

# Computer Networks as Community Networks:

## USENET as Technological Artifact

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## Information Technology “Revolution”

STS research has widely recognized the site of the physical laboratory as the “place” where science is done, first in physics and more recently in biology, but *sometimes ignores the techno-logical artifact* that both disciplines, and many more, use to perform their work: *the computer.*

## Computer Network as Technological Artifact

The **computer**, especially as it is used in concert by scientists through the networks that emerged originally with ARPANET (1968) and later with *the “plebianization of computing”* (primarily with the 1991 introduction of the WWW by Tim-Berners Lee), **has become increasingly used by actors, scientific and otherwise, to COMMUNICATE.**

## Investigating Computer Networks as Community

The growth of communication networks through computer-mediated communication (CMC) has significant implications on how the technological artifact of computer networks integrates once isolated social projects and behavior.

Some (most notably Rheingold 1993) argue that “**online community**” has emerged as a result of these growing networks.

This communal aspect of the computer “revolution” should not be taken for granted. Rheingold noted more than ten years ago that “about two dozen social scientists, working for several years, might produce conclusions that would help inform debates [about online community] and furnish a basis of validated observation...”

**My research grounds empirically the study of computer-mediated communication as community.**

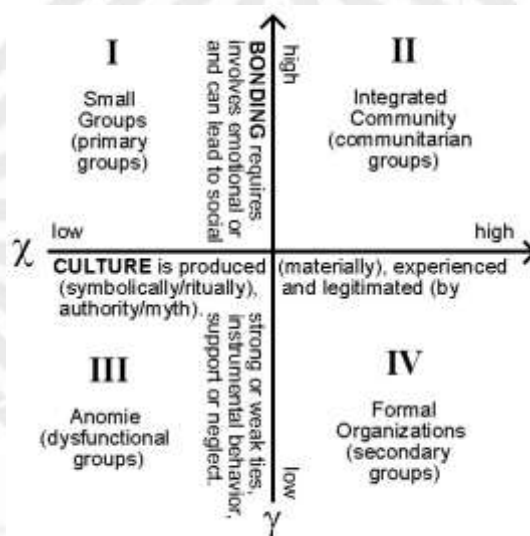
## Theory of Community

The theory I use to understand the elusive concept of community (Hillery 1968) is *Amitai Etzioni's communitarian theory*, a theory that supposes community as a social group that *balances individual rights with public goods*.

Communitarians argue that too much focus on the former results in group *anomie (normlessness and dissociation)*, whereas too much focus on the latter leads to authoritarian impulses within the group.

Furthermore, the creation of *community depends upon the development of culture (or sub-culture) and interpersonal bonding* between its members. Note that by this definition, physical place becomes moot in the construction of community.

## The Matrix of Culture and Bonding

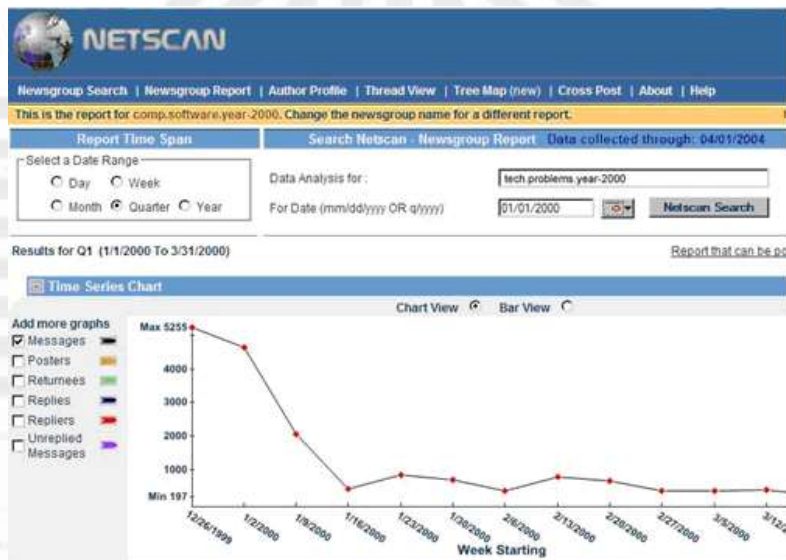


## The site and the method: Ethnography of USENET

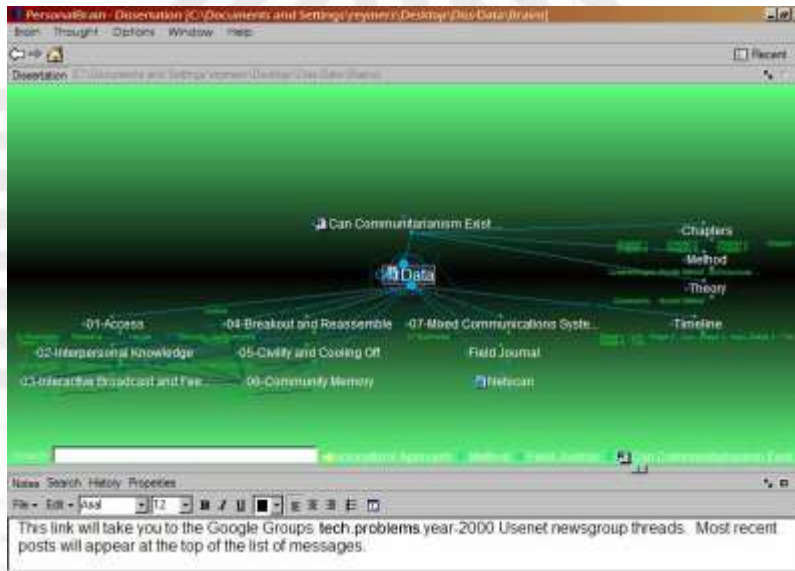
In order to apply communitarian theory empirically, I chose a USENET newsgroup initially inhabited by computer professionals (and eventually by others) which emerged in 1996 as a result of the necessity to address the real and perceived threats of the Y2K computer problem (the once-ominous “millennium bug”). The group became known by the acronym shortened from its USENET address, *t.p.y2k*.

The newsgroup was investigated both quantitatively (such as the number of messages sent over time and by user) and qualitatively (in terms of the content of the messages). The interpretive dilemma of this type of “cyberethnography” is mediated by the longitudinal nature of the research (1996-2004, involving 8 years of messages shared by unique users).

## Quantitative Data: Smith's Netscan



## Qualitative Data: *The Brain*

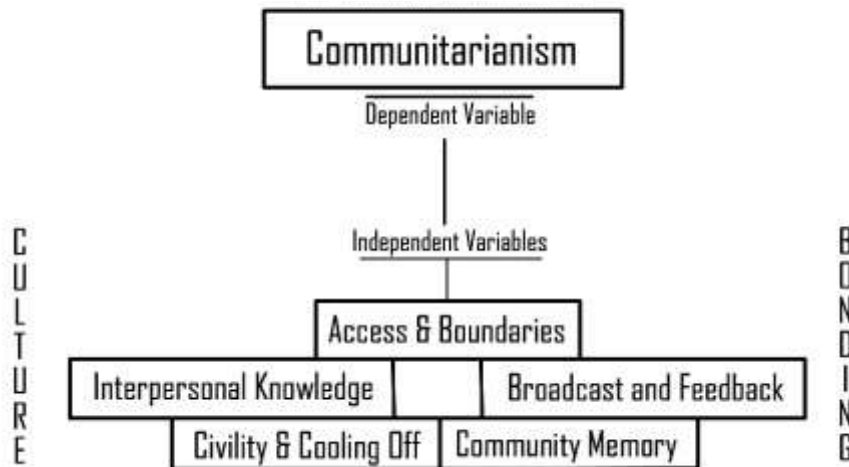


## Looking for Community Online: The Variables

Etzioni and Etzioni (1999) outline **five variables** important to the creation of culture and bonding in a social group. They are:

- 1) **Access and Boundary:** Is the group space accessible?
- 2) **Interpersonal Knowledge:** How is identity created?
- 3) **Broadcast and Feedback:** Who's doing the talking?
- 4) **Civility and Incivility:** How is conflict handled?
- 5) **Community Memory:** Does the group have a history?

## Looking for Community Online: The Variables

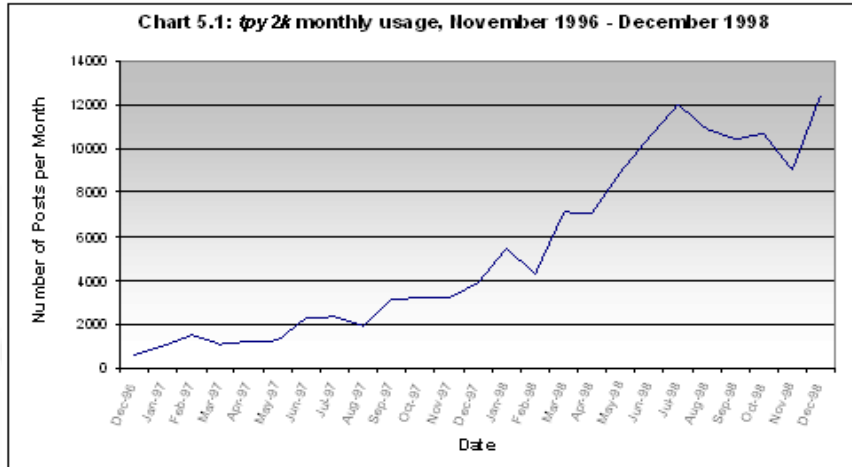


## Findings: Access and Boundary in *tpy2k*

The first year's access to the *tpy2k* newsgroup and the creation of boundaries during its early growth led to a serious rift in the online community between adherence to strictly technical questions and discussion of social and political aspects of Y2K. The emerging culture of the newsgroup changed significantly in its first year as the borders and content of the newsgroup were debated (*tpy2k vs. tpy2k-tech*).

Rather than the conflict becoming fundamentally detrimental to the newsgroup, however, the popularity of the newsgroup grew. The debate itself kept people interested in coming back to the group as a forum for the consideration of a tangible public good – remediation of the Y2k computer bug (or the lack of necessity to remediate).

## Findings: Access and Boundary in tpy2k



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## Findings: Access and Boundary in tpy2k

<u>Month</u>	<u>Posts to tpy2k</u>	<u>Posts to tpy2k-tech</u>
• Oct 1998	10689	66
• Nov 1998	9034	220
• Dec 1998	12469	149
• Jan 1999	16217	115
• Feb 1999	12601	127
• Mar 1999	12778	62
• Apr 1999	6014	64
• May 1999	8067	23
• Jun 1999	8492	42
• Jul 1999	9378	11
• Aug 1999	10366	12
• Sep 1999	9428	15
• Oct 1999	8061	50
• Nov 1999	8925	10
• Dec 1999	12049	37
• Jan 2000	11022	34
• Feb 2000	2650	11
• Mar 2000	1420	2
• Apr 2000	1609	1

Table 6.1

Number of posts by month October 1998-April 2000, tpy2k vs. tpy2k-tech

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## **Findings: Interpersonal Knowledge in *tpy2k***

According to Castells, identities “become identities only when and if social actors internalize them, and construct their meaning around this internalization. To be sure, some self-definitions can also coincide with social roles....Yet, identities are stronger sources of meaning than roles, because of the process of self-construction and individuation that they involve” (1997: 7).

The *tpy2k* actors **constructed themselves** and made themselves (and each other) uniquely identifiable through a vast multitude of text messages: **the top ten participants to the newsgroup had accumulated over 58,000 messages** in the years between the origin of the newsgroup on November 6, 1996, through April 1, 2004, with the majority coming before the year 2000 date rollover.

## **Broadcast and Feedback in *tpy2k***

The combination of broadcasting and communal feedback is what Etzioni refers to as *interactive broadcasting*. CMC offers excellent opportunities for broadcasting – the discussion forums of Usenet are specifically designed for members to address the *entire* forum. **The meaning of the forum itself is contained in this broadcasting capability.**

The narratives constructed in *tpy2k* quickly became dichotomous, opposing doom scenarios with a non-event. Those in the former category were identified as “doomsayers” and those in latter, “pollyannas.”



## Broadcast and Feedback in *tpy2k*

Doomers and Pollys, as they came to be known, had relatively equal representation in the forum.

"DOOMERS"			"POLLYS"		
	Pseudonym and Rank	# posts		Pseudonym and Rank	# posts
1	Peter Mill (2)	6990	1	MrMidat (1)	17107
2	J Frank Freleng (3)	6019	2	Marcus P. Sorenson (4)	4828
3	Harry Porasky (5)	4482	3	Doug Dock (8)	4350
4	Mike August (7)	4054	4	Timothy Frey (14)	1878
5	Michel Porter (8)	4029	5	Richard T. MacNewsome (16)	1855
6	Manly Brooks (9)	3626	6	Bob Roberts (19)	1700
7	Dan Westcreek (10)	3176	7	Ulrike Katzay (24)	1457
8	Eli (11)	2793	8	Curt Ovachart (25)	1314
9	I Sauros (12)	2610	9	Bob Summers (32)	1147
10	Eric Mantle (13)	2080	10	Alex Peertess (34)	1111
	<b>Total</b>	<b>39859</b>		<b>Total</b>	<b>36739</b>

Table 1.7

Sample of Doomer/Polly Rankings by Messages Sent between November 6, 1996 and April 1, 2004

## Civility and Incivility in *tpy2k*

Because of this dual character of the forum, argumentation was a key characteristic of the group. As the ultimate proof of either position encroached (Jan 1, 2000), the abusive rhetoric ("flaming") became fiercer, more degrading, and more imaginative, and "netiquette" was thrown to the cyber-wind.

During its third year (starting November 6, 1998), *tpy2k* became, in the words of regular Curt Ovachart, a "troll playground," as civility declined into a kind of "anarchic cooperation" (Tepper 1997).

However, the decline of civility did little to deter the group from continuing its deeper narrative of discussing the Y2K issue.

## Civility and Incivility in *tpy2k*

The relatively higher levels of incivility online are accommodated for by the relatively lower level of consequences. To make a threat online, particularly against a member who is using a clearly anonymous name, is an empty gesture.

Nonetheless, the meaning behind the threat is important. Threats indicate that there is a clear understanding that difference exists and that the difference should, in the mind of the perpetrator of the threat, be eliminated. Thus, camps emerged along the binary logic of the difference involved in the dispute; this then heightened the level of incivility.

## Civility and Incivility in *tpy2k*

Example of growing incivility:

```

From: Don Gonya
Subject: Re: Jon Doe - fuck you
Newsgroups: tech.problems.year2000
Date: 1999/08/26

JonDoe wrote:
> >> This is not a real email address, nor a real name, so
> >> don't reply via email.

Lanocoon wrote:
> >don't wanna be responsible for your lousy thoughts?

JonDoe wrote:
> Don't wanna be mailbombed by vindictive pricks like you, prick.

> You have a problem with anonymity on the internet? Wanna have a
> Hillary-Approved "Gatekeeper"? Wanna go fuck yourself?
>
> You want to indict me for my "thoughts", you fucking tin-horn
> wannabe?
>
> Fuck you, fuck your mother, and fuck the pig she rode in on.
>
> Oh, and do have a nice day.

Jon... nice to see that you're trying to restore civility to the
group with the "nice day" thing.

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## Community Memory in tpy2k after 2000

The non-event that occurred on Jan 1, 2000, slowly mediated the incivility in the group. Despite the growing level of incivility in the forum that had led up to the date rollover, the shared history that emerged in the group as a result of trading tens of thousands of messages was the focus of post-Y2K talk.

Rather than firm departures, the farewells that newsgroup members sent were an opportunity for themselves to reflect on the history of the newsgroup, as well as their connection to the creation of that shared history.

This helped to restore some of the civility lost in the previous year. The community memory revealed in these messages also helped to give the members, whether regulars, newbies, or lurkers, a sense that they had built something and that there was a foundation for their continued discussion.

## Community Memory in tpy2k after 2000

From: Mary in MA  
 Subject: "You need to be killed" Mike August's famous last words. (was re: Question)  
 Newsgroups: tech.problems.year2000  
 Date: 2000/01/25

..

Ok anyhow I know slot of people are leaving soon..

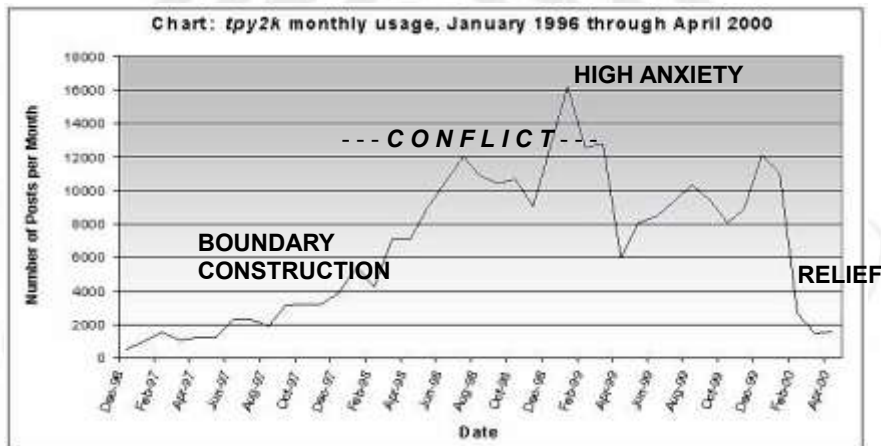
Don't think I've ever gotten to know a group of people, as well as I've gotten to know so many of you. Where the departure is so sudden, and so final. I've also never been involved in a group, where I was not well liked by all (or at least all but one or two) Hopefully it was just the atmosphere here, and not some changes in myself as a person which caused it. I'll leave, in time, believing that it was just that those who disliked me here, don't really KNOW me as a person, and judged me walking IN the door cause of the .aol.com for starters.

I've laughed so many times reading this newsgroup.. sometimes so hard my stomach hurt. I've cried a few times. And been frustrated / angry more times than I can count. But I've grown, and learned slot here. I will always look back on the time I spent here as valuable time, and not wasted time...

They other thing I enjoyed, and will miss about this newsgroup - is ranting. I've ranted live a few times ever in "real" life, here it was a weekly thing and it was \*so\* fun. Even if only a few people actually read them, they were so fun to write.

Mary

## Overall Community Construction in *tpy2k*



## Conclusion (no screen slide)

The newsgroup *tpy2k* did appear to take on the characteristics of community, based on the standards set by Etzioni's communitarian framework. Each variable of community was positively confirmed.

The research replicated the results of a number of other online community studies as well. Nancy Baym's finding that "not only can CMC participants have identities, they can have relationships with other participants" was clearly borne out. The idea of "play" online, particularly in relation to flaming and trolling, is similar to Shelley Correll's conclusion that "although findings support some of the main tenets of interactionist and ethnomethodological theory, at the same time they call into question the distinction between reality and fantasy and challenge the traditional notion of community."

## Conclusion

Whether or not the Pollyannas and the Doomers actually contributed to solutions to the millennium bug (and it could easily be argued that they *did*, as *tpy2k* was likely the most participatory Y2k group on the Internet), the intention of contributing to the public good was what brought the group into existence and what allowed it to flourish in the years prior to Y2k.

Conversations regarding the moral aspects of Y2k, as discussed in threads like “Moral obligation to work on Y2k?” (April 29, 1998) and “The moral dimension of Y2K” (December 15, 1998) helped the group members to navigate through the end of the millennium. Dialogues regarding responsibility to one’s community, as in the threads labeled “Community and Responsibility” (March 14, 1998) and “Y2K and Social Responsibility” (May 15, 1998), also fostered a sense of communitarian organization and understanding in the newsgroup.

Although not everyone subscribed to a communitarian perspective, the differences allowed for deeper debate regarding these issues. Not knowing what would happen as a result of the millennium bug, the group members did their best to impute and share the best course of action in their own opinion.

## Conclusion

Furthermore, a basic premise of the community concept is contribution to the public good. In his revision to *Anarchy and Cooperation* (1976) titled *The Possibility of Cooperation* (1987), political scientist Michael Taylor outlines a critique of the justification of the state as the only institution that can deliver the public good. He defines the public good as “a good or service that is in some degree indivisible and non-excludable” (1987:5). The public good that the members of *tpy2k* were pursuing certainly fell under that category: to protect the computer infrastructure that we depend upon in our day-to-day lives (in banking, in electrical supply, in water purity, in nearly every workplace – it is difficult to think of an aspect of daily social life that is *not* influenced by computerization). This, at least, defines the public good that most of the technicians and Pollyannas pursued. More subtly, most Doomers perceived their contribution to the public good as recognizing the imminent *failure* of such systems and proselytizing proactive survival steps to avoid panic and the inevitable collapse of civilization scenario that would come with an immediate collapse of computer infrastructure. Though they were wrong, it was clear their contribution to the sustenance of their community and their society was genuine.

## Conclusion

Finally, through understanding the “cooperative anarchy” (Tepper) of “networked individualism (Wellman) established by *tpy2k*, the technological artifact of online community creates:

- 1) an allowance for the disagreement that occurs between scientists (Beck) to become traditionally “uncivil” without the face-to-face consequences of incivility;
- 2) a connection of scientists to a political community which bypasses the traditional structures of the laboratory and of the state to connect to and be questioned by citizens.

## Conclusion

“Our families, our communities, and our culture make us what we are. And once we are what we are, we are still unthinkable outside the groups with whom we live...So, if a new infrastructure comes along that allows us to connect with everyone else on the planet and to invent new types of connections, this is big news indeed.”

– David Weinberger (2002), [Small Pieces Loosely Joined: A Unified Theory of the Web](#)

*This talk was based on the dissertation*  
**Communitarianism on the Internet:**  
**An Ethnographic Analysis of the**  
**Usenet Newsgroup *tpy2k*, 1996-2004**

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