

INTERSECTIONS OF ACADEMIC AND VIRTUAL COMMUNITY:

NETWORKS AND THE REPRODUCTION OF CULTURE

Donald W. Matteson

Department of Sociology

University at Buffalo

Paper presented at the Annual Meetings of the Midwest Sociological Society, April 2-5, 1998; Kansas City, MO. Questions or comments regarding this manuscript can be directed to the author at Department of Sociology; 430 Park Hall; State University of New York at Buffalo; Buffalo, NY 14260. Phone: 716/645-2417 x442. Fax: 716/645-3934. E-mail: matteson@acsu.buffalo.edu. **PLEASE DO NOT CITE WITHOUT THE AUTHOR'S PERMISSION.**

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Donald W. Matteson, SUNY at Buffalo

Abstract

Definitions of community have changed over time, moving away from geographical proximity as the unifying feature. Later, more inclusive, definitions place their emphasis on social and cultural structure rather than spatial structure. Academic and virtual communities fall under these later definitions of community. Academic community is viewed from a cultural standpoint, and both academic and virtual communities are viewed from a social network perspective. Some intersections between the two are noted and implications of virtual community for academic community are explored. Issues raised include scholarly collaboration, intellectual property, redefinition of academic culture, and the possible removal of academic concerns from the strictly academic realm.

INTERSECTIONS OF ACADEMIC AND VIRTUAL COMMUNITY:
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The meaning of community has changed considerably over time. Nearly all definitions of community, however, share unity as their central principle. Whereas early conceptions of community gave primacy to physical location as the source of unity, later definitions consider a broader range of sources for this unity. Once community no longer derived from physical proximity, the door was opened for geographically decentralized groups to be viewed as communities. Notably, this includes both academic community and virtual community. It is these two types of community and their intersections with which I am concerned in this paper.

I examine academic community in light of Cohen's (1985) conception of community as culture and via social network approaches. I also consider virtual community through the lens of social networks. Finally, I examine the intersections of these two types of community and discuss the implications of virtual community for academic community.

Early Definitions of Community: Gemeinschaft, Gesellschaft, and Human Ecology

Much of the work on community was inspired by concern over the quality of social life after industrialization (Wellman 1988). Community thinkers were concerned with the maintenance of strong social ties that were the hallmark of small-town, village-centered community in the face of the alienating juggernaut of urban life.

Perhaps the best known treatment of community is Tönnies's (1957) *Gemeinschaft und Gesellschaft*. Tönnies argues for the distinction between

gemeinschaft (community) and gesellschaft (society). The former is warm, emotional, close-knit, and based on sentiment, while the latter is rational, distant, and impersonal. Tönnies presents these as ideal types; neither of these is to be found in actuality. His concern is that the balance is tipping more towards gesellschaft relations – a concern that is echoed in later writing.

The close relations in gemeinschaft settings result from the close contact of kin and extended family ties. These ties are enhanced by knowledge of other community members as total individuals. In gesellschaft settings, in contrast, people know others in only one of their many capacities – for example, teacher, farmer, or baker. The demise of community, then, stems from the replacement of strong, complete ties between kin and neighbors with the weak, rational ties characteristic of a rationalized society.

Human ecology treats community more through the lens of a biological analogy. Contrary to its colloquial connotation, community represents the competitive aspect of human organization. Elements vie for supremacy over physical space; when the dust settles, the relationships between units are negotiated at the community level. Out of these struggles arises a spatial patterning with symbiotic relations between the constituent parts.

On some level, human ecology represents a slightly modified restatement of Tönnies. Rather than viewing community as the consensus-driven part of human organization, as Tönnies did, human ecology views community as ridden with

competition. The distinction between community and society does not, however, sit as well in human ecology as it does in Tönnies's work.

From this brief sample, we see that at least two early conceptions of community depended heavily on place as a major defining characteristic. More recently, definitions of community have been amended to consider a broader range of phenomenon. Two major reformulations involve social networks and cultural similarity.

Social Networks as Communities

By the 1970s, thinkers began to consider community with an emphasis on social structure, rather than spatial structure (Wellman 1988). This gave rise to network approaches to community, with a focus on the “personal” community – the ties that surround a focal person.

Fischer (1982) analyzes social networks in California to address the question of whether community is indeed lost with urbanization – the classical question Tönnies posed. Rather than community dissolving, Fisher finds that urban dwellers have as many ties as rural residents; moreover, there is no difference in the quality of these ties. The primary difference between the two groups pertains to the composition of these ties. Urban residents tend to be tied more to non-kin than to family, in contrast to the more family-oriented ties characterizing rural areas. Thus, rather than community lost – ties remain stable in number and quality between rural and urban areas – it is community restructured. Tönnies seems to have been

at least partially right: urban life does seem to erode to some degree the ties between kin and neighbors (Fischer 1982 p. 258).

Eventually, when people realized that network analysis could provide a useful bridge between the micro- and macro- levels of analysis, a powerful tool in the study of community was born. Granovetter (1973), for example, argues that examination of weak ties allows for a better understanding of the broader social structure. That is, by looking at weak ties, we can see how personal networks meet and relate to create a broader web of interpersonal relationships. It is the aggregation of these networks that society comprises.

Having transcended the need for physical proximity as its defining characteristic, network theorists paved the way for other non-geographic conceptions of community. Furthermore, viewing communities as clusters of people interacting with one another leads comfortably into visions of community as shared culture.

Community as Culture

Cohen (1985) contends that culture, rather than structure, is what constitutes community. There are two elements of community: commonality, and distinction from other communities – boundaries. Commonality here derives from a shared symbol system. Boundaries at the edge of a community are constituted by people interacting via their shared symbol systems.

A set of symbols – mental constructs – comprises a set of norms, concepts, and ideas that community members share. Cohen refers to this set of shared

symbols as culture. Culture allows members of a community to interact, to “be social.” Culture serves at once to facilitate communication between community members, but also to help identify boundaries. The misuse or incorrect application of a symbol in interaction calls immediate attention to the fact that a person is not a community member.

An important point here is that only the symbols are held in common by community members. The meanings attached to the symbols can vary somewhat from member to member, presenting a situation of similarity rather than uniformity. Thus, Cohen (1985) posits that community is more usefully viewed as an aggregating device, rather than an integrating mechanism.

Community membership is also reaffirmed through the use of rituals. Cohen (1985 p. 50) points out that regardless of their other purposes, rituals have the ability to heighten consciousness. Thus, rituals maintain a prominent place in the arsenal of tools for boundary affirmation.

ACADEMIC COMMUNITY

What, if anything, provides academics with the element of commonality necessary to be considered a community? Given the geographically diffuse, global nature of higher education, it is obvious that academic community cannot be based on common location. Approaches to academic community typically invoke a shared culture argument or they employ a social network framework.

Academic Community as Culture

Following Cohen (1985), academic community as culture must have elements of commonality and distinction from other groups. Regarding commonality, academics share in a set of norms (e.g., honesty, free exchange of ideas), as well as a set of concepts (e.g., “service”, academic freedom, intellectual standards).

Acceptance of this set of symbols serves to distinguish academics, as credentialed producers of knowledge, from laypersons.

Perhaps the most vivid example of symbol systems serving as a boundary involves the use of jargon in academia. Through the use of jargon, members of the academic community can exclude non-members, thereby reaffirming their own status as community members (for a more involved discussion of jargon, see Agger (1989)).

Cohen (1985) observes that nearly all communities engage in occasional “symbolic reversals.” These are instances in which members of a community intentionally violate normative expectations and engage in activities which they ostensibly detest. He argues that these symbolic reversals serve to reinforce the existing by highlighting the social cohesion within the community. In essence, the community rallies around the violated norm.

The academic community is no exception. Take, for example, a recent incident in which a physicist submitted to a professional journal in another discipline an article consisting largely of gibberish, which was then published (see Sokal (1996)). The resulting outcry over the ethics of this act and the perceived

violation of the strongly held norms of honesty and collegial respect resulted in the reaffirmation and reexamination of these norms and concepts (especially “intellectual standards” – see Kimball (1996)), as well as what constitutes a violation.

As mentioned above, rituals are an important means of maintaining boundaries and emphasizing group membership. In the case of the academic community, one example of ritual serving to maintain group boundaries would include conferral of the doctorate. To view commencement ceremonies simply as a means of transferring the diploma from institution to graduate would be to underestimate its importance. While commencement ceremonies certainly serve this purpose, they also serve to announce to the academic community the arrival of a new member. Within the ceremony, the “hooding” of the graduate – often by their faculty advisor – serves to highlight this new membership. Additionally, this ceremony provides extant members the opportunity to celebrate and reaffirm their membership in the academic community.

While Cohen (1985) considers culture explicitly in his conception of academic culture, others view the academy as a discourse community. Beyond sharing a symbol system, discourse communities also have established means of communication, through which knowledge and cultural information are distributed (Harrison and Stephen 1995).

Academic Community as Network: Invisible Colleges

Crane (1972) examines the diffusion of knowledge in scientific communities. She notes that information is disseminated not only through the formal channels of discourse (i.e., journals, books, and conference presentations), but also through informal interaction between members of a research area. This interaction is not limited to face-to-face means, but also includes telephone conversations and mail exchanges.

Granovetter's (1973) notion of weak ties is also useful in examining academic community. Like Granovetter, Crane (1972) remarks on the value of indirect ties in the diffusion of information and influence. In the case of academic community, Crane argues that the social organization of the disciplines she examines is such that most scholars are linked to each other either directly or indirectly through informal contact, collaboration, or collegial influence on the framing of research problems.

The extension of the network perspective to the perpetuation of academic culture is relatively straightforward. Through the traditional mechanisms of discourse, the academic community is able to produce and reproduce its normative culture. Similarly, informal exchanges between members of the academic community at conferences and meetings serve to reinforce the existing culture. Thus, networks and culture go hand-in-hand when considering academic community.

VIRTUAL COMMUNITY

The rapid expansion of computer technology, particularly networking, has given rise to a new means of interaction: computer mediated communication (CMC). With CMC, people from all over the world are able to share ideas and insights about everything from sports and television shows to politics and current events.

With the diffuse nature of the Internet – both physically and substantively – how can we argue that virtual community exists? On what basis can Internauts claim commonality?

Some writers are not concerned with whether or not community exists in cyberspace – they take it as a given (e.g., Jones 1995; Rheingold 1993). Others consider the question of virtual community more carefully, usually invoking social network models.

Virtual Community, CMC, and Social Networks

Wellman, et al. (1996) contend that where computer networks link people, social networks are formed. Via electronic mail, newsgroups, LIST-SERVs, and Internet Relay Chat (IRC), these networks can provide the social support, companionship, and information resources that characterize traditional place-based communities (Wellman and Gulia 1995).

Wellman and Gulia (1995) and Wellman, et al. (1996) consider the types of social network ties that exist in virtual communities. Wellman and Gulia (1995) examine the breadth of on-line relationships. Drawing primarily on anecdotal evidence, they examine whether the ties that are formed on-line are narrowly

specialized or broad-based. They observe that in most cases, the ties formed on the Internet are specialized (see also Constant, Sproull, and Kiesler 1996). This is consistent with the generally specialized nature of participation in virtual communities.

Similarly, Wellman, et al. (1996) examine whether or not ties in virtual communities tend to be uniplex (specialized) or multiplex (broad-based). As with Wellman and Gulia (1995), they conclude that CMC offers primarily uniplex relationships. They continue, however, to note that multiplex relationships are easily formed (see also Rheingold 1993). Furthermore, many ties that are formed on-line meet the criteria to be considered strong ties: “they facilitate frequent, reciprocal, companionable, and often supportive contact without the loss of relationships that often accompanies residential mobility.” (Wellman et al. 1996 p. ?).

The Internet offers the possibility for people to involve themselves in multiple on-line communities. By subscribing to a LIST-SERV or a newsgroup, users can effectively apply for membership in a community.

INTERSECTIONS: IMPLICATIONS OF VIRTUAL COMMUNITY FOR ACADEMIC COMMUNITY

Wellman and Gulia (1995) point out that many of the people who write about the Internet make the mistake of viewing it as an isolated social phenomenon. These writers fail to account for the fact that interaction in cyberspace is only one means by which people interact with others; they do not consider the spillover

between the physical world and the on-line world. It is apparent, then, that interaction via CMC should have impact on the world of the academic community.

Naturally, the development of CMC has direct implications for scholarly collaboration. The ability to transfer text and graphics over the Internet with relative ease makes it possible for scholars from all around the globe to collaborate much more quickly and conveniently than has been the case previously.

The benefits of CMC for collaborative efforts have been documented by several authors (e.g., Carley and Wendt 1991; Freeman 1984; Harasim and Winkelmans 1990; Harrison and Stephen 1995; Slatta 1987). Despite these benefits, not all disciplines are equally likely to employ CMC in their professional work, and those that do tend to do so in different ways. Walsh and Bayma (1996) examine the use of CMC in several academic disciplines, finding that CMC usage varied by geographic dispersion and distance from the market. Where disciplines have few members that are buffered from the market and spread widely, informal CMC (e.g., e-mail, newsgroups) took on greater importance than those disciplines in which there is large membership, in closer contact with market forces. One shortcoming of this study, however, is that Walsh and Bayma (1996) consider only a small set of disciplines in the natural sciences. Expansion to social sciences and humanities could well provide greater insight into the forces shaping the use of CMC for collaborative work.

Carley and Wendt (1991) and Harasim and Winkelmans (1990) also examine ways in which CMC influences collaborative efforts. Focusing on an on-line research

group, Carley and Wendt find that rather than fostering entirely new collaborations, electronic mail serves to enhance the existing ties between researchers. Rather than fostering new types of relationships, ties that are already available are stimulated and strengthened. Likewise, Harasim and Winkelmanns find that CMC users see their interactions as being enhanced by on-line communication, but not as a replacement for existing modes of interaction. They go further, suggesting that different types of on-line communication foster different types of interaction. That is, brainstorming is encouraged through immediate response to statements (as in Internet Relay Chat), versus more reflective responses composed after more thoughtful examination of postings or transcripts.

In contrast, Freeman (1984) argues that CMC can take the place of face-to-face communication between scholars. Unlike the studies cited above which look at the effects of CMC on existing disciplines, Freeman examines the impact of CMC on an emerging discipline. He concludes that after an initial, brief, in person introduction, CMC might be capable of replacing face-to-face interaction in intellectual discourse.

While CMC greatly improves scholars' ability to work together, an important issue that arises involves intellectual property (see Garcia 1990). For example, where ideas are generated through the discourse of an on-line discussion group, authorship of ideas becomes unclear.

As it stands, copyright law recognizes the content of an electronic mail message or a posting to a LISTSERV or newsgroup as the intellectual property of

the author (Cavazos and Morin 1994). What is less clear is at what point an idea that is developed through interaction becomes the property of any one or all participants in a discussion.

Perhaps one of the most interesting implications of CMC for academic community has to do with the constant reconstruction and redefinition of culture. Because discourse and interaction can occur many times faster now than ever, and with input from more sources, academic culture can now be negotiated more rapidly than at any point in history.

Further, an implication that has yet to be explored is the removal of academic concerns from the exclusive realm of the scholar. Most LISTSERVs and newsgroups do not require special permission to join. As a result, scholarly discussion lists are not limited to scholars exclusively. Consequently, the discourse that occurs in these forums is not limited to academics.

CMC facilitates this through the relative absence of status cues (see, for example, Kiesler, Siegel, and McGuire 1984; Walther 1995). As a result, submissions by members of the discussion must be evaluated on content, rather than contributor. Consequently, by virtue of their on-line interaction with academics, non-members of the academic community now have some ability to participate in the negotiation of academic culture. What impact, if any, this ultimately has remains to be seen.

For all the benefits that CMC clearly brings to academic discourse and community, it is evident that many issues remain unresolved. Concerns over

intellectual property persist today, and show no signs of being resolved anytime soon. It is also too early to tell what impact, if any, CMC will have on the redefinition of culture within the academic community.

Conclusions

Community has undergone major changes over the past century. Not only has urbanization become an issue, but it has been compounded by concerns regarding globalization. Academic community is a global phenomenon, which is encouraged in some manner by computer technologies.

How are these two types of community related? First of all, in these cases, membership in one community does not preclude membership in another. In some ways, the virtual communities that exist in academically related on-line forums can be viewed as extensions of academic community. Many of the symbols that exist in the academic community are thus “uploaded” from physical interaction to virtual interaction. There, members of the virtual academic community can shape the symbol systems, which can then be translated back to the physical world – “downloaded.”

I have attempted to address some of the more pressing issues that derive from the intersection of these two worlds. Issues that have not even been addressed here, but which are clearly relevant, include on-line identity and representation, and whether or not CMC will result in a quintuple-stratified structure (along the lines of the related dimensions of gender, class, race, education, and information-

wealth), to name just a few. What the future holds for academics on the information superhighway remains to be seen.

References

- Agger, Ben. 1989. *Reading Science: A Literary, Political, and Sociological Analysis*.
Dix Hills, NY: General Hall, Inc.
- Carley, Kathleen and Kira Wendt. 1991. "Electronic Mail and Scientific
Communication: A Study of the SOAR Extended Research Group."
Knowledge: Creation, Diffusion, Utilization 12:406-440.
- Cavazos, Edward A. and Gavino Morin. 1994. *Cyberspace and the Law: Your Rights
and Duties in the On-Line World*. Cambridge, MA: The MIT Press.
- Cohen, A. P. 1985. *The Symbolic Construction of Community*. London: Routledge.
- Constant, David, Lee Sproull, and Sara Kiesler. 1996. "The Kindness of Strangers:
The Usefulness of Electronic Weak Ties for Technical Advice." *Organization
Science* 7:119-135.
- Crane, Diana. 1972. *Invisible Colleges*. Chicago, IL: University of Chicago Press.
- Fischer, Claude. 1982. *To Dwell among Friends: Personal Networks in Town and
City*. Chicago, IL: University of Chicago Press.
- Freeman, Linton C. 1984. "The Impact of Computer Based Communication on the
Social Structure of an Emerging Scientific Specialty." *Social Networks* 6:201-
221.
- Garcia, D. Linda. 1990. "Information Exchange: The Impact of Scholarly
Communication." *EDUCOM Review* :28-32.
- Granovetter, Mark S. 1973. "The Strength of Weak Ties." *American Journal of
Sociology* 78:1360-1380.

- Harasim, Linda M. and Tim Winkelmans. 1990. "Computer-Mediated Scholarly Collaboration: A Case Study of an International Online Educational Research Workshop." *Knowledge: Creation, Diffusion, Utilization* 11:382-409.
- Harrison, Teresa M. and Timothy D. Stephen. 1995. "The Electronic Journal as the Heart of an Online Scholarly Community." *Library Trends* 43:592-608.
- Jones, Steven G. 1995. *Cybersociety: Computer-Mediated Communication and Community*. Thousand Oaks, CA: Sage Publications.
- Kiesler, Sara, Jane Siegel, and Timothy W. McGuire. 1984. "Social Psychological Aspects of Computer-Mediated Communication." *American Psychologist* 39:1123-1134.
- Kimball, Roger. 1996. "A Painful Sting Within the Academic Hive." in *The Wall Street Journal*. New York.
- Rheingold, Howard. 1993. *The Virtual Community: Homesteading on the Electronic Frontier*. New York: Harper-Collins.
- Slatta, Richard W. 1987. "ScholarNet: The Beginning of a World Academic Community." *Futurist* :17-19.
- Sokal, Alan. 1996. "A Physicist Experiments with Cultural Studies." *Lingua Franca* :62-64.
- Tönnies, Ferdinand. 1957. *Gemeinschaft und Gesellschaft*. East Lansing, MI: Michigan State University Press.
- Walsh, John P. and Todd Bayma. 1996. "Computer Networks and Scientific Work." *Social Studies of Science* 26:661-703.

- Walther, Joseph B. 1995. "Relational Aspects of Computer-Mediated Communication: Experimental Observations Over Time." *Organization Science* 6:186-203.
- Wellman, Barry. 1988. "The Community Question Re-Evaluated." *Comparative Urban and Community Research* :81-107.
- Wellman, Barry and Milena Gulia. 1995. "Net Surfers Don't Ride Alone: Virtual Communities as Communities." .
<http://www.sscnet.ucla.edu/soc/csoc/cinc/wellman.htm>.
- Wellman, Barry, Janet Salaff, Dimitrina Dimitrova, Laura Garton, Milena Gulia, and Caroline Haythornthwaite. 1996. "Computer Networks as Social Networks: Collaborative Work, Telework, and Virtual Community." *Annual Review of Sociology* 22.