

SPECIAL SECTION

Technologically Generated Communities

Reframing Sociological Concepts for a Brave New (Virtual?) World*

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The articles that make up this *Sociological Inquiry* feature emerged from the 1995 meetings of the American Sociological Association. The authors included in this issue were expressly solicited for a special session on "Technologically Generated Communities." The authors were asked to individually provide their own perspectives on the intersection of technology, community, and social action. My essay attempts to crystallize several key changes that the new communication technologies demand of conceptual frames long embraced by sociologists. In particular, the pages that follow propose some necessary adjustments to the ways in which sociologists formulate and apply three key analytic concepts: social interaction, social bonding, and empirical experience.

During my second year in graduate school, I had occasion to read Alfred Chandler's fine book, *The Visible Hand*. The experience remains quite vivid in my mind, because *The Visible Hand* was the type of work that took its readers on a journey. In this case, the journey traversed those wondrous years at the end of the 1800s, a time when U.S. shores were joined by cold metal train tracks and vibrating telegraph wires. Chandler told the story of a world faced, for better or worse, with profound change and profound possibilities. And as Chandler's prose guided me through the era, I remember wondering if there could be a more exciting time to be alive than in those final decades of the nineteenth century.

The past few years have silenced my query. Fiber optics, satellite transmission, cellular radio technology, and microchips have entered the social playing field. Words like fax, internet, downloading, and virtual imaging have become a part of our everyday vocabulary. The arrival of these new communication technologies makes it clear to me that "the more exciting time" that I pondered as a graduate student is here and it is now.

The flurry of the times should strike us not just as common individuals but as sociologists as well; the technological leaps of our day cannot help but command our sociological attentions. Recent developments have touched issues at the very heart of sociological discourse—the definition of interaction, the nature of social ties, and the scope of experience and reality. Indeed, the developing technologies are creating an expanded social environment that requires amendments and alterations to the ways in which we conceptualize various social processes. In light of such change, one might guess that sociologists would be very busy. Yet our voice on these matters registers as a mere whisper in comparison with many of our sister social sciences: communications, psychology, and anthropology.

The articles that constitute this *Sociological Inquiry* feature emerged from a conscious attempt to amplify the sociological voice. The 1995 meetings of the American Sociological Association provided the initial site of this effort. Each of the authors included in this issue was expressly solicited for a special session entitled “Technologically Generated Communities.” They were asked to individually provide their own perspectives on the intersection of technology, community, and social action. This issue of *Sociological Inquiry* documents the exciting results.

My contribution to this volume is designed to “clear the brush” on this intellectual course. Thus, my essay attempts to crystallize several key changes that the new communication technologies demand of conceptual frames long embraced by sociologists. In particular, the pages that follow propose some necessary adjustments to the ways in which sociologists formulate and apply three key analytic concepts: social interaction, social bonding, and empirical experience.

Redefining Social Interaction

Elsewhere (Cerulo, Ruane, and Chayko 1992; Cerulo and Ruane 1996) I have suggested that the sociology literature displays a certain inertia when it comes to conceptualizing and distinguishing types of interactions. With few exceptions, the field remains committed to categories that pose a great divide between direct and mediated interactions. We tend to locate intimate or quality exchanges within the heading “direct,” a category that currently demands physical co-presence. In contrast, we most often describe mediated interaction as impersonal, ingenuous, and fleeting.¹

Sociology’s traditional stance on interaction implies that physical co-presence provides the standard by which to judge the importance, the form, and the quality of all other varieties of exchange. Such a standard establishes a rigid measuring rod, and one that can pose great challenges for those in the field. For, periodically, researchers encounter certain problematic events that cast doubt on both the validity of the co-presence standard and the analytic categories that such a standard generates. R. Merton (1946), for example, wrote of such a problem in

Mass Persuasion. Recall Merton's struggle to explain an intimate audience response to Kate Smith's wildly successful war bond campaign, a campaign waged via radio, one of the seemingly impersonal mass media. In the present day, a time of online discussion groups and interactive television, similar challenges to the co-presence standard are becoming increasingly common. Consider the following excerpt from a CompuServe discussion group. Throughout this online exchange, we witness a depth of feeling that defies the field's conventional depictions of mediated interaction and its impersonal nature. In seeking comfort during the onset of a tragedy, the individual quoted here turns not to the family and friends of his direct interaction exchanges, but rather to the mediated bonds born of his online affiliations:

My daughter (Jennifer) has cancer. As some of you know, she is 8. In all the world I never conceived of all the sorrow I would feel at learning this, all the horror at watching her suffer so stoically through test after test. There is not a lot of hope, just a lot of medicine. We are preparing ourselves for the worst, which her doctor has hinted is what we should expect. I've decided to journal you everyday, those of you who can bear to read it. Feel free to answer, to offer sympathy, encouragement or whatever else you're feeling. Please feel free to check me if I am too sorry for myself or for her. . . . I do not know how to tell her grandparents, or even our friends, for she is much loved, inside and out of the house. We can start here. She asked me this morning, "Dad, does it get better? It does, doesn't it?" My mouth moved up and down, but nothing came out of it. I could sure use some words (quoted from Katz 1994, p. 1).

The *New York Times* recently reported a similarly striking event. Futurist Tom Mandell, diagnosed with lung cancer, announced that he would submit a daily journal in an effort to share—online—his experience of dying. More than 2,500 postings were recorded by Time Online, the network handling the correspondence. It was an emotionally charged dialogue that included not just talk of death, but Mandell's online marriage and online wedding reception (Kuntz 1995).

The depth of these exchanges, and others like them, contradict the physical co-presence standard that typically guides sociologists' explorations of intimate or quality interactions. And when faced with these contradictions, it is interesting to note the ways in which sociologists have chosen to respond. We speak of the closeness and trust born of such mediated connections using terms such as pseudo-gemeinschaft, virtual intimacy, or imagined community. Such designations reify the notion that interactions void of the face-to-face connection are somehow less than the real thing.

Was Jennifer's father compelled to tell his story for the promise of pseudo-support? Was the cross-national online celebration through which Mandell entered holy matrimony merely a simulated ritual? And are the online dialogues generated by these very emotional events and others like them merely transmitting virtual pain or virtual joy? Sociology's outdated analytic stance threatens to debase and overlook a set of social interactions that are becoming more and more prevalent in everyday experience. Knowing this, it seems critical that we begin to rethink

our tendency to define interactions according to the nature of the channel involved in the experience—mediated versus direct.

To be sure, there have been isolated attempts to de-emphasize channel as the chief criterion by which interactions are classified. Craig Calhoun (1991), for example, suggests that we retool our analyses of interaction using a four-tier classification system; his system juxtaposes elements of direct and indirect communication exchanges. In so doing, Calhoun adds both a structural and a contextual dimension to the definition of social interaction. Others (e.g., Meyrowitz 1985, 1994a, 1994b; Nass 1993; Schlesinger 1993; Steuer 1992; Walther 1994; Walther and Burgoon 1992) emphasize the cognitive frames that individuals place on mediated interactions, noting that such mindsets effectively override the importance of channel per se in predicting the depth, quality, or intimacy of an exchange.

The works cited here should serve as a cue for the field at large, spurring a wider-reaching, systematic examination of technology and its impact on the very nature of social interaction. In particular, sociologists must devote more serious attention to the identification of relevant analytic dimensions—dimensions beyond considerations of channel—that will best guide and define future research on interaction.

Toward this goal, I suggest five key dimensions that can inform our approach to social interaction as it occurs in the present technological environment. First, we must attend to the context in which the communication occurs, noting the presence or absence of physical co-presence, mental co-presence, and the number of individuals involved in sending and receiving the message. Second, we must attend to the form of the communication, distinguishing direct² from mediated interaction, and one-way versus two-way exchange. Third, communication content must be explored, referencing instrumental versus expressive content, impersonal versus intimate content, and factual versus fictional material. Fourth, we must determine the social location of those who participate in an interaction, considering characteristics such as age, gender, race, and socioeconomic status, the relative heterogeneity of interaction participants, and the social distance between them. Finally, considering the outcome of an interaction can tell us much about the character of the exchange. Noting active versus passive stances and responses on the part of participants, or the nature of the benefits that emerge from the exchange (e.g., bilateral versus unilateral), will alert us to important differences in the nature of an interaction.

Table 1 illustrates the ways in which these five dimensions might expand traditional models of interaction. By charting the communication path employed by interaction participants—that is, noting the composite nature of the exchange as interactants flow through the various stages of their interchange—we can develop a set of typologies that encompass the expanding forms of interaction as it occurs in the current technological environment.

Table 1
Dimensions of Social Interaction

Who	Says What	Via What Medium	To Whom	What Effect
No. of senders	Instrumental versus expressive	Direct versus mediated	No. of receivers	Active versus passive response
Demographics	Impersonal versus intimate	Co-presence versus nonpresence	Demographics	Bilateral versus unilateral benefit
Heterogeneous versus homogenous sender	Fact versus fiction	One-way versus two-way capacity	Heterogeneous versus homogeneous audience	Bilateral versus unilateral penalty

To be sure, the creation of such typologies represents a formidable challenge; the task requires a conceptual approach that balances detail with utility. The typologies we create must be sufficient in number so as to encompass the wide variety of interaction possibilities. At the same time, each typology must be sufficiently distinct to illuminate meaningful contrasts.³ Despite the difficulty of this task, it is a job well worth our intellectual investment. For success on this front promises a much richer approach to social interactions than one that frames our inquiries with sole reference to channels of exchange.

Redefining Social Bonds

The rapid advancement of communication technologies has enabled new strategies through which social actors can connect. Thus, just as industrialization stimulated Durkheim to revise pending theoretical notions of solidarity, so too do the new communication technologies beckon the rethinking of social bonds.

Most works addressing technology's impact on social bonding paint a highly pessimistic picture. The literature suggests that technological advancements do little to enrich social members' feelings of connectedness. Rather, many contend that technological strides such as those we are witnessing in the area of communications typically spur superficial bonding, isolation, and in extreme cases, anomie (e.g., Adorno 1967; Blumer 1933, 1939; Ferrarotti 1988; Giner 1976; Horne 1986; Jaspers 1951; Kubey and Csikszentmihalyi 1990; Mitroff and Bennis 1989; Postman 1986, 1992; Swerdlow 1983).

If we concede that technology has changed the field of social interaction,

then assumptions that link technology to the disintegration of social bonds may be in serious error. It may be more accurate to say that technological advancements are changing the nature and character of social bonds. Consider, for example, the ways in which technology has altered the complexion of intimate bonds. Sociologists typically define intimate ties as connections that result from gradual and progressive interpersonal contact and disclosure. Furthermore, such ties generally are thought to be constructed via sensory exchange; the sight, sound, smell, and touch of another represent essential building blocks of intimate bonds.⁴ In monitoring some of the interactions that occur over the Internet, I am struck by a new “brand” of intimate tie that defies these traditional criteria. Many online dialogues exhibit a deep level of involvement characteristic of long-term relationships. Yet the bonds of intimacy emerging from these online interactions are formed during the earliest phases of the interchange. Note, for example, the following CompuServe exchange. The participants are two “first-time” acquaintances who are dialoguing within a discussion group devoted to the topic of gays in the military:

Participant 1: Do you have any idea what it is like to be gay? To have to hide the most important thing about yourself, even though you had no choice about it? To live in terror of discovery? To be laughed at, isolated and beaten up. To live around people who hide their children from you? Who wouldn't let you teach them if they knew? I am a teacher who dreads every call to the principle's office. I always wonder if it will be my last. How can you love a country that finds you too disgusting to serve? That permits people to attack you and your friends, throw things at them from car windows, deny them the right to be married and have families? Can you conceive of that? Does that get through to you on any level at all?

Two years ago, my lover and I walked through the French Quarter of New Orleans. We vacationed there because we knew it to be a tolerant place. We left a restaurant just off Bourbon Street, and three men jumped out of their cars. They knocked my lover and me down. They kicked us in the face, the kidneys, and the groin. They knocked four of my teeth out, broke my jaw. Then they urinated on us. They laughed and said they were soldiers. They said they'd love to have us in the military. I couldn't tell the police what happened. I was afraid the school district might find out back home.

Participant 2: I was very touched by your message, buddy. What happened to you was horrible, unsupportable. That's not what I lost three toes for in Vietnam, for scum to beat up on people like you and your friend. I fought so you could do whatever you wanted so long as you didn't hurt anybody or break the law. You and I have no quarrel. But we do have these problems, and I'll be straight with you about it just like you were with me. Do you have any idea what it's like to be in a field or a jungle or a valley with bullets and shells blowing up all around you? With your friends being cut down, ripped apart, bleeding, dying right next to you screaming for their moms or kids or wives? Do you know how much trust and communication it takes to get through that? Do you have any idea what it's like to go through that if there's tension among you?

I'm not saying this can't be worked out. I'm saying, go slow. Don't come in here with executive orders and try to change things in a day that should take longer. Don't make me into a bigot because I know it takes an unbelievable amount of feeling to crawl down there into a valley of death. It takes love of your buddy. And that's something both of us can understand.

right? But if you hate him, or fear him, or don't understand him—how can you do it? (quoted from Katz 1994, p. 30)

This exchange is notable owing to the instant intimacy that comes to bind its participants. In this interaction and others like it, information regarding each individual's core character is exchanged prior to more mundane facts—a reversal of traditional expectations. Further, because the site of this exchange is located in mental rather than physical space, participants must quickly develop mutual trust with regard to the sensory data upon which the bond is formed; each individual must believe in the picture the other participant paints of him/herself. In the online world, the sensory foundation of a relationship is confined to the visual images that appear on a computer screen and the details those images paint in the mind's eye of the participants.

Upon first glance, the instant intimacy that characterizes many online relationships may strike us as a phenomenon about which sociologists have written before. Sociologists have considered the individual who confides the pain of a recent divorce to a stranger sitting next to her/him at the counter of a diner. Similarly, the literature describes persons who share with a bartender or hairdresser intimate stories of a son's mental breakdown or a daughter's premature pregnancy. Past work explained such encounters as a function of the anonymity that can cloak participants in modern sites.⁵ Yet the "anonymity thesis" falls short when applied to online encounters such as those cited in this article. Recall the online activities of individuals such as Jennifer's father or Tom Mandell. For these social actors, anonymity was never a concern. Rather the behavior of these individuals, as well as that of the "gays in the military" discussants, confirm recent studies suggesting that the instant intimacy so frequent in online settings is more likely linked to the anticipation of a long-term relationship rather than the promise of anonymity (see, e.g., Walther 1994).

In lieu of the anonymity thesis, we might be tempted to explain the instant intimacy phenomenon as a function of a specific setting or situation. Donald Black, for example, suggests that modernized societies produce fleeting encounters that "replace the social structure of the past, and people increasingly have closeness without permanence, depth without commitment" (1976, p. 135). Thus, a supermarket checkout line or a mall food court might easily provide a site in which two formerly unacquainted individuals may become temporarily propelled into meaningful and deep disclosure. But like the anonymity thesis, Black's description of "situational intimacy"⁶ falls short of explaining the online experience. Black's concept suggests a "one-shot" encounter, a temporary connection that disintegrates as modernized individuals leave the site of the bond's formation. Clearly the intimacy displayed in many current online encounters is more than a one-shot deal. Online exchanges such as those cited in this article more typically serve as catalysts for long-term and meaningful relationships.

One cannot hope to explain the intricacies of instant intimacy within the

confines of this discussion. My purpose in raising the phenomenon here is simply to illustrate one of the many new connection experiences facing sociologists. Such new modes of connecting indicate that the very nature of social bonds is entering a new permutation. Given the centrality of bonding to the sociological endeavor, these new permutations deserve our most serious attentions.⁷

Redefining Empirical Experience

Social structure alters the cognitive experience: This statement represents one of the most basic tenets of sociological discourse. Marx argued the point in linking economic structure to class consciousness. Durkheim, too, forwarded the association in relating specialization to variants in solidarity. At present, Giddens (1991) underscores the claim in connecting various aspects of modernization to the construction of personal identity.

Recent advances in communication technologies add a new chapter to this intellectual narrative. Like the railroad and the telegraph, the new technologies have redefined space, place, and time. In so doing, technology has provided us with new sites of empirical experience and it has re-configured the complex ties that bind the social and the cognitive worlds.

When technology allows us to witness a long-deceased President Kennedy shake the hand of contemporary figure Tom Hanks (a.k.a. Forest Gump), or when technology allows us to hear deceased Beatle John Lennon join voices with still living band mates Paul, George, and Ringo,⁸ technology effectively relocates the past in a moment of present collective experience. Similarly, when technology enables us to walk through the architectural design of a yet to be built home, or when it allows a plastic surgeon or hairdresser to show us the fruits of their labor before that labor actually occurs, then technology effectively brings the future into the realm of the here and now.

The new communication technologies make it possible to take any internal intuition and reproduce it in the empirical world of shared, sensory experience. Persons, objects, and events once confined to the life of a particular actor's mental "eye" can now be projected to others in a way that surpasses mere description. Via technology, personal cognitions can be re-created in a publicly accessible space; elements of memory or future imagining can enter human experience as tangible empirical observations—new additions to the public domain. Thus, "data" formerly defined as unique to a single actor's cognitions now become the accessible property of a collective.

When we blur the boundaries that distinguish private thought from shared experience, when we adjust the lines that separate past, present, and future, or fact from fiction, we expand the confines of what we call reality. Such an act commands the sociological eye to refocus its search for data as we embrace formerly inaccessible sites as the home of social interaction.

Conclusion

My discussion of the new communication technologies suggests several conceptual areas requiring reframing and thoughtful attention. Similarly, the articles that follow present additional themes of sociological interest, each of which stems from emerging technologies and their social impact.

Both Joshua Meyrowitz and Sherry Turkle address technology's impact on identity development. Meyrowitz reflects on technology's ability to recast the definition of social structure. In so doing, he unravels the new technologies' role in redefining the "stranger" and the resulting redefinition of "them" versus "us." Turkle addresses the dynamic construction of individual and community identity. She explores the role of technology, the objects it creates, and the links between objects and identities.

Articles by Virnoche/Marx and Purcell explore the intersection of "real" and "virtual" place. First, Mary Virnoche and Gary Marx take readers to a special type of technologically generated community, the "community network." Community networks are systems that rely on both electronic and face-to-face exchange. The authors document and analyze interaction patterns within such hybrid locations. Their work also explores the problems faced by those constructing these new "worlds." Kristen Purcell's article poses a complementary issue. Her work examines the ways in which communication-based technologies can enhance physical place. In so doing, Purcell points out the ways in which technology aids rather than impedes physical co-presence and group interaction.

Finally, Claude Fischer provides a historical perspective on technology's contributions to community formation. In reviewing the impact of technology, Fischer suggests the ways in which current technological innovations may fall short of many forecasts, predictions, and hopes.

ENDNOTES

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¹For some thorough reviews of this literature, see Baran and Davis (1995), Beniger (1987), Cerulo, Ruane, and Chayko (1992), or Peters (1994).

²One might be tempted to equate direct exchange with physical co-presence, and thus perceive an overlap in the elements of the context and form categories. Yet it is important to remember that mediated exchanges can occur among the physically co-present. When I pass a note to a colleague during a meeting, distribute a printed "handout" to those attending one of my lectures, or address my class with a microphone, I am engaging in mediated exchange even though my audience is physically co-present.

³I am pursuing such a classification scheme in Cerulo and Ruane (in preparation).

⁴See, for example Duck (1987, 1992), Giddens (1991, pp. 95-97), or Reiss (1960).

⁵Gergen et al. (1973) provide the most dramatic example of the anonymity thesis.

⁶Elsewhere, Ruane refers to Black's notion as "situational intimacy." See Cerulo, Ruane, and Chayko (1992, p. 126).

⁷Chayko (dissertation in preparation) represents a valuable contribution to the reconceptualization of social bonds.

⁸I refer here to the two new recordings released by the Beatles in November 1995: "Free As A Bird," and "Real Love".

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