Voices from the WELL:
The Logic of the Virtual Commons

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Its hard enough to love someone
when they're right close at home
don't you think I know its hard honey
squeezing sugar from the phone

- Bonnie Raitt
The Road's My Middle Name,
from Nick of Time, Capitol Records

ABSTRACT: The recent development of virtual communities, sites of social interaction predominantly mediated by computers and telecommunications networks, provides a unique opportunity to study the mechanisms by which collectivities generate and maintain the commitment of their participants in a new social terrain. Using the analytical framework developed in studies of intentional communities and collective action dilemmas, this paper examines the unique obstacles to collective action and the commitment mechanisms used to overcome them in a particular virtual community, the WELL. Drawing upon ethnographic and interview data, this community is evaluated in terms of the community's capacity, or lack thereof, to overcome obstacles to organization and elicit appropriate participation in the production of desired collective goods.

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Introduction: Social Dilemmas in Virtual Spaces

A virtual community is a set of on-going many-sided interactions that occur predominantly in and through computers linked via telecommunications networks. They are a fairly recent phenomena and one that is rapidly developing as more people come to have access to computers and data networks. The virtual spaces constructed by these technologies are not only new, they have some fundamental differences from more familiar terrain of interaction. Virtual spaces change the kinds of communication that can be exchanged between individuals and alter the economies of communication and organization. As a result many familiar and common social process must be adapted to the virtual environment and some do not transfer well at all. One aspect of interaction remains constant however; virtual communities, like all groups to some extent, must face the social dilemma that individually rational behavior can often lead to collectively irrational outcomes. The purpose of this paper is to begin to examine how community and cooperation emerges and is maintained in groups that interact predominantly within virtual spaces.

As yet, virtual communities are somewhat esoteric and have attracted only limited attention from the social science community. Many questions about virtual communities remain unanswered, and many more unasked. No detailed work has yet addressed the questions, for example, of how virtual communities form and mature, how relations within these communities differ from relations in "real-space", or how the dynamics of group organization and operation in virtual communities differs from and is similar to communities based upon physical copresence. But like their real-space counterparts, virtual communities face the challenge of maintaining their member's commitment, monitoring and sanctioning their behavior, ensuring the continued production of essential resources and organizing their distribution. The dynamic and evolving character of these groups provides a unique opportunity to study the emergence of endogenous order in a group. Simultaneously, the novel aspects of interaction in virtual spaces offers an illuminating contrast to interactions that occur through other media, including face-to-face interaction.

Many communities have the potential to organize their members so as to produce a collective good, something that no individual member of the community could provide for themselves if they had acted alone. Some goods are tangible, like common pastures or irrigation systems, others are intangible goods like goodwill, trust, and identity. However, this potential is not always realized. As Mancur Olson noted, "if the members of some group have a common interest or objective, and if they would all be better off if that objective were achieved, it [does not necessarily follow] that the individuals in that group ... act to achieve that objective." (p. 1, 1965) There are many obstacles that stand in the way of the production of collective goods and even success can be fragile, especially when it is possible to draw from a good without contributing to its production. Nonetheless, despite arguments to the contrary (Hardin, 1968), many groups do succeed in producing goods in common. And, as Elinor Ostrom's work illustrates, some communities have succeeded in doing so for centuries (1991). The question this raises is:

what contributes to the successful provision of collective goods? How is cooperation achieved and maintained in the face of a temptation to defect?

Virtual communities produce a variety of collective goods. They allow people of like interests to come together with little cost, help them exchange ideas and coordinate their activities, and provide the kind of identification and feeling of membership found in face-to-face interaction. In the process they face familiar problems of defection, free-riding and other forms of disruptive behavior although in new and sometimes very unexpected ways. The novelty of the medium means that the rules and practices that lead to a successful virtual community are not yet well known or set fast in a codified formal system.

Cyberspace and Virtual Worlds

Virtual interaction is often said to occur in a unique kind of space, a *cyberspace*, constructed in and through computers and networks. This term was coined by William Gibson in his visionary novel Neuromancer. Gibson described a new technologically constructed social space in which much of the commerce, communication and interaction among human beings and their constructed agents would take place. In the novel Gibson gives his own description of cyberspace,

```
"Cyberspace. A consensual hallucination experienced daily by billions
of legitimate operators, in every nation... a graphic representation of
data abstracted from the banks of every computer in the human system.
Unthinkable complexity. Lines of light ranged in the nonspace of the
mind, clusters and constellations of data. Like city lights,
receding"[1]
```

Gibson's cyberspace remains in part in the realm of science fiction. But much of what he described has already taken on very real form. The global interconnection of computers via phone and data networks has created the foundation for a seamless system of communication between machines designed specifically for the storage and manipulation of signs. Cyberspace, then, can be understood as a vast territory[2], a space of representations.

While human beings have inhabited representational spaces for a very long time, we have never been able to create representations with the ease and flexibility possible in cyberspace. This is important because with each new development in the technologies of representation, from the printing press to satellite communication, there has been a reworking of the kinds of representations and social relationships that are possible to maintain.

Gibson envisioned cyberspace as two related technologies, the first provided the individual connecting to cyberspace with a complete sensorium, enclosing the user in a totally computer generated reality. Connected directly to a computer, wires connected directly to the nervous system, an artificial set of sense data would be constructed and delivered to a credulous mind. The fact that no such technology yet exists does not

invalidate Gibson's vision, mistaking far less sophisticated representations for reality is already common and does not require such complex technology. Nonetheless, research and development of this kind of technology is advancing rapidly, compelling visual cyberspaces (often termed "photo realistic") are available now and will become widespread after the further refinement and decline in the cost of processing power. Direct contact between a machine and a human mind may be a bit further off, but is a subject of research that has promising and disturbing implications. In contrast, the second element of Gibson's cyberspace is very much a reality. This is the *matrix*, the densely intertwined networks of networks, lines of communication linking millions of computers around the world. While sensual cyberspaces may have profound effects on our perception and understanding of reality, even when limited to the comparatively pedestrian medium of text, the matrix is already having visible effects.

Computer networking was pioneered by the United State's Defense Department's Advanced Research Projects Agency (ARPA) which funded the development of the first wide area network (WAN), the ARPANET, in 1969. The ARPANET has since grown exponentially and inspired many additional networks. It has since been integrated into the INTERNET (1983), a globe spanning "network of networks" supporting over fifteen million users. The ArpaNet/INTERNET was joined by the USENET (1979), the BITNET (1981) and the FIDONET (1983). These large scale networks are supplemented by the proliferation of independent Bulletin Board Systems[3] (BBSs) run from individual microcomputers and medium to large-scale information services like Compuserve, GEnie, and the WELL. While not all of these networks are unified or managed by a single regulating body, many are interconnected: users on one network can often utilize many of the resources available on the others through gateways. This list does not exhaust the number of networks in existence, John Quarterman's 1990 book on the subject, The Matrix, lists over 900 networks. That number may already be surpassed.

Within these vast networks interconnections of another kind have formed: social networks of people who have come together virtually, that is via computers and networks, to interact with others for a myriad number of purposes. A number of methods exist to facilitate communication between individuals and groups via these networks. The simplest is electronic mail (email). Email allows for one-to-one or one-to-many communication between any individuals who have a valid email address on the same network or on a network that can be gatewayed to. Effectively, this means that some 15 million people are accessible to one another instantaneously and without regard for distance. Using tools to enhance email, some groups have created "lists" than ease the process of collecting email addresses. Some lists provide a single address for mail that is to be forwarded to every member of the list. The largest of these lists have as many as 15,000 subscribers located all around the planet. At last check, there were more than 2,400 lists carried on the INTERNET alone on subjects ranging from dentistry to religion to quantum physics. New lists are created on a daily basis while some old lists fall inactive. Conferencing systems, information services and BBSs fill out the range of virtual communications. These systems share a great deal in common, differing mostly in terms of size, commercial status, and focus. These systems tend to be centralized, that is supported by computers at a single location although accessed by computers all over the

world. Conferencing systems focus on providing the tools for the facilitation of discussions. BBSs and information services do this as well, but additional emphasis may be placed on services like software libraries, weather and stock reports, and airline reservations. Often information services are operated on a for-profit basis.

Whichever system people use, they frequently develop relations with other users that have some stability and longevity. This should not be surprising considering the ease with which network systems allow individuals to find others with like interests. Networks are in many ways dynamic electronic "Schelling" points (Schelling, 1960). In The Strategy of Conflict, Schelling developed the idea of natural and constructed points that focus interactions, places that facilitate connections with people interested in a participating in a common line of action. The clock at Grand Central Station is an example, as are singles bars and market places. Each is a space designated as a point of congregation for people of like interests. Networks enhance the flexibility of Schelling points by radically altering the economies of their production and use. Members of these virtual social networks frequently identify their groups (and groups of groups) as "virtual communities". The use of the term "virtual" may be confusing for those who do not know its use within the computer literate community where "virtual" is used to mean "in effect", a surrogate. For example, virtual memory is not memory in the conventional sense, it is not composed of memory chips, but is instead the use of a hard drive to simulate chip-based memory. In the context of community, then, the term is used to emphasize not the ersatz nature of the community but rather that a seemingly non-existent medium is used to facilitate and maintain one. Virtual communities are communities "in effect". The use of the term "community" to describe these social formations may be contested, but it is the argument of this paper that virtual communities are indeed communities.

Virtual communities developed soon after the first computer networks were created in the late 1960s. But it was not until the wide proliferation of microcomputers in the late 1970s that there were enough computer owners to create collective organizations outside of the defense and military establishment. Often fairly small, many groups used Bulletin Board Systems run as non-profit collective goods to facilitate their interactions and exchanges. In addition to local non commercial or semi-commercial BBSs, large systems, used by tens of thousands of individuals, most notably Compuserve, GEnie, Prodigy, America On-line, and the WELL have been created and run for profit. Despite the fact that both kinds of systems provide mostly the exchange of unadorned text, users of these systems have come to feel that they participate in a community that fulfills many of the roles more commonly found in traditional face-to-face communities. Interaction in virtual spaces share many of the characteristics of "real" interaction, people discuss, argue, fight, reconcile, amuse, and offend just as much and perhaps more in a virtual community. But virtual communities are also starkly different. In a virtual interaction nothing but words are normally exchanged. Interaction involves the creation of personality, nuance, identity and "self" with only the tools of texts[4]. But the differences may not be as sharp as they first seem, as Erving Goffman showed, real life too is an act of authorship, of constant image management and careful presentation. Face-to-face interaction is a rich canvass with which to paint, but it is one loaded with the indelible "stigma" of social identities. In a virtual world participants are washed clean of the stigmata of their real "selves" and are

free to invent new ones to their tastes. Escape is not total, however, participants are revealed in virtual communities, they "give off" as well as give signals as happens in face-to-face interaction, but with a far more reliable mask. This is just one way in which virtual interaction and virtual communities differ from "real" ones.

These differences do not necessarily exclude virtual communities from the category of legitimate communities. While interaction with a virtual community is peculiar in many ways, this does not mean that very familiar kinds of social interaction do not take place within them. Rather, it is the ways that common and familiar forms of interaction are transplanted into and transformed by virtual spaces that is of particular interest.

Cyberspace and Virtual Worlds

Method

This paper offers a structured ethnographic account of the production of collective goods in a virtual community, of the processes that maintain those goods and the processes that block or disrupt such production. It is structured broadly by the theories of collective action dilemmas and seeks to address some general theoretical claims made by that school of theory. I have let these theories direct my ethnographic data collection and will use them to frame and analyze that data.

Ethnographic data was drawn from a single virtual community, the Whole Earth 'Lectronic Link (WELL). The WELL is a relatively old virtual community, established in 1986 by the Point Foundation. The WELL is a for-profit organization, access is billed at two dollars per hour. It is physically located in Sausalito, California and is composed of four Sequent computers, an array of disk drives providing four gigabytes of storage, and multiple telephone and Internet connections. It is currently used by over 6600 people located all over the world although a large majority of the users live in the San Francisco Bay area[5]. The WELL is not the only virtual community, nor is it necessarily the model for all the others that exist. As a result the generalizability of conclusions drawn from the WELL is not certain and comparative analysis is certainly called for. However, this is beyond the scope of this paper. Nonetheless, the WELL has pioneered and developed the concepts and practices of community in a virtual space, making it a useful starting point for an analysis of this phenomena.

I collected data by logging into the WELL from my personal computer, using the UCLA connection to the Internet to connect me with the WELL. Unlike face-to-face interaction, interaction through the WELL produces a fairly durable artifact, indeed it could be argued that interaction takes place through the construction of artifacts that are then made publicly visible. This allowed me to collect faithful records of interactions among a wide variety of groups and over a large period of time. The artifactual remains of interaction in the WELL go beyond audio and video recordings of interactions in that no aspect of the interaction is missed. However, the subjective meanings that were constructed in these interactions must reconstructed just like audio and video records.

The WELL is structured by software called Picospan which organizes interaction into a series of conferences which may have any number of subordinate topics. There are currently 223 public conferences open to any user of the WELL, each of which may have anywhere from 1 to 500 or more sub-topics. Data was collected by copying contributions to public conferences to files that were then transferred back to my personal computer for examination and analysis. The WELL also offers a variety of back-channels of communication. Users may email one another or open private conferences that are accessible only to those who are invited by their owner. The contents of email and private conferences were not available to me.

To illustrate certain significant processes, I will present segments of interactions that took place in the WELL. I will set off materials drawn from the WELL in the following manner:

```
Topic 1050: Experts On The WELL
# 57: Banter with a strange device (jrc) Thu, Sep 17, '92 (15:38) 5
lines
the key between "f" and "h" on my old keyboard broke, so I can't move
to any conferences. My new keyboard doesn't wanna work. I may commit
indecencies, but I'll have to do them ri'ht here.
```

I will always present the entire posting and have not edited any of the contents. However, posts are single turns in a much larger and longer series of exchanges. Due to the length of most topics, it is necessary to lift particular posts out of their series and highlight them. In so doing I will attempt to summarize the context of the posting as faithfully as possible.

In addition to reading and selecting posts from WELL conferences, I engaged in a series of interviews with participants of various interactions of particular interest. Interviews were carried out "on-line", that is through email or in a public conference. Some additional information was gathered through telephone conversations with members of the WELL community. In addition, I attended the WELL's Summer Picnic, held in San Francisco on July 19, 1992, one of the occasional face-to-face meetings organized by members of the WELL. This meeting allowed me to gather information about the social status of WELL members that could not easily be derived from contact via the WELL itself.

Data was collected and examined in terms of its relevance to the central theoretical assumptions and conclusions of collective action theory. In particular, I looked for examples of individuals being encouraged to participate, the returns on participation, and the kinds of *disruptions* that raise the question of *monitoring* and *sanctioning* systems. These aspects address the construction of commitment in the virtual community and mechanisms that are enacted to maintain and defend it against the endemic temptations

that threaten to dissolve the systems that maintain the collective goods produced in the WELL. At each point, the unique character of virtual interaction will be highlighted to illustrate the special challenges and opportunities of this terrain.

This paper will proceed in three stages. First, because many people have as yet never experienced virtual spaces, I will provide a description of the development of networks and systems like the WELL. This description will be further elaborated in the following sections. Next, I turn to the theories of community and collective action. Finally, I will examine specific data drawn from the WELL in terms of the theoretical framework developed in the preceding section.

Cyberspace and Virtual Worlds

The Structure of the WELL

The WELL is in many ways a single program called Picospan. Written by Marcus Watts in 1984 and since refined and embellished by many others, Picospan constructs and maintains a hierarchy that sorts and identifies messages created by its users (see appendix A for a schematic diagram of the WELL). As a result of its segmented architecture, Picospan allows thousands of individual discussions to progress simultaneously without loss of coherency or much limitation on the activities of individual participants. At the top most level of the Picospan hierarchy are *conferences*, broad subject categories of interest. Conferences include subjects such as current events, telecommunications, agriculture, erotica, philosophy, and over two-hundred others at the time of this writing (see appendix B for a list of all current conferences). Picospan is noted for its flexibility and openness to individual control. While conferences can be created only with special permission, any user, from the oldest hand to the newest user, can create a new topic with the use of a single, simple command. This power allows interaction in the WELL to share the phenomena in conversation whereby the topic shifts from subject to subject. The difference in Picospan is that more than one subject may be maintained at one time: as new topics are spawned, new "threads" are added to the conference while old conferences are sometimes deleted or removed to an archive after a long period of inactivity. Within each conference there many be anywhere from one to many hundred *topics* (see appendix C for a list of topics in the "Virtual Communities" conference). A topic is often more specific than a conference. All contributions to a conference are placed in one topic or another at the discretion of the individual contributor. A *posting* is an individual's contribution to a topic. A posting can be anywhere from zero to many hundreds of lines of text, although the average posting is approximately eight-lines in length. Individuals post their contributions serially, following all other contributions that have already been made to a topic.

A posting is always accompanied by a header generated by Picospan. In this sample posting:

```
Topic 1050: Experts On The WELL

# 3: Stephen David Fishman (sfish) Tue, Sep 15, '92 (12:26) 2 lines

I have a Mac LC with a Seiko color monitor. All of a sudden the picture
has

started shaking. What could be causing this? (It's very annoying.)
```

---

the top line identifies the number of the topic within its conference[6]. This posting was drawn from the News conference, one of the oldest and most heavily used conferences in the WELL. Following the topic number is the topic title. Topics are given titles by their creators. Any WELL user may create a new topic at any time in any public conference using a single command. The second line of the topic header identifies the number of the posting in the topic. Each posting is added to the topic and numbered serially in chronological order. Following the posting number is the pseudonym, this is a line of text that the poster may change to anything they want. Often, as in this case, the "pseud" is the full name of the poster, however this is not always the case. Many members change their pseudonym to contain a nickname or some meta-commentary on their posts or the posts of others. For example,

---

```
Topic 1050: Experts On The WELL

# 4: Will Work for Pay (chuck3) Tue, Sep 15, '92 (13:19) 1 line

The blow dryer. (Or any squirrel-cage motor like that.)
```

```
Topic 1050: Experts On The WELL

# 7: Cosmic litterbox (darlis) Tue, Sep 15, '92 (14:48) 2 lines

And -- this is silly, I know, but -- have you checked to be sure that
all

the connectors are plugged in nice and tight?
```

The word in parentheses is the "userid", a unique identifier that is stamped on every contribution the member makes in the WELL. While the pseudonym is modifiable by the member, the userid is not. There have been some cases in which member's changed their userid with the cooperation of WELL management or by opening a new account, userids remain a fairly stable marking. Finally, the posting is time and date stamped and the

length of the posting noted. The length is important as a signal to the reader about how much of their attention this posting will take. Since there is virtually no limit on the length of a posting, some members contribute hundreds of lines (either of their own words or transcriptions from other sources). WELL etiquette calls for very long posts to be "hidden" although this does not happen as often as some members claim it should. Hidden posts display only the header when read normally. Members must explicitly request the contents of a hidden post, allowing them to skip over long contributions.

Each conference is managed by a conference host, an individual or small group that attends to the technical and social management of the conference's contents. Hosts encourage participation, guide the discussions, and are sometimes deferred to in conflicts. Hosts do wield significant powers not available to non-host participants. Hosts may exclude a member from access to their conference, may "freeze" a Topic (making additional contribution impossible), and generally hold some moral authority as a result. The WELL's guidebook for hosts defines the powers of a host as:

```
The host of a conference has the right and power to censor responses,
freeze Topics, retire Topics and kill (delete) Topics where he/she sees
fit. The host of a conference also has the right to ban users whom the
host judges to be nuisances within his or her conference from further
participation in that conference. This is a serious move and should be
discussed in the Backstage conference before being undertaken. For lack
of other technical means, "banning" can be enforced by censoring
postings of the banned user.[7]
```

However, the use of these powers by hosts is subject to extensive informal social controls and are, as a result, rarely used without careful consideration. The issue of the powers weilded by hosts will be addressed below. Any member of the WELL may enter any public conference and post a contribution to any Topic. In addition any user may create new Topics. New Topics are frequently generated but not all attract attention.

Each member of the WELL has certain rights, some that are a product of the architecture of the Picospan program and some that have been developed and refined through many years of discussion and conflict. Most central is the member's right to control the use of their contributions. The principle is identified by a phrase often used in the WELL and posted at its main "entrance": "You Own Your Own Words" (YOYOW) (Figure1.).

```
Type your userid or newuser to register

login: msmith

Password:

Last login: Mon Jun 1 11:57:26 from julia.math.ucla.

DYNIX(R)
```

```
Copyright 1984 Sequent Computer Systems, Inc.

You own your own words. This means that you are responsible for the

words that you post on the WELL and that reproduction of those words

without your permission in any medium outside of the WELL's
conferencing

system may be challenged by you, the author.

===================================================================

For a recorded message with WELL System Status information call:

1-800-326-8354 from within the 48 contiguous United States.

===================================================================

** The WELL will be off-line for BACKUPS, Wednesday, June 3

** from 4:30am PDT until approximately 09:00am PDT

This is a schedule change from the previously announced

downtime we had planned from 4 till 9 am Tuesday.

===================================================================

PicoSpan T3.3; designed by Marcus Watts

copyright 1984 NETI; licensed by Unicon Inc.
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Figure 1. A sample WELL login screen.

This means that no other user, including hosts and staff, may alter the words a member enters into the WELL. Users may not edit their words once posted, although they may delete them entirely through a command known as "scribble". These norms and restrictions are intended to rule out revisionism, abuses of power and censorship.

Cyberspace and Virtual Worlds

The Character of Virtual Space

A virtual space has some generic qualities that distinguish it from the space of face-to-face interactions. In many ways virtual communities are modern incarnations of the committees of correspondence of the eighteenth and nineteenth century. Like those groups formed around the political and scientific interests of the day, virtual communities are composed of groups brought together by a common interest and separated by potentially great distance. However, unlike the committees, virtual communities are not limited by the speed of man on horseback or even the steam engine, but are granted near instantaneous communication by the speed of computers and data networks. The increased speed and the unique qualities and powers of computer network based communication makes the dynamics of virtual communities distinct from committees of correspondence. The differences in the medium of communication have effects on the kinds of interactions that can take place and how the interactions that do occur can progress and unfold. For example, slow media that introduce long delays into turn-taking reduces the interactively of an social exchange and can lead to more cautious (and thus, perhaps, more detailed and exact) messages. Media can vary in terms of the ambiguity they introduce to the messages passed through them. Some media provide a certain audience, that is the target of a message can be selected without fear of additional surveillance. If you do not know who might be in the room it makes sense to watch what you say. Further, some media prevent the identity of message creators to be known with certainty if at all. With so much variation in different kinds of media it is not hard to imagine that their character alters the kinds of messages that are sent through it, and, by extension, the kinds of social action and interaction that will develop around it.

This is not technological determinism, but rather a solid materialism: technologies change the fabric of the material world which in turn changes the social world. The terrain of interaction in virtual communities is different in some powerful and subtle ways, some forms of interaction translate well into a virtual space, others do not. In all cases, people are actively drawing upon their understanding of interaction and improvising in the gaps, some of which are cavernous.

There are six aspects of virtual interaction that have a significant impact on the kinds of interaction that can take place within them. First, virtual interaction is *aspatial*, increasing distance does not effect the kind of interactions possible. As a result the economies of copresence are superseded and assembly becomes possible for groups spread widely across the planet. This may have profound implications on the organization of space; just as the telegraph enabled the construction of the modern multi-national corporation by solving the problem of control from a distance, virtual spaces may undermine the economies that lead to the development of cities. Indeed, there is a growing movement for the relocation of many business activities to rural areas. This is made possible by the ease and economy of electronic communication that makes any space as good as any other. As a result criteria other than proximity can determine the selection of sites for various activities. Second, virtual interaction via systems like the WELL is *asynchronous*. While not all virtual interaction is this way (notable exceptions include the IRC[8] system and the growing proliferation of MUDs[9]), conferencing systems and email do allow interaction partners to participate in a staggered fashion. One person leaves a message and at some other time another reads and responds to it. This has a

major impact on the coordination necessary for the assembly of a group. Face-to-face interaction requires a high level of coordination since all participants must be copresent in both time and space. Conferencing systems, by contrast, allow people separated by time zones, work schedules, and other activities to interact with minimal coordination. Despite the lack of immediate interaction, the interactions created in many conferencing systems do exhibit a high level of responsiveness and dynamism usually associated with real-time interaction.

The current text-only nature of most virtual interaction leads to another unique aspect: without copresence, participants are *acorporal* to one another. This may have profound implications since many of the process of group formation and control involve either the application or potential for application of force to the body. In a virtual space, there are no bodies. As noted before, while the communications "bandwidth"[10] of most communities is quite rich and capable of nuance and fine texture through the use of communications devices like voice, gesture, posture, dress, and a host of other symbol equipment, most virtual communities allow their participants to signal each other only through the use of text.

The absence of the body in virtual interactions might lead some to dismiss the possibility of virtual *community.* Indeed, interaction in a virtual space has been described as "having your *everything* amputated"[11] Rather than preclude the formation of community, however, the effective absence of the body in virtual interaction simultaneously highlights the role of the body in real-space while liberating the individual from many of the restrictions inherent in bodies. And while telephone conversations are also acorporal, virtual communities also have the capacity to facilitate the interaction of large groups of people, far beyond telephone conferencing could reasonably support. Further, as noted above, because participants are not limited to real-time interaction, the task of coordinating interaction participants is greatly eased. In addition, the qualities of being aspatial and potentially asynchronous expands the pool of potential participants of virtual communities beyond that of most space-bound ones. It is not uncommon to settle into a long and satisfying discussion with someone who lives on a different continent while in a virtual community. But without the power of presence to enforce sanctions and evoke communion, written and virtual communities face unique challenges, a point I will take up again in this paper.

Closely related to the acorporeality of virtual interaction is its limited "*bandwidth*" . Most users of the WELL and other virtual communities use computers equipped with telephone-line interfaces (modems) that allow for the exchange of information at speeds of 2400 baud (bits-per-second) to 14,400 baud. These speeds effectively limit the quantity of data that can effectively be transmitted. As a result interaction in virtual communities remains firmly entrenched in a text-only environment. This has some interesting effects. The first is that virtual interaction is relatively *astigmatic*. As Goffman used the term, stigma are markings or behaviors that locate an individual in a particular social status. While many stigma can have negative connotations, stigma also mark positively valued social status. Without the ability to present ones self to others in virtual interaction, many of the stigma associated with people are filtered out. Race, gender, age,

body shape, and appearance, the most common information we "give-off" to others in interaction, are absent in a virtual space. The result can be both positive and negative: the information we give-off helps to coordinate social interaction, identifies likely interaction partners, and may serve to minimize conflict by identifying likely antagonisms. Without such signals additional work must be done to enable interaction and to signal status and location to other potential interactants. At the same time, this limitation makes discrimination more difficult. The result may be that participants judge each other more on the "content of their character" than any other status marking.

Finally, the preceding five characteristics combine to make virtual interaction fairly **anonymous**. This leads directly to issues of identity in a virtual space. In many virtual spaces anonymity is complete. Participants may change their names at will and no record is kept connecting names with real-world identities. Such anonymity has been sought out by some participants in virtual interactions because of its potential to liberate one from existing or enforced identities. However, many systems, including the WELL, have found that complete anonymity leads to a lack of accountability. As a result, while all members of the WELL may alter a pseudonym that accompanies each contribution the make, their userid[12] remains constant and a unambiguous link to their identity. However, even this fairly rigorous identification system has limitations. There is no guarantee that a person acting under a particular userid is in fact that person or is the kind of person they present themselves as. The ambiguity of identity has led some people to gender-switching, or to giving vent to aspects of their personality they would otherwise keep under wraps. Virtual sociopathy seems to strike a small but stable percentage of participants in virtual interaction. Nonetheless, identity does remain in a virtual space. Since the userid remains a constant in all interactions, people often come to invest certain expectations and evaluations in the user of that id. It is possible to develop status in a virtual community that works to prevent the participant from acting in disruptive ways lest their status be revoked.

Click here for Picture

Figure2. Summary of defining characteristics of Virtual Communities.

The arrow denotes a derivative effect. Theory

In this section I will examine some work that bears closely on the development and dynamics of the WELL. A significant body of theory has developed to address the question of collective action and the provision of collective goods but first I should note that there has been some useful and high quality research on the role of electronic communication in groups. The effects of email on organizations has been discussed by Zuboff (1988), Kerr and Hiltz (1982), and Chesebro and Bonsall (1989). Generally, their studies have been limited to an examination of email and their findings to the fact that electronic communication alters the hierarchy of communication within organizations, often resulting in shifts of power. These works offer some insight into virtual communities but suffer from one short-coming: all concern themselves with organizations in which order has been imposed by an external force. Most of the email

systems studied have been inserted into existing institutional structures and thus offer little insight into the emergence of new collectivities or their maintenance through the use of electronic communication. The virtual community studied in this paper does not have an over-arching institutional structure to explain why its members are present or to offer an external source of power for imposing order on the interactions found within themselves.

As a result, the central questions asked by theories of collective action are underscored: how is order achieved and maintained in the absence of external authority? The common appeal to external authority simply begs the question of order for two reasons. First, there is the empirical evidence of groups endogenously creating the order they need to produce and consume the goods they need and want. Second, appeals to external authority ignore the second order cooperation necessary for the existence of the external authority. Endogenous order is logically prior to exogenous order.

Cyberspace and Virtual Worlds

Theories of Communities and Collective Action

The term community is ambiguous. It is used to describe groups that range from neighbors to nations and levels of solidarity from the personal to the professional. Generically, a community can be understood as a set of on-going social relations bound together by a common interest or shared circumstance. As a result, communities may be intentional or unintentional, a community's participants may purposely join together or be thrust into membership by circumstance. Intentional communities are of particular interest because they raise more questions about the reasons and causes for their emergence than do unintentional ones. Where unintentional communities are amenable to structural explanations, economic, social, and political forces are often directly evident, explaining intentional communities requires an inquiry into the motives of its participants.

Despite the ease with which the term is used, there is no single characteristic that easily defines what a community is or identifies a particular social formation as a community without ambiguity. The level of solidarity evident in a community, for example, can vary greatly and communities can often be competitive rather than cooperative. While the term community is often associated with the notion of cooperation and collective contribution to a common good, exclusive focus on this aspect of community obscures the fact that communities, even those clearly engaged in the construction of collective goods, are frequently marked by conflict and divisiveness. Nonetheless, the presence of cooperative action is indeed a distinguishing mark of communities; a community can be said to have failed when it is no longer able to foster any cooperation among its members.

Network theory, by providing useful tools for the illustration of the structure of communities, may be able to provide more exact definitions of community in the form of particular geometries of social networks. Communities might be definable as a set of overlapping networks of communication that remain stable for some duration and, in

their intentional form, are capable of acting collectively towards a particular end. Strong communities might be marked by high levels of interconnectivity and frequent interaction along those network connections. By contrast, networks that are arranged in severely hierarchical forms along the lines of a formal organization do not fulfill one of the commonly held conditions of community: while communities may certainly have governing bodies and be stratified, they are not normally rigidly or formally structured. The dynamism of a set of social interactions and the autonomy of their participants may help distinguish a community from other otherwise similar social groups. Most importantly, a network model may be able to empirically illustrate what may be the single defining characteristic of a community: **boundaries**. The kind of boundary that defines a community is a major determinant of the kind of community, intentional or not, that it contains. An unintentional community can be defined as one that has externally enforced boundaries. The process of membership in a community, therefore, may be an active or passive one.

Often, definitions of community include the existence of commonly held ideas, perceptions, and understandings. For Michael Taylor (1987), for example, "... community... mean[s] a group of people (i) who have beliefs and values in common, (ii) whose relations are direct and many-sided and (iii) who practice generalized as well as balanced reciprocity." (p. 23) This definition has many strengths. It opens up the question of the relationship between intersubjectivity and community, makes explicit the range and richness of interactions with a community, and suggests a potentially powerful criteria of evaluation. The first element is not as simple as it may seem. While in many communities members do indeed share common cognitive processes, ideological homogeneity is *not* a necessary condition of community. It may be entirely absent in unintentional communities and only minimal in intentional ones. Nonetheless, many communities are marked by their commonly held and constructed ideologies and it can be argued that widely held and accepted ideas that explain, justify and compel continued individual contribution to a collective's projects often pay a critical and decisive role in community formation and survival. Ideas matter and their role should not be dismissed or ignored. Nonetheless, capturing their effect with precision has been a notoriously difficult task, it is easy to get lost down the long and rocky road of cultural studies and ideological critique. The process whereby an individual comes to perceive and embrace an idea, and in so doing accept or reject a line of action, touches upon the central questions of consciousness.

Taylor's last point is of special importance. The presence of generalized as well as balanced reciprocity is further illustration of the diversity of community relations, but I assume that Taylor places special value on the presence of generalized reciprocity. Since one of the defining characteristics of community is its comparatively long duration, and given the advantages of credit systems, communities are often able to support systems of generalized reciprocity. Essentially, communities may provide resources for the redress of infractions and forfeitures of debts that might not otherwise be redeemable. Social pressure, from insult to incarceration, to make good on all debts helps communities maintain the essential collective good of trust. The benefit of maintaining a generalized accounting system (one that allows for credit and does not demand intensive monitoring)

is supported by experimental research (Kollock, 1992) in which it was found that generalized accounting systems yield much greater mutual benefit than tight systems that demanded in-kind exchanges at all turns.

Towards a definition of community

Cooperation, communication, duration, stability, interconnectivity, structure, boundaries, intersubjectivity, and generalized accounting systems, however inexact, are all certainly characteristics of community and at worst are useful guides to their identification and evaluation. Nonetheless, even the unanimous presence of each of these characteristics does not ensure the success of a community. I noted earlier that a community could be considered a failure when it is incapable of fostering any level of cooperation among its members. Such a community is perhaps one in name only. A successful community, by contrast, is capable of directing individual action towards the construction and maintenance of goods that could not be created by individuals acting in isolation. There are many familiar collective goods; common pastures, air and watersheds, and fishing groups are common examples. But, despite the existence of many notable exceptions, collective goods are difficult to maintain and are often short lived. The continued production and availability of any collective good depends upon the existence of a sufficient[13] level of commitment of the community's members and the application of appropriate systems of monitoring and sanctioning. But every collective good is plagued by some form of a collective action dilemma, a situation in which actions that are rational for individual members of the collective are irrational, that is either less beneficial or even tragic, when repeated across a collectivity. At each moment of their participation in the production of a collective good individuals face the, sometimes latent, choice to commit to some aspect of collective action or to defect from participating. This choice is framed by the fact that the reward for defection is often greater than that for cooperation. The result is a pervasive temptation to escape the demands of collectives while remaining within them in order to reap their rewards. As a result, communities can be fragile things. Collectives must exercise two forms of power to maintain their common goods, first, they must restrain and punish individual actions that exploit or undermine collective goods through monitoring and sanctioning, and second, maintain the commitment of members to continued participation and contribution through rituals and other practices that increase the individual's identification with the group and acceptance of its demands. Since neither form of power is easily achieved or maintained a number of theories have developed to identify and explain the reasons some communities are successful and others fail.

The Elements of Successful Community

While there is fairly wide-spread agreement that these two forms of power are the definitive elements of successful communities, there is far less agreement as to how to

create and most effectively wield these forms of power. Mancur Olson, for example, stresses the importance of group size on its likelihood of success. He argues that size is inversely related to success, as a group grows the costs of communication and coordination rise threatening the existence of the collective. This is an idea that has attracted a great deal of criticism. Michael Taylor (1987) argues that "Olson's first claim in support of the "size" effect... is not necessarily true. It holds only where costs unavoidably increases with size or where there is imperfect jointness or rivalness or both. Most goods, however, exhibit *some* divisibility, and most public goods interactions exhibit *some* rivalness." (p. 11) As a result, Taylor believes that "The size effect that I think should be taken most seriously is the *increased difficulty of conditional cooperation* in larger groups." (p.13) Small groups do possess a special quality that enables them to maintain themselves with greater ease than larger groups. In particular, small groups are usually able to provide high levels of communication between each member of the group while maintaining high levels of surveillance of each members activities, especially his or her contributions and withdrawals to and from the group's resources. This "small group effect" is a powerful one, but it does not exclude or even explain the possibility of successful large groups. One significant aspect of virtual communication may be the way in which it alters the economies of communication and coordination, thus making it possible for larger groups to "succeed" with less effort and difficulty.

If size is not a necessary determinant of success, what is? Rosabeth Moss Kanter, Michael Taylor, Michael Hechter, and Peter Kollock have various answers. Each focuses on a somewhat different aspect of the organization and practices a group employs to explain the group's likely success or failure. Briefly, Kanter focuses on the construction of commitment, identifying three broad methods for its construction. Hechter provides a schematic of the steps necessary for a good to be effectively produced. Taylor looks at the kinds of goods to be produced, revealing that the character of a good in many ways controls the ease with which it and those who produce and consume it may be controlled. Kollock, in contrast, looks at the systems of monitoring employed by members of a collective and the effect of distortion on communication between members to identify methods which reliably yield more productive arrangements.

Cyberspace and Virtual Worlds

The Construction of Commitment

The availability of communication is not alone sufficient for successful organization. Those paths of communication must be used to engender commitment and to enforce compliance. Kanter (1972) examines intentional communities to identify the mechanisms by which they maintained sufficient levels of commitment in each of their members. She recognizes that particular material practices have phenomenological impact. Some, in particular circumstances, can have the effect of generating in their subjects self-restraint and willing contribution to the production of collective goods. The general presence of such inclinations is often referred to as solidarity. But Kanter does not suggest that communities survive by goodwill alone. She notes that the presence of practices that enable surveillance and effective control over pay-offs, both sanctions and rewards, are

the real foundation of successful communities and provides a short catalog of commitment mechanisms that were present in the successful examples of the intentional communities she surveys, where success is equated with the longevity of the collective. Success in her study is defined as the survival of a group longer than one 25 year generation. She examines data on 30 examples of historical intentional "utopian" communities that flourished in the United States from 1780 to 1860, seeking in each indicators of the presence of particular strategies in each category of commitment maintenance. Successful communities fostered attachment, dependence, and obedience through the reduction of individual difference, the provision of a common risk and share of collective goods, and the maintenance of distinct boundaries with everything not in-group.

Kanter identifies three elements of the process of producing individual commitment to a community, the *cognitive, cathectic* and *evaluative*. Cognitive processes involve the evaluation of potential profits and costs of participation in a collective labor, cathectic process entail the emotional and affective bonds created between coparticipants in a collective labor, and evaluative process entail the use and acceptance of the collective's standards of behavior. A collective's success, according to Kanter, is directly related to its capacity to foster and maintain all three forms of connection between the individual and the collectivity.

Kanter further divides cognitive mechanisms into sacrifices and investments. The former increases the "costs" of membership, while the latter increases the benefits of continued membership. All collectives make use of strategies to manage these forms of contribution. But commitment mechanisms need not necessarily involve the evaluations of cost and benefit implied in these above categories. Cathectic commitment involves emotional attachments to relations within the collective and are thus not directly dependent on the continued return on the investment of participation. Emotional involvement in a collective takes two forms: renunciation and communion. The former highlights the abandonment or diminishment of relations outside the collective, the latter highlights the process of incorporating group identification into individual identity. Communion involves the positive construction of affective solidarity. Ritual practices, sometimes woven into productive practices, restate and reassert the ideological principles that justify membership and commitment. Evaluative commitment involves the use and acceptance of the collective's schema of interpretation of their behavior and the behavior of others. This inevitably involves moral judgments of proper conduct and contribution. To the extent that a collective is able to capture central elements of identity within group practices of validated meanings, the individual is bound more closely and tightly to the group.

Each of these processes takes place within the WELL, albeit with modification. The communities in Kanter's study are all face-to-face communities of people who have an economic dependence upon one another. This condition does not hold in the WELL where its members come together to satisfy needs and wants beyond their immediate material survival. Nonetheless, interactions within the WELL do exhibit these processes and are perhaps more important there since no physical coercion is possible. The costs of

membership in the WELL are primarily money and time, the payoff useful knowledge and membership in a collectivity. Attachment is generated quite strongly at times, creating a condition known as "Well Addiction" in which members find themselves participating in the WELL to the exclusion of other activities. The generation of communion effects will be taken up again below.

Cyberspace and Virtual Worlds

Economies of Commitment

Hechter (1988) develops this theme further. He notes that monitoring and sanctioning systems have their own economies and their relative costs determine whether groups can bring them into use and to what effect. Furthermore, there are a number of steps that must be taken before these mechanisms can be put into use. First, there is the entrepreneurial task of organizational design, or production rules, the costs of which can be prohibitive. Second, collective acceptance of a particular production scheme must be achieved. It is here that conflicting interests and preferences complicate the process of collective organization. Third, the production rules must be maintained. Individual commitment must be maintained and defectors identified and punishment applied. This involves the problem of *assurance*, the conviction that committed contribution to the collective good will be reciprocated by all interaction partners. Hechter argues for the necessity of *formal* rules and controls: "Whatever its specific causes, sub-optimal production of the joint good leads the group to unravel. In order to attain optimal production, formal controls that assure high levels of compliance with production (and distribution) rules by monitoring and sanctioning group members must be adopted." (p. 18) The dilemma facing groups is that such systems of organization are themselves collective goods which must be produced and maintained: "Yet since these controls are themselves a collective-good, their establishment has been difficult to explain from choice-theoretic premises." (p. 18)

The construction of formal systems of regulation has been repeatedly avoided by the members of the WELL, a point that offers some evidence critical of Hechter's argument. Members of the WELL have diverse backgrounds but seem to share an unwillingness to construct regulations and formal sanctioning systems for their interactions. Nonetheless, a number of collective goods continue to be produced as will be noted below.

Cyberspace and Virtual Worlds

The Character of Collective Goods

Michael Taylor's work (1987) expands on Hechter's system by describing the kinds of collective organizations that are possible and their relations to the goods they seek to control. He examines the type of goods groups can produce, categorizing them on the basis of the type of boundaries that can be placed around them and the manner in which they are produced and consumed. For example goods can be excludable or not. An excludable good offers the collective the power of denying access to anyone who does

not contribute to its production. Goods can be rival or not: some goods are diminished by their consumption: two people can not eat the same bite of food. Further, some forms of consumption reduce the value of the remaining resource (for example adding pollution to a stream.) But not all goods are rival and some are even strongly anti-rival: information can in some cases be like this. [Ex: the more widely accurate knowledge of AIDS is distributed the more developed the common good. Further, a newspaper, once read, is not necessarily diminished in value.] Similarly, some goods are divisible: it is possible to quantize the good, electrical power is an example, while others are not, public safety while expressible in terms of a crime rate is not easily decomposed into units of safety. Some goods are exhaustible and others renewable. Fossil fuels are a primary example of the former. But many goods have rates of sustainable use, fisheries, pasture land, and pools of credit can regenerate themselves. Nonetheless, even a renewable resource can be exhausted by overuse. Some goods require active production while others require regulated access. Resources are not only collectively drawn *from* but also collectively contributed *to*. A *common pool resource*[14] can be more than physical resources like fish or pasture-land. CPRs can also be social organizations themselves. Markets, judicial systems, and communities are all common resources. These kinds of resources have the added element that they must be actively reconstructed, where fish will remain in the sea whether they are fished or not, a judicial system will not persist without the continued contribution of all of its participants. Further, institutions are just one form of a social common pool resources. The far less formal settings that enable particular kinds of interaction are also common goods.

The goods produced and maintained in the WELL are primarily the product of on-going discussions and the relationships that they enable and embody. In Taylor's schema, the WELL's goods are not very excludable, the contents of public conferences are open to all members. However, the existence of backchannels of communication, such as email, and private conferences, allow for some goods to be excluded. Indeed, private conferences, as a result of their enhanced capacity to exclude access to some other group of members, are able to produces certain goods that could not otherwise be generated. For example, private conferences often contain discussions of sensitive or personal issues that rely upon a high level of trust between co-participants. But, whether public or private, the goods in the WELL are not rival, increased use of the information generated by the WELL, as is the case with many forms of information, does not diminish its value. Furthermore, the goods derived from the WELL are not very quantizable, although access to the WELL is. These qualities mean that the WELL is faced with a difficult task as a result of the qualities of the goods it produces. Without control over the boundaries surrounding goods, Taylor suggests, the likelihood of continued successful production is diminished. An illustration of this is offered below.

Moving from a restricted to a general accounting system is by no means an easy task. At the very least it is necessary that someone take on the entrepreneurial task of creating a more relaxed system and drawing a significant number of members into acceptance of these rules. Members often have strong grounds for refusing to cooperate, especially if

they do not believe that others will abide by the rules or if there are outstanding "debts" they would be required to abandon. Creating a sense of assurance, then, requires a great deal of work and public demonstrations of acceptance. The frequent disputes that emerge in the WELL have led some people to believe that a more relaxed accounting system is necessary and they have started Topics to garner public acceptance of the system:

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Topic 104: THE SLACK COMPACT: A General Custom to Replace Rules # 1: My
other account is on the Internet (boswell) Wed, May 20, '92 (11:04) 32
lines TTHE SLACK COMPACT:

In the name of Gopod, Amen. We, whose names are underwritten, the Loyal
Users of the WELL, by the Grace of Gopod, of Internet, of PCConnect, of
CPN and PacBell e&. Having undertaken for the Glory of Gopod, and
Advancement of the Universal Connectivity, and the Honour of our System
and Virtual Community, to create the finest telecommunications colony
in Cyberspace; do by these presents, solemnly and mutually in the
Presence of Gopod and one of another, covenant and combine ourselves
together into a civil Body swearing to cut each other slack at all
times, IN ALL CONFERENCES SAVE ONE, and in all manner possible for our
better Ordering and the Preservation of Online Peace of Mind, and
Furtherance of the Ends aforesaid; And by Virtue hereof to enact,
constitute, and frame, this solumn compact of the STATE OF SLACK, that
it shall enable us to respond in a forthright manner or to create
Topics as we so choose and yet recall that the GIVING OF SLACK shall be
held to be the state as shall be thought most meet and convenient for
the General good of the WELL and all other systems that we shall
inhabit; unto which we promise all due submission and obedience.

In Witness whereof we have hereunto subscribed our names at
well.sf.ca.us the Month of May, in the Reign of our Sovereign Sysop,
fig of Mill Valley,Sausalito, and California Anno Domini, 1992.
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While some members embraced this effort,

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Topic 104: THE SLACK COMPACT: A General Custom to Replace Rules #13:
Andrew L. Alden (alden) Wed, May 20, '92 (14:22) 5 lines

As the descendant of a signer of the Mayflower Compact, I am honored to
affix my name and userid herebelow to the document hereinabove and for
now and hereafter.

Andrew L. Alden alden
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Topic 104: THE SLACK COMPACT: A General Custom to Replace Rules # 14:
Frank Miles (fhm) Wed, May 20, '92 (14:25) 1 line


Slack, yes, by all means.
```

others reacted with a significant amount of resistance:

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Topic 104: THE SLACK COMPACT: A General Custom to Replace Rules # 6:
set phasers on scribble (axon) Wed, May 20, '92 (13:00) 11 lines


very amusing, gerard. you want to rip off my words and ship them to the
worldnet, you want to drag a cadre of filthy camp-followers through my
parlor, you want to build your online reputation on the creativity and
effort of brighter lights than yourself, and then you want me to give
you *slack*?

i've got your slack right here, pal. go fuck yourself, wheelock. and
the horse you rode in on.
```

The move to institute this compact, like many other calls for the reform of behavior on the WELL, yielded no formal rules or clearly developed set of new normative standards. But by bringing the issue into public discussion, it may have served to highlight the problem in the minds of the members and provide some standard by which evaluations of behavior will be made in the future.

Cyberspace and Virtual Worlds

Collective Goods in a Virtual Space

Despite the lack of physical contact and the minimal exchange of material goods between members of virtual communities, a number of goods are produced and consumed.

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Topic 29: What does the Well *do* for users? # 1: another user (gail)
Sun, Nov 17, '91 (14:59) 25 lines


When I started, I wanted information. Then I wanted to play and
frolic... using my theater background. Then I wanted to be sincere and
contradictory and fully human. Then I wanted interaction, brilliant
intellectual syntheses and paradoxes and great collaborative problem
solving. Then I wanted community. Then I wanted inspired group
improvisation with emotion, spirit and analytical thought all permitted
and appreciated. Then I wanted not to get in anybody's way. Then I
wanted to be able to sit at an ascii conf. table or firecircle or
whatever and chime in whether I was agreeing or questioning, and to be
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confident that if it wasn't important, my remarks would be properly
ignored. The best to me is personal epiphanies and clarifications of
different world views, and perhaps best when actually serendipitous...
but this is a matter of taste and trust, I've just grown up with
disdain for the synthetic, and had to learn to question as well as
honor that disdain. I'm still here out of a mixture of gratitude and a
kind of rash bravado taht if there's no reason for this, I'll be able
to tell, and I'll stop posting. My doubts have to do with my lack of
specific useful knowlege. What keeps us here?

These goods can be categorized as various forms of capital. Members of the WELL produce two forms of capital in abundance, although not every member of the community is able to make equal use of these resources. The first form of capital is **social network capital**, the WELL expands the number of social relations available to an individual. This is also understood to be the primary mission of the management and staff of the WELL:

Matisse Enzer - Tue 14 Apr 1992 in Topic 46: WELL Customer Support
Policy

The main thing that The WELL provides is a computer conferencing
environment. This is a place for people to meet each other and exchange
ideas and thoughts in a conversational fashion. After access, our next
priority is the maintainance of the conferencing environment and
helping people to use the basic features of that environment: Reading
conferences, Posting in conferences and Finding material you are
interested in.The main thing that The WELL provides is a computer
conferencing environment.

Other organizations do this as well: churches, clubs, and associations provide individuals with new contacts and expand their potential and realized networks, but the WELL and other virtual communities provides instant access to ongoing relationships with an even larger and more diverse group of people than most face-to-face organizations provide. Further, because virtual communities can rely on the structure of computer software, individuals can quickly seek out and join groups interested in exactly the same interests they hold. While it is impossible to pick up the phone and ask to be connected with a group of people interested in Jazz or comic books, or raising a child with disabilities, that is exactly what virtual communities provide. In effect the segmented architecture of virtual communities can be imagined as a vast convention with groups congregating around signs that advertise their intended Topic of discussion. The result is a kind of electronically maintained set of Schelling points, social magnets for particular interests. This is reflected in the statements of members of the WELL who frequently cite access to other people as one of the main purposes for their community:

Topic 28: WELL's Mission Statement -- What Would it Be if it Existed? #
1: Sharon Fisher (slf) Mon, May 4, '92 (09:18) 2 lines

Bringing people in touch with each other, who might not otherwise meet,
to discuss all types of issues.

Topic 28: WELL's Mission Statement -- What Would it Be if it Existed? #
2: demontiki (jdevoto) Mon, May 4, '92 (09:53) 3 lines

Providing ways to communicate. Building communities. Tying people into
the world net.

Topic 28: WELL's Mission Statement -- What Would it Be if it Existed?

6: Matisse Enzer (matisse) Tue, May 5, '92 (19:26) 10 lines

Here's a "statement of core values" the staff came up with last July -
we felt that this was a good PRELUDE to a mission statement, but is not
a mission statement itself:

The WELL's core values are building and maintaining
RELIABLE, EXPANDING, COLLABORATIVE telecomputing systems
that support and environment of stimulating conversation
and ENCOURAGE CREATIVITY, DIVERSITY and TOLERANCE

Topic 28: WELL's Mission Statement -- What Would it Be if it Existed?

42: Matisse Enzer (matisse) Sat, May 16, '92 (15:51) 5 lines

The new version of the WELL brochure will say:

ACCESS TO PEOPLE AND IDEAS

Topic 28: WELL's Mission Statement -- What Would it Be if it Existed?

52: Larry Moss (lsm) Wed, May 20, '92 (13:25) 12 lines

Ok, here's a sketch for a small piece of a statement:

Bringing people together means more than just having them occupy the
same

space at the same time. In electronic communication, we find aspects of

25

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*community* which are sometimes similar to, and somtimes different
than,

the communities we are all part of. For example, politeness, anger, and

friendliness show up on the WELL, and by now there are norms (but not

hard-and-fast rules). Also, the WELL tries to be a worldwide community

and still have a small-scale feel. Part of our purpose is to

investigate "virtual community", to find out what works and what

doesn't. As a self-conscious virtual community, we hope that our

experience will be useful in building others.
```

These networks established around particular subjects are themselves a collective good, but they are also the foundation for two other goods, **knowledge capital** and **communion**. Other goods no doubt exist, but these categories capture much of the goods the community produces. The first is a feature of most communities but is especially pronounced in the WELL and other virtual communities as a result of the heavy presence of *symbolic manipulators*, a term for individuals whose profession involves the creation, use, and modification of representations. The definition is clearly broad and perhaps does not cut cleanly, there is a sense in which all humans are symbolic manipulators, but the term seeks to highlight the fact that WELL members are likely to be lawyers, teachers, musicians, programmers, and writers. They are typically professionals of one sort or another who are at home with text and have a facility with ideas and their manipulation. As a result they are a population that is, perhaps, more likely to value information and have a continuing demand for unconventional information.

```
Topic 22: Dealing With Strangeness

# 12: Not His Real Name (rbr) Sun, Apr 26, '92 (15:32) 2 lines

Why would someone who didn't want to learn anything sign on to the WELL
in

the first place?
```

For these people, the WELL serves as an information resource of a kind that no collection of reference books can match. In this "information age", the problem many symbolic manipulators face is not a lack of information but a glut. Faced with vast quantities of

information, getting just the right piece can be a formidable task. The WELL acts as an organic knowledge filter; each of its thousands of users sift through large amounts of information, they often hold expertise on one subject or another, and each can be drawn upon by others in the community. One of the most common phrases in the WELL is "Does anybody know..." This is best illustrated by a Topic in the News Conference entitled "Experts on the Well" which has the explicit purpose of bringing the collective knowledge of the group to bear on any individual's question or problem.

Topic 1050: Experts On The WELL

By: All The Fits That's News (phanson) on Mon, Sep 14, '92

315 responses so far

Continued from Topic 1023 ... got a question or problem that only an

expert can answer or solve? Well, we got lots of experts right here

on the WELL ... ask your question here, and watch the answers come

rolling in ...

Questions range widely, from the technical:

Topic 1050: Experts On The WELL

3: Stephen David Fishman (sfish) Tue, Sep 15, '92 (12:26) 2 lines

I have a Mac LC with a Seiko color monitor. All of a sudden the picture has

started shaking. What could be causing this? (It's very annoying.)

Topic 1050: Experts On The WELL

4: Will Work for Pay (chuck3) Tue, Sep 15, '92 (13:19) 1 line

The blow dryer. (Or any squirrel-cage motor like that.)

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Topic 1050: Experts On The WELL

# 5: Call me Fishmeal (pk) Tue, Sep 15, '92 (13:22) 1 line

An electric clock next to the monitor.
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To the culinary,

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Topic 1050: Experts On The WELL

# 15: Frag Botch (jpgordon) Wed, Sep 16, '92 (10:49) 9 lines

Here's something that's been puzzling me for quite a while.

How is caviar removed from the sturgeon?

Now, obviously, the easy way is to kill the fish, yank out the eggs,
end

of story. But that seems wasteful to me, since mama sturgeon could have

lots of years of caviar-making, so I wonder if some caviar is removed
frothe

fish non-fatally?

Vegetarians who occasionally crave fisheggs want to know.
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To the practical,

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Topic 1050: Experts On The WELL # 82: Steven Schiff (stevens) Sun, Sep
20, '92 (22:17) 2 lines

Any Bay Area financial institutions that still offer free checking
accounts,

no per-check charges, no minimum balance?
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Replies are not guaranteed, however:

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Topic 1050: Experts On The WELL

#157:Jordan S. Gruber (jordan) Fri, Sep 25, '92 (17:13) 4 lines

I just wanted to say that this is the first time I've asked a serious

question of the "Experts" and felt like I've been totally blown off

by people who weren't very open, nice, or understanding. You know who

you are.
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In part this is due to the individual personalities of the members of the WELL:

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Topic 1050: Experts On The WELL

#158:Howard Rheingold (hlr) Fri, Sep 25, '92 (17:21) 1 line

He's a well-known asshole, Jordan. Don't let it throw you.
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Topic 1050: Experts On The WELL

#160 Fewer Distractions (hudu) Fri, Sep 25, '92 (19:04) 2 lines

Why struggle to answer a hard question when you can change the subject

instead? It's the Expert Way.
```

Since in many cases the information passed up and back within the WELL can have great value for the appropriate individual, the question that comes to fore is why would anyone *pay* two dollars an hour to give away valuable knowledge. The answer does not lie within the technology: a for-profit venture called the American Information Exchange (AMIX) was founded in 1991 on the principle that information *is* a commodity that should be exchanged for a fee. Using the similar technologies as used by the WELL, AMIX sells knowledge for prices that range from a dollar to many thousands. In contrast, the WELL operates on a kind of gift economy. The WELL offers a different good than monetary gain, it offers status within a group. Being knowledgeable in the WELL and being free with your knowledge is a sure way to gain status, friends, and visibility. As with any community, the WELL's most effective reward is recognition. As a result visible

reciprocity is a major means of increasing status. There is no requirement on the WELL that answers be given however, or that members even read the Experts Topic. As a result, the Topic must provide participants with some reason to continue. In the absence of tangible rewards, like payment, the Experts Topic relies on recognizing cooperative experts and reasserting the purpose and order that should hold in the Topic. When irritated, participants may act to disparage the Topic or the questioner. Doing so calls the continued existence of the conference into question:

Topic 1050: Experts On The WELL

#163:Mister Shotgun, exercising his rights (jeffreyp) Fri, Sep 25, '92 (20:40) 1 line

Those who request free advice get what they pay for.

Reasserting the nature of the Topic is often all that is necessary to regain its momentum:

Topic 1050: Experts On The WELL

#164 Howard Rheingold (hlr) Fri, Sep 25, '92 (21:08) 3 lines

That hasn't been the spirit of this Topic in the past. People have

often been able to get good answers here, along with all the

predictable smart-assery. I'd like to see that continue.

Topic 1050: Experts On The WELL

#166:Really Doddering Greying Dreadnaught (onezie) Fri, Sep 25, '92 (21:56) 5 lines

It indeed has NOT been the spirit of this Topic in the past. And

'twould be a real loss if jeffreyp's attitude prevailed in this

Topic in the future.

Accusations of guilt provide a way of locating blame for a disruption, but they do not return the Topic to its collaborative decorum. Frequently, a call to solidarity and understanding does the trick:

Topic 1050: Experts On The WELL

#167:hope is an obligation (jdevoto) Fri, Sep 25, '92 (22:39) 3 lines

Well, sometimes no one knows the answer. When that happens, questioners

sometimes need to remember that answering is a gift, not a requirement,

and attitudinize accordingly. We all help in this Topic when we can.

But failure to receive recognition for a contribution can be the source of some irritation and disruption in a discussion. For example, in a Topic about the extension of access to systems like the WELL to low income and other non-technical people a member of the WELL offered a pointer to a system in operation in the San Francisco area. When another member gave credit for the pointer to a third party, she was irritated enough to create a new Topic and post the following:

Topic 60: What am I doing here?

1: Kathleen Creighton (casey) Tue, Aug 11, '92 (22:39) 22 lines

Something I've posted in this conference has been (again) blatantly ignored. This is the third or fourth time this happened *in this conference*. It happens to women all the time, but it's the first time that it's happened systematically and repeatedly *to me*. I don't understand what the problem is. Perhaps I don't have any credibility in this field? WELLbeings who've been involved in telecomm issues on the WELL for some time know better. In fact, it generally has not been old-timers who've been doing this to me because they know that I have researched these issues in certain venues for quite some time. Perhaps it's because my user id isn't "hlr"? Well, these are issues near and dear to Howard's heart, but I know he's working his rear end off for this book and like anyone else, he's having to *research*. He didn't wake up one morning knowing everything there is to know about this subject. I could repeat my "credentials" (which I have to do occasionally) but I have a feeling it wouldn't make any difference. I will say this, though. I'm sick to death of it.

The collected intelligence and memory to be found in virtual communities has led some to speculate about their power to amplify

mental capacity and there is some evidence to support the idea: a
collective mind is a powerful force. But participation and contribution
in such exchanges are not uniform or of equal quality. The exchange of
information in the WELL is a form of commodity, and as with any valued
good, it is not distributed equally. However, while not every question
is or can be answered, once answered any member of the WELL has equal
access. Most of the WELL is "public", it is accessible to all
users[15].

Despite the frequency with which WELL-members make use of their
community as an information resource, it is by no means limited to an
information market. The kinds of relations maintained within the WELL
are diverse, as diverse, or nearly so, as found within a face-to-face
community. While relations that depend on the copresence of bodies are
clearly impossible, this does not mean that relations within the WELL
are impersonal or dehumanized. Far from it. The third collective good
in the WELL is **communion**. By this I mean to capture the sense of
membership that is found in more traditional communities. Membership
is, along with community, an ill defined term. At minimum, membership
involves rights, obligations, and some modification of identity.
Communion also suggests a non-instrumental contact with the group, an
emotional bond. But can people come to have emotional attachments to
one another without ever facing each other? As the history of romantic
correspondence shows, the answer is emphatically yes. And this can be
seen again in the WELL. WELL-beings, or WELL-ites, often turn to one
another for more than information that can be parlayed into other forms
of capital. Within the WELL people turn to each other for support
during crises and camaraderie during triumphs.

Topic 29: What does the Well *do* for users?

3: Woody Liswood (woody) Tue, Nov 19, '91 (20:05) 4 lines

Because the WELL is my personal support group. A place for ideas about
what

I'm interested in, where everyone is equal, where ideas count more than

the person putting them forward, and besides, its fun.

--Woody

A conference on the practical and the emotional challenges of
unemployment opened on the WELL at the beginning of this summer, on-
going discussions and grieving for the death of loved-ones continue,
and an on-line funeral followed the death of a prominent WELL-member.
The capacity to organize and focus the energies of a widely scattered
group is one of the most powerful aspects of virtual interaction, a
power that is frequently applied to the emotional and personal needs of
members of the community:

Topic 9: WELL as Collaborative Tool

79: Gail Williams (gail) Thu, Oct 1, '92 (16:35) 12 lines

A collaboration for which the Well is a tool-to-make community is going
on in Topic 401 in parenting.

Bunch of well folks got together to make bright colorful tie-dies lab
coats

for lhary who's undergoing hospitalization for leukemia. And they
decided

to buy him a wall hanging as well, for the most colorful room on the
floor.

People joined in online to raise trhe money for th egift.

Should anyone doubt for a moment that the tool can work wonders... or
want

to join in the support network, g parenting.

Cyberspace and Virtual Worlds

Obstacles to the provision of collective goods

For all the positive goods virtual communities like the WELL are able
to produce there are equally challenging obstacles to their continued
production. The obstacles to the continued existence and development of
the WELL involve maintaining membership, expanding that membership,
socializing new members, maintaining the infrastructure of the
community (the computer's hardware and communications systems), and
dealing with the potentially disruptive actions of its members. If
members find the cost of participation, for whatever reason, is too
great, and subsequently withdraw, the community and the goods it
produces will collapse. Alternatively, if members find that they are
able to enjoy the benefits of the collective good without contributing
to its production, then, too, the community may collapse for want of
active participants.

Virtual communities are no exception to this dilemma. The continued
existence of the web of social networks, upon which the other
collective goods are built, depends upon a number of factors. First,
members must come to the WELL. The WELL is a quintessential intentional
community. Unlike communities that form as an accident of place or
circumstance, individuals must take a series of complex and very
intentional steps to go to the WELL. It is unlikely that anyone would
arrive there even accidentally. Therefore, individuals must find
something of value in the WELL. Given the wide availability of other
virtual communities, this challenge is even greater: no borders

constrain nor does any personal influence or sanction compel individuals to participate in the WELL. Indeed, at $2/hour, a fairly effective fence blocks casual access. And while technical advantages may draw some users to some systems, for example America On-line, a competing information system, offers an elegant, appealing and intuitive graphical interface to its community and its information services, the WELL, by comparison, offers no windows, mouse support, icons, or graphics, only pure ASCII[16]. The continued success of the WELL can be explained only by the one thing that it has exclusively: its members. Individuals may not come to the WELL because of the people who are already there (although personal referral is a common route for newusers and the reputation of the WELL is widely known in the on-line community) but they often stay (and leave) because of them. Many of the subjects discussed on the WELL (although not all) can be found elsewhere, but the discussions often merely act as a structure around which lasting relationships are built.

Cyberspace and Virtual Worlds

Population Pressures

While attracting members is a significant task for communities, retaining members and socializing new members is even more so. Currently the WELL is undergoing a massive immigration. As the population of computer-literate people who have access to telecommunications resources has grown, so has the size of the WELL. Starting with a mere 150 users in 1985, the WELL grew to 1,500 users by 1987, 3,000 users by 1989, and has exploded to over 6,000 members currently. The recent connection of the WELL to the much larger Internet promises to bring even more newusers into the community. Currently 300 newusers signon each month. However, population pressures have transformed what was once a small village into a burgeoning town on the verge of becoming a city. The change has not thrilled some members who have decided to leave the community. About 150 users signoff the system each month, although it is not clear how many do so because of growth nor how many are old versus recent users. The result is a net growth of 150 users.

Cyberspace and Virtual Worlds

Participation

Despite the influx of new users, most users of the WELL do not actively participate in its construction. Recent statistical analysis shows that 50% of all postings in the WELL are generated by 1%, some seventy people, from the larger 7000 person population.

Topic 880: WELL posting stats

#100:Jim Rutt (jimrutt) Tue, May 26, '92 (08:23) 13 lines

Well Posting has gotten a little bit more concentrated since January 1991:

Top N% of WELL subscribers produced

% of total postings January 1991 May 1992

50 1 1

80 4 3.3

90 6.5 5.8

95 10 8.5

99 16 15.4

Members who do not post (commonly referred to as "Lurkers") do help support the community. Access to the WELL requires payment and even inactive use of the WELL helps maintain it. However, the WELL has suffered to some extent because of the limited participation and steps have been taken to expand member's activity. However, these efforts have not had any great effect on participation.

Cyberspace and Virtual Worlds

Transgressions and Sanctions

Much research on violations of community standards stresses the importance of sanctions. In these works, sanctions are seen as a form of boundary, a fundamental condition of successful communities and collective goods. Sanctions are necessary to lock out transgressing members from the good they are disturbing. This has been a particularly difficult task for the WELL because of its ideological tenets. Virtual communities, however, have a number of technically facilitated tools at their disposal to provide various kinds of sanctions. Members of the community can be denied their right to enter the community, either temporarily or permanently. However, the same individual might be able to enter the community using a different identity. The value of virtual identities (sometimes referred to as on-line persona) provide some restraint on this practice while always offering the possibility of new-beginnings. Alternatively, a member may be denied the right to continue to contribute to the community, their ability to write to the discussion can be cut-off. However, since continued contribution is actually the good being produced, doing so can be counter-productive. As a temporary sanction however, this can be useful. In addition, humiliating stigma can be added to the user's identifying markings, or a public repudiation of their activities can be made. Each of these techniques is unilateral, the owners/operators/governing bodies of virtual communities can decide to enact any of these sanctions without

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regard to the actions of their subject. By comparison, public apologies require some cooperation.

Since continued participation in the various discussions that make up the WELL is the main form of contribution individuals make to the collective (in addition to their hourly fee and, in some cases, technical and administrative contributions) the right of individuals to remove or withdraw their contribution is of central concern to the collective. The WELL's policy concern contributions has been worked out through a long and intense process. The resulting policy is that the WELL recognizes the ownership of all contributions by their contributor. This policy is often referred to as YOYOW (You own your own words). The YOYOW policy has resolved many problems that face virtual communities, especially concerning the quotation of contributions found in the WELL in outside services or publications. The YOYOW policy encourages continued contribution by protecting and retaining all external uses to their contributor. The policy contrasts starkly with that of other, often larger, commercial services, such as Prodigy and Compuserve, which claim ownership of all contributions made within their systems.

The YOYOW policy is extended in private conferences. A private conference is an option open to all members of the WELL. On request a member can create a conference that is both invisible and inaccessible to all other users unless they are informed of its existence and invited to participate. There are a number of private conferences on the WELL, and the number has grown recently as the influx of newusers has created a strain on the public conferences. This strain is related to the problems of socializing newusers to the history and norms of interaction in the WELL. Private conferences are used as a kind of "virtual suburbs" where old users can relax with other hand-picked members. Private conferences are used for other reasons as well. The Men on the WELL and Women on the WELL conferences require permission to enter them from their hosts. This is intended to screen out all members of the opposite gender from participation. In addition there are a number of private conferences geared to the discussion of sensitive issues. For example, private conferences exist for the discussion of sexual abuse and substance dependency, although these by no means exhaust the Topics of private conferences.

A widely held norm coupled with technical limits to access form the boundaries of private conferences. No one who has not been added to a special list (called a ".ulist") can access a private conference and participants to such conferences are granted access on the basis of their willingness not to discuss or repost messages exchanged within private conferences. These restrictions are important for private conferences to engender a sufficient level of trust to allow participants to express otherwise embarrassing or sensitive or just personal information to one another. Therefore, it makes sense that violations of this trust are grounds for the application of sanctions. However, as the following case illustrates, the WELL has been unwilling to implement formal sanctioning systems. This has led to a number of problems.

Some background is necessary to illustrate this case. Over the past year the WELL has suffered from a series of technical problems. As the

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membership of the WELL has expanded the hardware and staff needed to
maintain it have been strained beyond their limit. The result is
frequent system crashes which make the WELL inaccessible to all users,
sometimes for an extended period of time. The frequency of these
service failures has generated a substantial amount of irritation and
criticism and led some of the most frequent users of the WELL to be
concerned about its future. A group of concerned members, a significant
number of which were hosts of various conferences, created a private
conference to discuss the future of the WELL. Proposals were put forth
about the potential need to resite the WELL community, either on
another system like GEnie, or in a new set of hardware owned and
operated by the hosts themselves. This discussion at times became
heated and confrontational. Given the importance of the Topic, some
members suggested that a private conference was an inappropriate forum
for the discussion. It was decided that more people be invited to
participate in the existing private conference and that it would then
be made public. However, because of the kinds of heated contributions
to this conference, the group decided that the existing conference
would be deleted and a new public one created in its place. However,
prior to its deletion, one of the participants copied the entire
conference to a file in his personal directory. While it was stored
there another user was able to copy the file to his directory.[17] He
then proceeded to email a number of members of the WELL who had not be
party to the private conference alerting them to the existence and
contents of this file. This transgression was quickly discovered and a
new Topic was created to discuss the infraction. The Topic revealed
that there was consensus that a norm or rule of the WELL had been
violated.

---

policy.111.29: Cliff Figallo (fig) Mon 22 Jun 92 12:07

I was informed of this episode on Saturday. I chose not to take any action

since to begin using root privilege at this point to delete files contained

in a user's home directory is not the sort of precedent I want to set in my

last month here.

I will say, though, that on the face of it, making private conference

material publicly readable is unethical given our understing of the nature

of private communication in this medium. We all know that people will say

things privately that they would not say publicly. We all know that to dash

the expectations of privacy ruins trust not only in the system but in each

other. We have a loose system here because we want it to be that way. We

could all move to other more secure commercial systems if security was our

main concern. But we have to be able to trust each other to some extent to

have what the WELL has.

If the perpetrator feels betrayed by the existence or methods of the

Backroom conference, that is one thing. To hold private discussions hostage

as a sort of punishment is not the way to make things right.

But while private conferences are recognized as private, there exists no formal sanction for transgression of this norm. Given the potentially sensitive nature of any private conference, a number of users called for a sanction to be applied to the offending member.

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policy.111.32: Kim L. Serkes (kls) Mon 22 Jun 92 12:16

Cliff slipped in...

And the question still is: how do we deal with someone who's committing

such a grave breach of our ethical standards?

It's clearly wrong, the violation is clearly willful. Suspend the
account,

now.
```

Suspension of the user's account is functionally equivalent to excommunication and is the most serious sanction available to the WELL. Perhaps for that reason and the WELL's libertarian[18] philosophy, it is also the least commonly imposed. In the history of the WELL only two people have been banished and then only after extensive and long-term disruptive behavior. However, the appeal to norms without sanctions was recognized as a problematic solution:

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policy.111.39: Jon Lebkowsky (jonl) Mon 22 Jun 92 12:59
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> As long as private conference hosts make it clear that copying the private

> material outside of the conference is verboten, we should have no problems.

But at the moment we do have a rather serious problem, and it's not so

much the specific act as what the response should be. I'm not sure that

suspension is the answer, but if there's a serious breach, there should

be a consequence. Determining the consequence is going to be tough if

work case by case according to context, perhaps what we really need

is a set of rules and a clearly stated sanction for particular breachers:

e.g.: if you port private conference material to a public forum without

permission, the result will be [fill in the blank, I'm not good at

punishment].

---

policy.111.43: Kim L. Serkes (kls) Mon 22 Jun 92 13:26

Damn right, Scott!

The stolen files are copies of material that the present holder was never

intended to see. The Topics were removed from the conference before this

person was added to the ulist. This person has no right to the material.

This person has no right to make the material public, as was done several

times over the weekend by posting it.

Further, this person has not merely _failed_ to preserve the privacy of

this material, but has actively made it available to others, and to any

curious person who knows where to look.

I feel that when there is an egregious violation such as this, the WELL has

a duty to take action.

While some blame may attach to the person who originally copied the files,

that was simple (near unto simple-minded, but let the pern who hasn't

locked himself out of his own WELL account cast the first synapse...)

negligence. The present holder of those files is acting with evident

malice. Since this is persistent and wilful, and since other, innocent

parties, are being harmed, compulsion is called for.

This is an example of what Hechter identified as the first step of the organization necessary for the creation of a collective goods producing organization: the entrepreneurial construction of rules and a system to enforce them. However, Hechter assumes that this process must be successful for a collective to continue to produce their goods. The members and management of the WELL show a strong reluctance to produce such formal controls, despite the fact that transgressions of this norm do threaten the collective good.

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policy.111.51: Howard Rheingold (hlr) Mon 22 Jun 92 17:41

I think Cliff's caution is well-founded. Do we REALLY want to give the

WELL the power -- and the responsibility -- to police what people keep

in their private file areas?

We could solve some problems by encrypting private conferences, but

who has the responsibility to prevent members of the conference, who

legitimately have the decryption keys, from printing out the plaintext

and leaving it on their desks? Either physically or virtually?

I don't think that rules are going to cover this. Trust has to be a

norm, not a rule. And communities need to be informed when there are

untrustworthy people about.

And I don't think we are ever going to achieve the kind of privacy

we thought was possible here before the duck incident. Clearly, he is

an example of the kind of person who strongly believes that the ends

justify the means. You can't stop people like that. You can, however,

let it be known that you have reason not to trust them. Ultimately, I

think that's our only recourse.

Nonetheless, some members of the WELL felt strongly that a already existent rule or norm had been violated and demanded formal sanctioning from the management of the WELL, the only agent with the power to deny member's access to the community.

---

policy.111.55: Bob Ulius (rebop) Mon 22 Jun 92 19:30

What kls said. Exactly.

Either distributing contents of a private conference is wrong, or it isn't.

Either posting private email is wrong, or it isn't. I tend to think both go

against what the majority of users here would like to see. And if true,

someone needs to do more than ignore transgressors. Like jstraw, I believe,

said above, without any rules and teeth here we have a field day.

Faced with the possibility that WELL management would not impose a sanction, members turned to forms of sanctioning that were within their control:

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policy.111.62: Andrew L. Alden (alden) Mon 22 Jun 92 20:54

Why don't we do what we did to whats-his-name who lifted some gab from

politics and posted it elsewhere without permission? That is, expose him to

full public opprobrium. Isn't anyone ready to name names and use our only

weapon?

policy.111.63: Michael Newman (jstraw) Mon 22 Jun 92 21:15

that was a public conf

if TPTB[19], who offer private confs as part of this system's service are not

willing to create an enforce a rule that simply states "distribute the

contents of a private conf and you're outta here" then they are gutless in

the extreme this isn't such a case specific incedent, allowing duck to get away with

this calls into question the viability of all private confs

there is only one way to counter the scenario in Scotts #42

I think the hosts of any private conf duck is on the ulist of should boot

him at once

The Topic quickly polarized along the lines of formal - informal sanctions. Those who supported the idea of informal sanctions argued in part that the media in which their interactions took place ruled out the possibility of effective sanctions, at least in part because the variety of transgressions could not be codified sufficiently to allow for a just application of sanctions.

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policy.111.65: pseud (hank) Mon 22 Jun 92 21:28

I feel about as uninvolved in this as it's possible to get, for a

longtime WELL user/host -- I wasn't aware of or invited to the

private conf, nor sent any copies or pointers to files, nor even

reading often enough to see much of what`s been posted and scribbled.

It seems to me to be yet another iteration of the old old WELL

argument -- do we want rules, and thereby create a higher power

than ourselves responsible to enforce them, or can we use this

tool to become neighbors if not friends?

In real neighborhoods people chop down one another's trees, drain

stormwater into one another's basements, ding one another`s cars,

break one another's windows, keep one another up all night or early

in the morning ... how is this different? Do we call the cops every
time?

Seems to me the people who didn't invite me to get all upset about this

in the first place did me an honor. I recommend scolding, tsking, and

relaxing about the whole thing -- and that people with private
conferences

forbid any copying of material by anyone, member or not, of the
material

if they want control of it and think they can somehow, someway enforce
that.

I don`t see any hope of such control working in cyberspace, and think
we

may have to get used to it or be supplanted by people who don't freak
out

when it happens.

Through backchannels of communication (email) the management of the WELL
contacted the offender and encouraged him to delete the illicit files. While it is not clear
what forms of sanction had an effect, the offender left the system of his own accord
within a week of the discovery of his actions. In the process, he deleted many of his
contributions to the WELL.

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policy.111.230: Michael Newman (jstraw) Tue 30 Jun 92 06:56

duck has deleted almost all of his directory

policy.111.233: Pete Hanson (phanson) Tue 30 Jun 92 11:54

He also hasn't logged in since Jun 24.
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Following his departure the discussion continued with some members expressing regret at his absence and others partially satisfied but still calling for formal rules and sanctions.

Cyberspace and Virtual Worlds

Decorum

Fundamental to any community is the maintenance of a decorum that encourages the continued membership and participation of all participants. If some members become hostile, abusive, or visibly violate the system of reciprocity, other members may become reluctant to continue to participate. The problem exists in the WELL as much as in physical communities, perhaps more so for its acorporeality. Without the threat of physical sanction, some participants in the WELL find that they are more free to vent their frustrations or give free reign to their more hostile inclinations by attacking, mocking, or disrupting conversations and interactions. In some cases this can be tolerated within institutional bounds. The WELL, as most other virtual communities, has special locations for "flaming", the term used to describe excessively aggressive or abusive interactions. Some sections are marked as "free-fire" zones where people interact at their own peril. Surprisingly, these areas attract a great deal of attention and participation. A problem arises when such behavior occurs in unmarked areas. Inappropriate behavior has been the source of much discussion and conflict in the WELL where the community has been founded on principles of maximum individual freedom.

Part of the problem is that boundaries remain somewhat undefined in the community and in most cases are not backed by publicly recognized norms or sanctions. This is especially problematic when the collective goods produced require the maintenance of a decorum that encourages continued contribution. Since most of the goods produced in the WELL are generated through a process of discussion, maintaining the tone of discussion becomes a major requirement for the continued success of the collective. This is problematic for a number of reasons. Discussions are fragile things. They are susceptible to disruption from misinterpreted messages, from a failure to stay on Topic, and from interruption. Furthermore, disruption can be highly context dependent. The WELL has a number of conferences, most notably the Weird conference, in which no rules of order are claimed to exist. This makes Weird a particularly rough-and-tumble place in the WELL. Character assignation, ridicule, parody, and invective are common features of discussion in Weird. However, so long as this behavior remained bounded by the limits

of the conference, the content of Weird did not often interfere with the interactions found in other conferences.

However, early this summer, a group of Weird members invaded a conference entitled Misc. While Misc shares the somewhat unfocused nature of Weird, it is not intended to be as confrontational. Members of Weird added new Topics to the conference that had no relevance to the flow of the discussion so far and added new posts to existing Topics that sought to derail the flow of the Topic. The raid immediately generated a new Topic to discuss the policy about conference disruptions. As is common for incidents like this one in the WELL, the discussion quickly polarized between those calling for the creation of new rules and those who wanted to keep conflict resolution in the realm of informal sanctions.

Topic 99: Policy regarding deliberate disruption of conferences

1: Kim L. Serkes (kls) Tue, Apr 21, '92 (13:34) 23 lines

I'm opening this with an (edited) repost of a response from hosts, my

apologies to those who read it there.

I, for one, want to get the message across that other people have different

goals and visions of what can be done here, that you cannot disrespect them

and disrupt their pursuit of those goals.

The space addressed by "g weird" is, practically speaking, infinite. If the

shape of that space doesn't suit what you want to do, you can create another.

But attacking, to use Boswell's own metaphor, someone else's space is not

acceptable.

There are no limits on what you can do in "weird." There are limits

on what can be done in other conferences. The fact that some people want

to spend their (online) lives in free-fall, that they (claim) to have

dissolved their egos and don't care about anything, doesn't affect the

fact that others want to spend some time in a space where up and down

are defined, where there is gravity, where boundaries exist.

I believe that it should be established that the hosts and users of a

conference have a reasonable expectation that they will not be subjected

to intentional disruption.

While at first glance it seems that such rules are essential for the continued existence of order in the community, the problems of monitoring and enforcement of such rules are significant. Because the WELL is constructed out of symbolic messages, it is subject to the same problems as the task of defining pornography:

Topic 99: Policy regarding deliberate disruption of conferences

2: Cliff Figallo (fig) Tue, Apr 21, '92 (13:42) 16 lines

How do you define a "deliberate disruption of conferences"?

If someone has a good train of conversation going in a Topic and

another user deliberately changes the subject or pronounces the

Topic "bogus" or "assinine", would that qualify? Would a Reagan

Republican entering the Environment conference qualify? What if

the Weird Raid had been less gross but was nevertheless planned to

subtley drift every Topic in another direction?

How was the Weird Raid of more consequence than the sum total of

certain individuals' disruptive effects on other individuals' posts

spread out through many conferences over time? Do conferences have

more rights than individuals?

I'm just pointing out here that formal enforcement is, once again,

full of pitfalls and could lead to unwanted results in the wrong

hands.

Nonetheless, there is reason to accept that disruption is a problem for the community and that the lack of protections or recourse creates limits on the kinds of interaction possible in the WELL:

Topic 99: Policy regarding deliberate disruption of conferences

7: Kim L. Serkes (kls) Tue, Apr 21, '92 (16:00) 29 lines

Fig's points are good ones, of course. Those concerns are the reason

that I'm not trying to codify what constitutes "disruption," but to

leave those questions open. I think that a gang descending on a
conference

and posting off-Topic or hostile responses in many Topics constitutes

disruption. A lone nut (to coin a phrase) zapping through a conference

doing the same thing would be distruptive, too.

The thought in my mind, as I started this Topic, was not to "legislate"

a precise definition of "disruptive," but to discuss whether such is

an acceptable part of life on the WELL.

I don't think that an _a priori_ definition is essential to the
discussion.

Conduct that would be disruptive in one conference might be acceptable
in

another. The question comes down to, in my view, is there any point to

having defined conferences, with hosts and users allowed to shape them,

or is the WELL a place where anyone can do anything, anywhere, any
time?

Of course, this discussion is formed in the context of the present
incident.

I believe that what happened in Misc would be regarded as disruptive in

any conference, at any time. The perpetrators admit that their intent

was disruption. It might stand as an example of disruption, not to

exclude less serious incidents, or ignore the possibility of more
serious ones.

Likewise, I don't want this to be a "trial," or to be a forum calling
for

imposition of sanctions. That can be dealt with on a case by case
basis,

as it should be.

The motive here is to determine what the underlying principle is, to
attempt

to indicate in a general way what's expected.

Despite such arguments, the WELL is very reluctant to impose rules. However, they may be reason to believe that informal sanctions do work:

Topic 99: Policy regarding deliberate disruption of conferences

10: Jeanne DeVoto (jdevoto) Tue, Apr 21, '92 (16:06) 6 lines

Well, it seems to me that the underlying principle is that you
shouldn't

fuck around with what other people are trying to do unless the
entertainment

and/or educational value outweighs the annoyance and disruption.

This is not something that should require a policy statement; it should
be

intuitively obvious to anyone with enough of a forebrain to learn to
type.

Topic 99: Policy regarding deliberate disruption of conferences

11: Howard Rheingold (hlr) Tue, Apr 21, '92 (16:17) 8 lines

```
It seems that way, doesn't it? I wonder why it isn't?

I think there is a strong temptation to blow off steam here, whether

it is in a mean-spirited, cranky, or fun-loving way.

I think the way norms are enforced are by endless braindeadening,

increasingly hostile discussion. The punishment for transgressions is

to have it expand to fill your attention.
```

Nonetheless, this incident resulting in no formal rules or consensus on informal rules. The WELL remains subject to these disruptions.

These episodes illustrate some of the problems facing a virtual community. First, many of the kinds of actions that are considered to be violations are only defined after the fact: too much of the environment is new and many actions can not be predicted. Second, the range of sanctions available to the community are not fine-grained enough to deal with minor infractions. Banishment, either from a conference or from the WELL as a whole is the only punitive sanction available and is often considered to be too severe for most transgressions. Informal sanctions in the form of ridicule, diatribe, and denunciation do have an effect but while they are capable of punishing offenders they are not very effective means to resolving conflicts. The WELL is armed with tools of repressive sanctions but not well stocked with restitutive sanctions. In part this is due to the nature of the media. In the transgression in question, the files that were "stolen" could have been stored anywhere on the system. To locate every copy would require that the management of the WELL scan every file it has stored. While technically feasible, this line of action is considered to violate the privacy of the community's members and is not a sure method of recovering all the copies of the files since it is possible to store them in a completely different system with little effort.

The absence of a formal conflict resolution systems leaves the WELL vulnerable to the inevitable clashes that emerge between its members and the discovery of new ways to violate community norms. Nonetheless, the existing system seems to provide adequate resolution:

" ` I mentioned that the WELL had a method of online dispute resolution which did not involve throwing people off the system,' Kapor[20] said. 'I didn't mention that this works by endless rehashing of issues intermixed with invective until everyone is too tired to go on.' ("Socialising in Cyberspace", New Scientist, 16 May 1992)

While this form of resolution through exhaustion can be said to work to a certain extent (the WELL continues to exist and grow) it is not the optimal form of organization. The conflict resulted in the departure of a regular and active member of the community and

with him the withdrawal of his frequent contributions to the collective goods produced in the WELL. But, as Mancur Olson noted, the potential for a more efficient form of organization does not mean that such a form will be instituted. It has been argued in the WELL that formal rules are inappropriate to the medium in which the WELL exists. With the nearly limitless (un)real estate of cyberspace at their disposal it makes no sense to regulate behavior and impose limits on what remains a nascent form of interaction. Nonethless, as these examples make clear, challenges await those who wish to settle this terrain.

Cyberspace and Virtual Worlds

Discussion:

The most interesting questions about virtual spaces are not directly related to technology. Despite the intimate relationship between the tools and the actions built from or with those tools, it is the social understanding of a tool that determines its use. The distinction between tools and their use is sometimes not apparent, when tools become complex, and their name shifts to technology, the role of social interaction is often overlooked. The result is technological determinism, an unwarranted focus on the tool in place of its user. Therefore, it is important to locate a discussion and study of the ways in which new tools create new terrain for social interaction in the realm of social knowledge and interaction. Despite the unique qualities of the social spaces to be found in virtual worlds, people do not enter new terrains empty-handed. We carry with us the sum-total of our experience and expectations generated in more familiar social spaces. No matter how revolutionary the technology, our use of virtual spaces is evolutionary. The point of greatest interest, then, is that at which an old expectation collides with a new material force and new social structures are born through improvisation and negotiation. The medium is not the message, but it does shape and channel the kinds of messages it carries. But when a medium is very flexible and capable of some complexity, the ways in which a medium effects its contents can become less fixed. New technologies are sites of rapid creation, the event horizon of the social. Furthermore, the act of creation is rarely an individual one, without a collective effort the task of creation is often an overwhelming task.

Cyberspace and Virtual Worlds

Suggestions for Future Research

There has been so little research on virtual interaction that much basic work remains to be done. First, no census of virtual communities has taken place nor have there been any analyses of usage patterns or growth. Virtual communities offer unique opportunities for generating and collecting data on social interaction. The amenability of computer systems to searching, relating, and collecting data on processes they manage means that greater empirical rigor can be ensured in all forms of studies. However, it also raises some important ethical questions that connect social science research to the ethical and moral debates in the computer and information industries. I think the most promising path for further research involves the application of network analysis methods. These methods,

which focus on the patterns of connections between individuals, promise to provide rigorous empirical maps of sets of social interactions. A process that is enhanced and improved by the presence of the phenomenon in a virtual environment.

Conclusion:

Governance and control: Herding mice

The incidents described here provide evidence to dismiss the idea that interaction in virtual spaces is fixed, determined, and easily controlled and directed. Control over the physical technology of a virtual space is no guarantee of control over the social actions that occur within it. Intractable communities often defy the rule of their owners in many ways. Nonetheless, the power over the physical hardware along with the legal right to exercise that power, endows owners and managers of virtual spaces almost god-like control over individual users. Users can be banished, silenced, or publicly denounced with no chance of resistance. However, despite the existence of these powers, as shown here, it is often the case that they cannot or will not be used. These sanctions are often to coarse and too extreme for normal use. More subtle sanctions are needed and available to the community. If, as would seem to be the case, more social interaction will soon take place within virtual spaces, the question and challenges of social organization must be faced. The form of organization in place in the WELL is a kind of benign anarchy. It is questionable wheather this method can or will be applied to other virtual communities. While other systes, such as Prodigy and GEnie, operate with an absolutist regime, it may be possible that the economies of interaction and organization in virtual spaces makes a more anarchic form of organization a realizable and effective alternative. The history of the WELL provides empirical evidence that a mixture of public and private control over a collective good can effectively sustain the production and distribution of that good. In addition, it illustrates the fact that the character of a collective good is an essential element of the kinds of organizations that can be constructed to produce and maintain it. The peculiar qualities of information and interaction make the collective goods produced in the WELL sustainable in the absence of any significant formal sanctioning system. The exciting potential of virtual communities is that this capacity may be extendable back into the real-space of face-to-face interaction.

Appendix A: The Structure of The WELL

Appendix B:

The WELL Conferences

Best of the WELL - vintage material (g best)

WELL "Screenzine" digest (g zine)

Index listing of new Topics in all conferences (g newtops)

Social Responsibility and Politics

Amnesty International (g amnesty) Liberty (g liberty)

Current Events (g curr) Non Profits (g non)

Environment (g env) Peace (g peace)

Firearms (g firearms) Politics (g pol)

First Amendment (g first) Telecom Law (g tcl)

Gulf War (g gulf) Veterans (g vets)

Socialism (g workers)

Electronic Frontier Foundation (g eff)

Computers, Freedom & Privacy (g cfp)

Computer Professionals for Social Responsibility (g cpsr)

Media and Communications

Bioinfo (g bioinfo) Periodical/Newsletter (g per)

Computer Journalism (g cj) Photography (g pho)

Information Age (g boing) Radio (g rad)

Media (g media) Technical Writers (g tec))

Microtimes (g microx) Telecommunications (g tele)

Mondo 2000 (g mondo) Usenet (g usenet)

Muchomedia (g mucho) Video (g vid)

Netweaver (g netweaver) Virtual Reality (g vr)

Networld (g networld) Whole Earth Review (g we)

Packet Radio (g packet) Zines/Factsheet Five (g f5)

Business and Livelihood

Agriculture (g agri) Legal (g legal)

Classifieds (g cla) One Person Business (g one)

Consultants (g consult) The Future (g fut)

Consumers (g cons) Translators (g trans)

Entrepreneurs (g entre) Work (g work)

Investments (g invest)

Body - Mind - Health

Aging (g gray) Jewish (g jew)

AIDS (g aids) Men on the WELL* (g mow)

Buddhist (g wonderland) Mind (g mind)

Christian (g cross) Philosophy (g phi)

Dreams (g dream) Psychology (g psy)

Emotional Health** (g private) Recovery*** (g recovery)

Erotica (g eros) Sexuality (g sex)

Fringes of Reason (g fringes) Spirituality (g spirit)

Health (g heal) Women on the WELL# (g wow)

Holistic (g holi) Drugs (g drugs)

* Private conference - mail flash for entry

** Private conference - mail wooly for entry

*** Private conference - mail dhawk for entry

Private conference - mail reva for entry

Cultures

Archives (g arc) Spanish (g spanish)

Buddhist (g wonderland) Pacific Rim (g pacrim)

German (g german) Tibet (g tibet)

Irish (g irish) Travel (g tra)

Italian (g ital) History (g hist)

Jewish (g jew) Virtual Communities (g vc)

Place

Berkeley (g berk) Northwest (g nw)

East Coast (g east) Oakland CA (g oak)

Environment (g env) Pacific Rim (g pacrim)

Geography (g geo) Peninsula (g pen)

Hawaii (g aloha) San Francisco (g sanfran)

Midwest (g midwest) Southern USA (g south)

North Bay (g north) Tibet (g tibet)

Interactions

Couples (g couples) News (g news)

Disability (g disability) Nightowls## (g owl)

Gay (g gay) Parenting (g par)

Gay(private)# (g gaypriv) Scams (g scam)

Interview (g inter) Singles (g singles)

Kids 91 (g kids) True Confessions (g tru)

Miscellaneous (g misc) Unclear (g unclear)

Weird (g weird)

Private Conference - mail hudu for entry

##Open from Midnight to 6 am

Arts and Letters

Art Com Electronic Net (g acen) Photography (g pho)

Art and Graphics (g gra) Poetry (g poetry)

Band** (g band) Radio (g rad)

Books (g books) Science Fiction (g sf)

Comics (g comics) Songwriters (g song)

Design (g design) Bay Area Siggraph (g siggraph)

MIDI (g midi) Theater (g theater)

Movies (g movies) WELL Writer's Workshop* (g www)

Muchomedia (g mucho) Words (g words)

NAPLPS (g naplps) Writers (g wri)

On Stage (g onstage) Zines/Factsheet Five (g f5)

* Private Conference - mail sonia for entry

** Private Conference - mail tnf or rik for entry (for working musicians)

Recreation

Bicycles (g bike) Gardening (g gard)

Boating (g boat) Motorcycling (g ride)

Cooking (g cook) Motoring (g car)

Flying (g flying) Pets (g pets)

Games (g games) Sports (g sports)

Entertainment

Audio-videophilia (g aud) Movies (g movies)

Bay Area Tonight# (g bat) Music (g music)

CD's (g cd) Restaurant (g rest)

Comics (g comics) Star Trek (g trek)

Fun (g fun) Television (g tv)

Jokes (g jokes)

Updated daily

Education and Planning

Apple Library User's Group (g alug) Science (g science)

Brainstorming (g brain) Indexing (g indexing)

Design (g design) Network Integrations (g origin)

Education (g ed) Transportation (g transport)

Energy (g power) Whole Earth Review (g we)

Homeowners (g home) Earthquake (g quake)

Co-Housing (g coho)

Grateful Dead

Grateful Dead (g gd) Deadplan* (g dp)

Deadlit (g deadlit) Feedback (g feedback)

GD Hour (g gdh) Tapes (g tapes)

Tickets (g tix) Tours (g tours)

Grapevine** (g grape)

* Private Conference - mail tnf for entry

**Private Conference - mail rebop or phred for entry

Computers

AI/Forth/Realtime (g realtime) NAPLPS (g naplps)

Amiga (g amiga) NeXt (g next)

Apple (g apple) OS/2 (g os2)

Art and Graphics (g gra) Printers (g print)

Computer Books (g cbook) Programmer's Net (g net)

Desktop Publishing (g desk) Bay Area Siggraph (g siggraph)

Hacking (g hack) Software Design (g sdc)

Hypercard (g hype) Software/Programming (g software)

IBM PC (g ibm) Software Support (g ssc)

Lans (g lan) Unix (g unix)

Laptop (g lap) Virtual Reality (g vr)

Macintosh (g mac) Windows (g windows)

Mactech (g mactech) Word Processing (g word)

MIDI (g midi) CP/M (g cpm)

Mac System7 (g mac7) Scientific computing (g scicomp)

The WELL Itself

Deeper (g deeper) Hosts (g host)

Entry (g ent) Policy (g policy)

General (g gentech) System News (g sysnews)

Help (g help) Test (g test)

Users (g users)

Appendix C: The Virtual Communities Conference

Welcome to Virtual Communities!

Topic- Number of responses - Header

2 0 Conference Announcements

<Topic is frozen>

3 144 Introductions

6 9 Pointers to Relevant Topics Elsewhere in the WELL

7 177 The WELL as a community

8 64 Communities within the WELL

9 78 WELL as Collaborative Tool

<linked Topic>

10 109 Public Internet Access

<linked Topic>

11 199 AMIX - American Information Exchange

<linked Topic>

12 254 MUDs and MUSEs

<linked Topic>

13 61 You and your individual relationship with the WELL Community

14 51 Science and The Net

<linked Topic>

15 28 Habitat - a virtual community in Japan

16 151 Are you a *LURKER*???

17 10 The NSF's Internet Resource Guide

18 179 The WELL of the Future

<linked Topic>

19 1 Hosts, Moderators, Fair-witnesses... Those Who Commit to Being
There

20 71 Online Personae: Boon or Bete Noir?

21 120 Oldtimers and Newusers

22 56 Dealing With Strangeness

23 9 The Roots of Computer Conferencing

24 42 The WELL in transition

25 70 Private conferences....the new virtual suburbs?

26 70 What are the characteristics of "community?" What makes one?

27 21 Using Metaphors to Describe Online Culture -- what are the
limits?

28 52 WELL's Mission Statement -- What Would it Be if it Existed?

29 10 What does the Well *do* for users?

<linked Topic>

30 6 Online Community and Shared Work

31 31 What makes the Well special?

32 30 Those darn ineffable variations of virtual place

33 182 Online Governance

34 10 Control, Responsibility, and Commitment

35 33 WELLness

36 36 WELL Diaspora

<linked Topic>

37 12 On-Line Suicide

38 148 Online Metadiscussion as a Source of Irresolvable Conflict

39 6 The Salon, the Show, the Festival as Community

40 432 Designing an Electronic Democracy: What Does It Really Mean?

<linked Topic>

41 13 Businesses in the Virtual World

42 20 Other Virtual Communities

44 20 Communities, affinity groups, cliques, gangs: degrees of affiliation.

45 5 Usenet and Newsgroups as Virtual Communities

46 9 Realtime Communities? Chatlines, CB, IRC

47 21 College and identity, real and virtual community

48 16 The Wired Society and Crime Reduction

<linked Topic>

49 65 Metaphors for the WELL Experience

<linked Topic>

50 107 Zen and the Art of the Internet

<linked Topic>

51 206 Oral History of Bozo Filters on the WELL

<linked Topic>

52 21 Online Addiction/Obsession

53 17 Virtual Community vs. Christian Community

<linked Topic>

54 33 Online conversation--what do *you* like?

<linked Topic>

55 324 GEnie censorship

<linked Topic>

56 27 Picturing the Well: Numbers that tell the whole story.

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Footnotes

[1] Gibson, Neuromancer, p. 51.

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[2] As a newly (re-)revealed territory, cyberspace evokes in many the visionary zeal created by previous frontiers. Utopic visions of new Albion, dreams of vast potential and wealth, and hopes for freedom and self realization abound in discussions of cyberspace. There is no doubt that cyberspace is a frontier, one that has opened up within the existing territorial bounds of society, and that it is one that may invalidate some of those bounds. It is a special kind of frontier: in this frontier there are no indigenous populations to displace, and with that absence the need to construct ideological justifications of manifest destiny and white-man's burden are also absent. But the fact that cyberspace is currently only sparsely populated does not mean that it is morally neutral. Far from it. What already exists in cyberspace, the vast collections of data and technologically instantiated systems of human organizations, are replete with human interest and ends. We should no more expect cyberspace to be exclusively a site of emancipation and self-realization than we should have expected the new world to be.

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[3] Stone (1991) reports that the first Bulletin Board System (BBS), the CommuniTree, went online in May of 1978 in San Francisco. A BBS is often a fairly simple system, composed of a computer managed by special software connected to one or more modems (telephone interfaces) and phone lines. Typically a BBS will allow people to connect to it via a computer, modem and phone line, and, once connected, to leave messages for other users, upload (send) and download (receive) software, text files, and high resolution pictures, and even connect to one or more of the larger networks such as the Internet. BBS's are often run as a hobby, allowing access for little or no fee. In many cases, these systems are the site of the grass-roots growth of technologically mediated communities. BBSs range in size from a few users to hundreds.

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[4] There are other objects that can be exchanged through virtual spaces. Software is perhaps the most common. Many systems allow software to be stored for later retrieval by members of the community, and contribution to the collective's library of software is a common form of exchange. Images, often of photographic quality, along with computer generated artwork is also a common object of exchange. A significant minority of these images are sexually explicit, but they are also often of scientific or technical interest. As networks are increasingly refined they will be able to carry larger loads of information at greater speeds. As a result, the forms of representation will undoubtedly expand beyond the current text and limited graphics. Speech, music, moving images, and complex

models will likely pass through networks with ease. How this will effect virtual communities based on text is an open and interesting question.

---

[5] The WELL has recently connected to the INTERNET, widening the scope of affordable access to encompass anywhere in the world with an INTERNET connection. The INTERNET currently serves 76 countries on 7 continents and is accessed by over 15 million people. [Current data has been requested from John Quarterman of Matrix Industries, a company that specializes in network connectivity in general and the Internet in particular.]

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[6] An alternative form of the header is generated by a program called "extract". This program creates a single line header like the following:

```
Policy.111.65: pseud (hank) Mon 22 Jun 92 21:28
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[7] THE WELL HOST'S MANUAL, section 1.3, number 2.

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[8] IRC stands for Internet Relay Chat. It is a multichannel text "CB" system in which users of the Internet are able to send messages to all others who have logged into the same "channel" at the same time. The IRC draws users from all over the planet.

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[9] The term MUD (Multi-User Dimension) is used as a generic description for a multi-person virtual space in which users are able to perform textual equivelants of interaction in "real-time", that is synchronously. It differs from the IRC in that user are also able to construct and manipulate a wide variety of objects. As a result MUDs may provide a more complex environment for interaction than IRC.

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[10] The term "bandwidth" is used to describe the carrying capacity of a communications medium. While bandwidth is often used in terms of quantifyable units like bits-per-second, even narrow bandwidth lines can carry nuanced and expressive messages. However, a narrow bandwidth line does sometimes preclude the exchange of various kinds of symbols. For example, most computer networks are currently incapable of exchanging full-motion video images.

[11] John Perry Barlow, Mondo 2000, Issue #1, p. 24

[12] A userid is a unique lable each member of the WELL community selects to identify their contributions to the community. Userids, however, need not have any relation to the individual's given or legal name. As a result, while the participant's on-line identity collects the results of their interaction, no connection is necessarily made to the "real" person.

[13] Defining what is sufficient can not be accomplished in the abstract, but it is clear that certain collective tasks do not require as much commitment as others. Where the economies of monitoring and sanctioning systems are favorable it may be possible for a collective to produce a common good with minimal self-generated commitment. In place of commitment effective coercion ensures sufficient contribution and regulated consumption.

[14] This term is introduced by Elinor Ostrom to describe collectively produced resources.

[15] However, there are private conferences, which are accesible only to those whose names are added to a list (called a .ulist) by the conference's creator. Private conferences have recently grown rapidly in number in the WELL, a point I will take up again below.

[16] ASCII stands for the American Standard Code for Information Interchange. Pronounced "Az-key", the term means that only letters and numbers are displayed within the Well, no facility is available for presenting graphics, pictures, sounds, or images. The result is a minimal environment that, nonetheless, supports a wide band of expression.

[17] Files on the WELL, like most UNIX-based systems, can be protected in various ways. Files can be public and readable and writable by anyone on the system, or read-only, or completely private. The file in question here was initially written as publicly read and writeable and later made private. It was in the intervening time that the file was copied.

[18] I use the term libertarian here loosely to denote a distinct disinclination to formal control systems and a reluctance to create or accept a higher authority and not to associate all members of the WELL with the Libertarian party or its specific platform or philosophy. Nonetheless, there is a visible segment of the WELL that does identify itself as Libertarian.

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[19] Acronyms are a common form of expression in the WELL. TPTB = The Powers That BE.

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[20] Mitchell Kapor, founder of the Electronic Frontier Foundation (EFF) and member of the WELL.