [1893]).

In this pre-urban, preindustrial form of community, most people were involved in few distinct foci of activity. Foci are those “social, psychological, legal or physical entity around which joint activities are organized” (Feld, 1981, p. 1016). The household was the primary unit of production, and there

Figure 13.1. Preindustrial community (pre-modernity): A dense network of close social ties organized around a single focus of activity.

Source: Author
was no separation between home and work. The activities of daily life were organized around family, religion, and settlement. In all practical sense, with no distinction between public and private, life was organized around a single foci—one social and physical context. The network of people's interactions was limited by the "space of places" (Castells, 1996). Interactions that could take place between households that could travel the relatively short distance for "door-to-door" interaction defined community (Wellman, 2001).

**Urban-Industrial Community**

Industrialization reorganized the structure of community relations. Early community theorists observed a large-scale, rural-to-urban transition and increased occupational specialization, migration, and mobility (Durkheim, 1993 [1893]). Key among these observations was recognition that with mobility, people escaped the bonds of "organically connected" social ties of "kinship, locality, and occupation" (Simmel, 1950, p. 404). By escaping the domination of the small, social circles that typified this early community life, the individual was free to explore personal interests. As a result, people's foci of activity diversified.

The size and heterogeneity of cities, combined with transportation and communication technologies that afforded contact, allowed *shared interest* to replace *shared place* as the dominant force in social tie formation (Fischer, 1975). In this age of modernity, it was possible to maintain relationships beyond those that could be achieved by door-to-door contact alone. People could travel greater distances, by train, car, and eventually airplane, and they could increasingly utilize communication technologies to expand the scope of their interactions from door-to-door to "place-to-place" (Wellman, 2001).

Under the conditions of urban-industrial society or modernity, the structure of community resembles that depicted in Figure 13.2. People belong to multiple foci of activity. For most, home and work are separate. Voluntary associations, religion, school, workplaces, neighborhoods, public space, and interest groups ensure that a person's community consists of a number of distinct social milieus. As a person progresses through the course of his or her life, he or she moves from one neighborhood, school, job, and interest to another. He/she abandons a large number of social ties that originate from these settings and replaces them with ties found in new neighborhoods, schools, and jobs. Although the ties in these different social environments occasionally overlap, for the most part, they represent distinct social worlds that are sparsely knit. There are relatively few bridges between social contexts, and relations are less dense than they were in the past community structure. As a result of lower density, watchfulness across community relations is markedly lower, but, where it does exist, it is highly variable and localized within foci of activity. Centralized authority has replaced collective authority, and institutional surveillance has replaced watchfulness.

**Postindustrial Community, a Network Society, and Networked Individualism**

Increased mobility and freedom from the constraints of time and space were the primary affordances provided for by the structure of community as tied to the rise of urban-industrialism. There was little doubt that digital technologies pushed the trend of mobility still further. Bell (1973) argued that emerging technologies were ushering in a postindustrial society. He felt that increased interaction drove such changes. This interaction occurred both in the volume of communication and through improvements in the ability to transcend distance in short periods of time. While the technology was novel, the trends he observed were not distinct from the established mobility narrative that characterized urban-industrial community.

Similarly, Castells (1996) suggested that new communication technologies would allow social networks to overcome historical limits on interaction. These limits were the natural boundaries of interaction that were possible within the spatial organization of urban-industrial community, the space of places. In the network society, the space of flows would supersede the space of places; interaction would be increasingly free from the constraints of place. Castells (1996) forecast the superiority of the space of flows over the space of places, but the affordance is still one of domination over space.
and time—mobility. Wellman (2001) makes this trend particularly overt by recognizing the role that mobile technologies play in a society in which people are networked individuals who now connect "person-to-person." Bell (1973), Castells (1996), and Wellman (2001) identified significant economic, political, and cultural change, but they present models of society that are consistent, but do not diverge from the mobility narrative that started with urban-industrialism.

**Persistent and Pervasive Community**

Until recently, the use of digital communication technologies has primarily afforded a social structure that advances the mobility narrative and a community structure that started with urban-industrialism.
That is, early digital technologies further reduced the friction of space and the geographic dispersion of social ties beyond that which previous technologies could accomplish, but they have not fundamentally reorganized the community structure. Primarily because of the growth of social media, more recent technological change has made two affordances of digital communication technologies more salient. These affordances are persistent contact and pervasive awareness. As the technologies that support these affordances become increasingly integrated into everyday life, the structure of community has the potential to change. This change is not fundamentally new, but represents a hybrid of the preindustrial and urban-industrial forms. An era of meta-modernity is replacing late-modernity. This hybrid structure breaks from the mobility narrative that has preoccupied the study of community.

**Persistent Contact**

In the urban-industrial community, as the individual transitioned through the life course, technologies that provided for mobility allowed him or her to leave kinship, locality, and workplace groups behind. As the individual moved from one neighborhood, school, or job to another, he or she abandoned a large number of social ties that originated from these settings and replaced them with ties found in new neighborhoods, schools, and jobs. Such transitions were costly. They lost supportive relations at each step. As Coleman (1988) noted, this mobility resulted in a loss of transgenerational contact, and "for families that have moved often, the social relations that constitute social capital are broken at each move" (p. 113). Recent technological changes have reversed this trend.

Although previous communication technologies afforded the opportunity to communicate across further distances with reduced time and cost, they lacked an affordance for persistence. The advent of social media, particularly social network sites, has afforded persistence. These technologies allow people to articulate connections to individuals and institutions, share information, and interact with content through those connections. When a connection has been articulated through a social network site or similar system, social ties have the potential to become enduring channels of communication.

Social network sites and similar systems are distinct from other channels of communication in how they provide persistence. Articulation of associations is a defining characteristic of social network sites (boyd & Ellison, 2007). However, persistence is not merely a function of having used a system to record a connection. Other systems provide similar, enduring, public records of affiliation, such as those provided by the government (e.g., criminal and tax records), church (e.g., marriage and baptismal records), and other institutions (e.g., school yearbooks, telephone books, membership lists). Persistence is a function of articulation and contact.

In the past, to prevent a social tie from becoming dormant, persistence required significant effort in the form of tie maintenance, most often person-to-person contact (face-to-face, written, etc.). Hampton and Ling (2013) found that this type of contact comes at a cost; it consumes time and other resources that one might otherwise use to maintain a larger core network. Unlike past communication technologies, social network sites allow people to communicate from person-to-network. Person-to-network contact affords persistence, because contact can be maintained without substantively drawing from the time and resources required to maintain social ties through other forms of communication. Digital technologies, in general, and social media, in particular, supplement contact; they do not displace contact through other channels of communication (Wellman, Quan-Haase, Witte, & Hampton, 2001). Previously, life course events, such as moving, graduating from high school, leaving for college, and changing jobs would have resulted in the loss of social ties and foci of activity. Now, social media and some other digital technologies afford relational persistence.

Most persistence is deliberate, but it can also be unintentional in that the articulation of relations through social media often allows people to navigate social ties through second and third degrees of visibility. In this way, contacts from an organization or other foci of activity not directly articulated are accessible through friends-of-friends. You may never truly lose contact with friends, including those
who are “unfriended” through social media and those who are never directly articulated, because awareness continues through mutual acquaintances and shared and persistent content.

Pervasive Awareness

Pervasive awareness is an affordance of the ambient nature of digital communication technologies. It is often the result of short, asynchronous exchanges of text or photos and can result from the use of a variety of technologies. It is a common affordance to users of social network sites, blogs, microblogging, and other social media. The content of messages that contribute to pervasive awareness includes those that, on face, might appear trivial, e.g., a photograph of a meal, as well as those that are more likely to be described as important matters, including political, health, financial, or relationship content. Pervasive awareness provides knowledge of the activities, interests, location, opinions, resources, and life course transitions of social ties.

In contrast to the common understanding of the role of media richness (Daft & Lengel, 1986) and social presence, as part of pervasive awareness, lean media (e.g., a text-based medium of limited length) that are low in intimacy (e.g., face-to-face contact) and immediacy (i.e., asynchronous) communicate mutual awareness, closeness, and other information, which are unlikely to be communicated through other channels. With persistence, the added dimension of communicative duration increases the richness of the communication. Channels that provide for pervasive awareness provide for relational maintenance that can preserve and possibly even strengthen existing ties.

Pervasive awareness can result from passive or active contact. That is, awareness can result from communication acts where one is the recipient or the initiator of communication. For example, an individual shares the status update that she “had a bad day at school.” For recipients, this might provide awareness that their acquaintance is unhappy or that she is enrolled in school (or that she attended that day). For the sender, feedback from recipients in response to the status update provides an awareness of other’s awareness (Lu & Hampton, in press). This reciprocal awareness helps the sender manage the audience problem common to media that provide for pervasive awareness.

The audience problem is the inability to determine who is receiving information broadcast from person-to-network. “Friends may not log in to the site or may not see the content” (Bernstein, Bakshy, Burke, & Karrer, 2013). In part, the audience problem has been explored as part of “context collapse” (Marwick & boyd, 2010). Context collapse is generally viewed as a problem of impression management. Many media that afford persistent contact do not easily allow individuals to segment content by foci of activity or context. As a result, sharing content most relevant to relations from one foci of activity (e.g., family members) may unintentionally be shared with relations from multiple foci (e.g., the workplace). The consequence of context collapse is typically described as embarrassment, revealing previously hidden information, or simply the risk of audience disinterest (Davis & Jurgenson, 2014). However, the audience problem is about the lack of awareness of audience attention, not performance in the presence of multiple audiences.

The audience problem is specifically a result of the inability to gauge interest and attention. This is analogous to the problem teachers experience when broadcasting information to a classroom of students, hoping that they are interested, paying attention, and retaining content. However, the algorithms behind many social media further complicate this problem. Social media may not provide for a true person-to-network broadcast, but use nontransparent algorithms to direct content to a subset of social ties (Hamilton, Karahalios, Sandvig, & Eslami, 2014). This can make it difficult for people to determine audience size, let alone the attention of specific actors. Like teachers in classrooms, social media can also be used to test who is receiving content. By monitoring online (e.g., reposting, commenting, and liking), and offline feedback (e.g., phone calls, etc.) in response to content, there is an awareness of awareness about how receptive social ties are to different content. It builds or retains relational strength and may serve as a cue to the readiness of ties to provide future social support.
It is tempting to think of pervasive awareness as the outcome of the surveillance afforded by digital technologies. However, the term “surveillance” overemphasizes the active and purposeful nature of the activities that allow for pervasive awareness. Traditionally, surveillance is an active process with a purposeful outcome (e.g., to prevent a crime) (Lyon, 2002). The ambient nature of technologies that provide for pervasive awareness means that individuals are mostly passive in their information collection. Their passivity may resemble the traditional lurkers in other virtual forums, but it also relies on the recordable, persistent, and searchable nature of digital conversations (boyd, 2010), which allows individuals to act on information at a later time. Unlike institutional surveillance, pervasive awareness is primarily part of an interpersonal process. This process is largely indistinct from the watchfulness that existed in the preindustrial community. In fact, the design intent of Bentham’s (1791 [1955]) panopticon was an affordance that resembled the direct social control provided through high social presence and the densely knit relationships characterized by the preindustrial community (Foucault, 1995). Pervasive awareness brings us full circle in the advent of surveillance.

Social Life under the Condition of Persistent-Pervasive Community

Recent changes to the media landscape have introduced new affordances that have the potential to restructure the nature of the community. Although previous technologies afforded mobility (the ability to overcome constraints of time and space), they lacked an affordance for relational persistence and sustained awareness. This is not to suggest that such affordances were not present to some extent in other technologies and contexts. Yet, with the widespread adoption of social media, these affordances are, for the first time, part of the lives of many people in how they communicate within their personal community.

The structure of the persistent-pervasive community resembles a hybrid of preindustrial and urban-industrial community forms (Figure 13.3). Key features of this structure, which differentiate it from the urban-industrial community that preceded it, include relationships and foci of activity that are less transitory than at any time in modern history, higher rates of bridging between and within foci, and more frequent interaction. These changes to the structure of community are likely to impact, among other things, family life, public opinion, collective action, and how individuals exchange social support.

Social Capital

There is robust evidence to support the finding that a natural by-product of pervasive awareness and persistent contact is social capital. The use of social media, notably Facebook, but also a number of other digital technologies, is related to higher levels of awareness of diversity within people’s social networks (Hampton, Lee, & Her, 2011). Network diversity, or bridging social capital, has many advantages in terms of access to information and resources. However, because most Facebook friends are not strangers but consist of established friends and family (Hampton, Goulet, Rainie, & Purcell, 2011), it is not clear how much new, bridging, social capital is being created as a result of these technologies. Affordances for persistence and awareness prevent tie dormancy and dissolution and increase the flow of information, making visible the resources and diversity that were always present. For example, the finding that people who share more photos online are more likely to report that they have a cross-party discussion partner may have little to do with forming new discussion partners. It may have more to do with how images influence visibility of political affiliation within networks where political talk might be taboo (Hampton, Sessions, & Ja Her, 2011). The potential to use social media to navigate through two and three degrees of affiliation makes attempts to conceal resources and limit awareness difficult.

Bonding social capital—a product of relational strength and the density of social ties—contrasts with bridging social capital—the resources available through diverse, loosely bound, social ties. There is a reciprocal relationship between the self-disclosure that is so much a part of person-to-network broadcasts and relational strength. People generally regard those who engage in intimate disclosure as closer,
and they tend to feel closer to those to whom they have disclosed (Collins & Miller, 1994). There are indications that social media do strengthen relational closeness (Burke & Kraut, 2014) and are associated with having a larger number of core ties (Hampton, Sessions, et al., 2011). This may represent higher levels of bonding social capital. However, persistent contact and pervasive awareness may breed bonding at the cost of bridging social capital.

Bonding can reduce opportunities for bridging by increasing transitivity (Granovetter, 1973). Previous studies have found that for social relationships maintained online, there is a tendency toward balance, for people to articulate relationships with others with whom they have relationships in common.
(Welles & Contractor, 2015). If awareness leads to network closure, access and control over unique information and resources may decline (Burt, 1992). Although this type of network density may be good for information openness and can facilitate coordination, it can also contribute to conformity and reduce the diversity of new information that is created (Shore, Bernstein, & Lazer, 2015). This may contribute to a need for people to self-censor in an attempt to avoid sharing with unintended audiences and to preserve their control over information.

Individuals who use technologies that afford persistence and awareness within a specific foci of activity, such as an organization (Ellison, Gibbs, & Weber, 2015), are most likely to experience increased access to resources at the cost of individual control over unique information. Locally, within foci, where network density is high, we should also expect increased affordances associated with watchfulness and network closure, such as generalized reciprocity and the use of repressive sanctions (Durkheim, 1993 [1893]) against those who resist the conformity of the inward-looking nature of village life. Algorithms may advance this trend further. Technologies such as “social search” may encourage network-to-person communication. Algorithms that privilege or limit exposure to information, based on opinions or knowledge that has been accredited by community members, may omit unique information, limit exposure to diversity, reduce opinion quality, and remove the network advantage afforded by a community structure that is lower in cohesion.

**Linked Lives**

Mobility negatively impacted the durability of transgenerational relationships. In an urban-industrial community, as children mature and leave home for marriage, work, or education, family relations—notably parent–grandparent, child–parent, and grandchild–grandparent—decline in quality and frequency of contact (King & Elder, 1995). The concept of “linked lives” and their role over the life course points to potential costs and benefits of persistent transgenerational contact (Elder, 1994). These include the transmission of antisocial behaviors, religious and political influence, and higher commitment to intergenerational social support. There is some evidence to suggest that social media reestablish transgenerational contact (Siibak & Tamme, 2013), and that technologies as mundane as e-mail and the mobile phone play an important role in the persistence of the child–parent relationship during transitional life course events (Boneva, Kraut, & Frohlich, 2001).

**The Cost of Caring**

Awareness can be a precondition of empathy. It is a dimension of social intelligence and can facilitate the provision of social support (Adler, Linton, & Vaughan, 1964; Konrath, 2012). However, not all types of awareness are positive. Awareness of undesirable events in the lives of others can have a negative psychological impact, a “cost of caring” that includes higher levels of stress (Kessler & McLeod, 1984). As with all affordances, there is likely to be variation by individual attributes. Women tend to have higher levels of awareness than men. There is evidence to suggest that many digital technologies not only increase awareness of life events, especially for women, but that women are also more susceptible to stress as a result of this awareness (Hampton, Lu, & Shin, in press).

**Collective Action**

Pervasive awareness may be particularly relevant to collective action. Threshold models of collective action suggest that the propensity to become involved in a protest or social movement is a function of the number of people in a community observed participating (Granovetter, 1978). For some movements, people have very high thresholds, that is, they need to see that many of their ties are involved before they too will participate. Social networks have always been used to communicate threshold, but technologies that support pervasive awareness may make the commitment of network members more visible and visible earlier in the process. Pervasive awareness may create “common knowledge, that is,
knowledge of other people’s knowledge, essential for collective action” (Chwe, 1999, p. 129). Indeed, there is some evidence to suggest that pervasive awareness and persistent contact have played an important role in political action as part of the Arab Spring and elsewhere (Tufekci & Wilson, 2012). However, visibility may not only increase the speed of collective action, but visibility of hesitation, hedging, and uncertainty can also lead to the rapid decline of a movement (Hampton, 2003).

The Spiral of Silence

Unlike the purposeful nature of political participation, political discussion can include formal and informal talk and conversation (Wyatt, Katz, & Kim, 2000). Some hope that social media might produce discussion venues in which people feel free to express their opinions, thus enriching public discourse. Indeed, social media users do report lower levels of uncertainty about the opinions of their friends and family on some political issues (Hampton et al., 2014). However, when awareness includes the perception of opinion disagreement, it can reduce opportunities for political discussion by creating a “spiral of silence” (Noelle-Neumann, 1974). When aware that family, friends, and colleagues do not share one’s point of view, a person may self-censor and choose not to engage in political discussions.

A study of one, political event—revelations by Edward Snowden about the U.S. government’s surveillance program—suggests that social media users are less willing to speak out on this issue online and in a number of offline settings, especially when they think that people with whom they are affiliated through social media do not share their opinions on this issue (Hampton et al., 2014).

Conclusion

Much has changed and will change as a result of digital communication technologies. However, until very recently, these technologies have not fundamentally altered the structure of community. As with many earlier technologies, digital communication technologies have reduced the costs of interacting across time and space. Yet, recent technologies have also introduced widespread affordances for persistent contact and pervasive awareness that have the potential to fundamentally change the structure of community. Persistent-pervasive community is a break from the mobility narrative of “bond-free living” and disposable gratification that has perpetuated through late-modernity (Bauman, 2000). Whereas previous technologies afforded mobility, social media and related technologies provide for relational persistence and ambient interaction. Not a new social structure but rather a hybrid of premodern and modern community, persistent-pervasive community represents a period of meta-modernity that does not discard the affordances of mobility, while renewing many of the constraints and opportunities of the premodern community structure. Early glimpses into how these changes to social structure will impact everyday life suggest that awareness and persistence will both expand and constrain individual and collective opportunity.

Note

1. An extended version of this chapter was originally published as “Persistent and Pervasive Community: New Communication Technologies and the Future of Community” (2016). American Behavioral Scientist, 60(1), 101–124.

References


