CHARACTERIZATION OF FREE-NETS IN THE UNITED STATES AND CANADA: FACING HISTORY AND MANAGING THE FUTURE

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Abstract

The explosion in the number of Free-Nets and their organizing committees over the past two years attests to the popularity of community-based computing. But, the goal of these organizations is farther reaching than merely strength of numbers; they want to change their communities for the better. In order to assure an important and relevant place in the community, Free-Nets must face the history of the other community-based information service provider: the public library. Once this is done, Free-Nets must focus on achieving results, not merely on achieving continued existence.

The word Free-Net is used with increasing frequency, not only in the library community, but in fields as diverse as communications and city planning. There is good evidence of a Free-Net movement which has the potential to bring lasting change to our communities. While attempting to gather empirical data on Free-Net administrative structure, I was frustrated by the fact that each network is unique; a product of the community it serves and of the people who volunteer to keep it running. There are vast differences in day to day numbers between the larger (and generally older) networks with a paid staff, and the small, all volunteer networks.(see Note 1) However, several management needs are evident among all members of the "movement". After, a brief history of the Free-Net movement, this paper will expose the pitfalls of relying on an idealized version of library history, and will apply Peter Drucker's insights into managing public service institutions.

In 1978 Starr Roxanne Hiltz and Murray Turoff published *The Network Nation: Human Communication via Computer*. This "bible" of computer conferencing

analyzed not only the state of the art in computer mediated communication, but also made broad predictions about the future. Although over-optimistic about the rate at which computer mediated communication would spread, the *Network Nation* provides a firm foundation for study today. One advance which Hiltz and Turoff were unable to predict was the incredible power of the micro-computer (Hiltz and Turoff 1993, xxx-xxxi). For a reasonable amount of money, an individual or small group can now acquire the same amount of computing power that a university might have had only a decade ago.

As computing power per dollar continues to rise, so does the ability of individuals to own and operate increasingly sophisticated conferencing systems. All over this continent, and indeed throughout the world, communities are coming on line with their own, locally operated, computer mediated communication systems. A *community network* consists of people using computers or terminals to access a central computer which provides services and connects them to each other. What differentiates a community network from GEnie, Prodigy, America Online and a score of others is the concept of *local information*. Local civic groups and businesses may provide information about the community. Bus schedules, calendars of events, connections to local doctors, lawyers, mechanics, law enforcement, librarians and connections other citizens all characterize community networks (Cisler 1993). The founder of Free-Net computing, Tom Grundner, adds that

> [a]nyone in the community with access to a home, office, or school
> computer and a modem can contact the system 24 hours a day. They
> simply dial a central phone number, make a connection, and a series of
> menus appear on the screen which allows them to select the information or
> communication service they would like. All of it can be accomplished by a
> first-time user . . . the system is literally run by the community itself.
> Almost everything that appears on one of these machines is there because
> there are individuals or organizations in the community who are prepared
> to contribute their time, effort, and expertise to place it there and operate it
> over time (Grundner)(see Note 2).

The story of the Cleveland Free-Net has achieved the status of myth in the Free-Net community. In 1984, Dr. Tom Grundner, a researcher at Case Western Reserve, started a computer bulletin board system called "St. Silicon's Hospital and Information Dispensary". Through St. Silicon's, the public could dial in using personal computers and pose medical questions which would be answered by physicians within 24 hours (Toms 1994, 311-312). Today the Cleveland Free-Net is a collection of more than a dozen machines all operating in coordination with each other handling over 12,000 logins a day.(see Note 3)

In order to share his vision of community computing Grundner founded the National Public Telecomputing Network. The NPTN is a non-profit corporation which Grundner likens to National Public Radio and Public Broadcasting on television. The term Free-Net is a registered service mark of NPTN, so any Free-Net is an NPTN affiliate. The NPTN has three major objectives:

> 1. To help people in cities throughout the U.S. and the world to establish open access community computer systems.

> 2. To link those systems together into a common network.

> 3. To help supplement what the local systems are able to produce with high quality network-wide features called "Cybercasts" (Grundner).

If success is measured by the addition of new system then the NPTN is successful indeed. David Mattison cites 19 Free-Nets in January of 1994 (Mattison 1994, 46). In October, 1994, 30 systems were operational (Toms 1994, 312) and by November, 42 affiliates were on line (Beamish 1995, Ch.2). As of March 3, 1995 there are 51 NPTN affiliates and 114 organizing committees in 10 countries (see *supra* note 2).

Free-Nets, however, are not without their critics. In her recent thesis, Anne Beamish addresses many of these issues. One wide-spread criticism is the primitive interface. In order to allow users with low-end computers to access the system, the FreePort software (developed at Case Western Reserve University), used by many Free-Nets, lacks any type of graphical user interface. However a few Free-Nets offer World Wide Web interfaces so that users with higher-end

machines can have a more graphical environment (Beamish 1995, Ch.2; Mattison 1994, 50). Whatever the style of interface, Free-Nets also offer electronic mail. If the Free-Net is connected to the internet, then the network users have an internet mail address. Some commercial providers feel that this crosses the line into their market for services. Grundner claims that rather than reduce the market for commercial services, Free-Nets "increase the pool of telecomputing literate people to whom commercial services could eventually be sold"; (Beamish 1995, Ch.2).

Free-Nets are only one model for community based computing. At the Apple Conference on Building Community Computing Networks held in May 1994, Mario Morino of the Morino Institute presented the results of a year and a half inquiry into community networking. The Institute came to the harsh conclusion that:

> Community networking entrepreneurs face a formidable challenge: Are they part of a social phenomenon that is destined to stall or implode or do they represent a vibrant force, capable of building on the knowledge they have accumulated, adapting to a rapidly changing world and community needs, and ultimately achieving positive, lasting social change in their communities? In 20 years, when we look back on the 1990s, we want to recognize this period as one of historical significance - as the time when we were able to achieve positive social change in our communities by using electronic communications as a vital enabler to bring people together, to share, learn, and work together to solve their problems.

> In all candor, though, we suggest that the first option - a stalling or implosion - is quite likely and, for some, already predictable. The surge in interest must be matched with an influx of significant funding and a step-increase in the functionality and quality of the underlying technology; otherwise, an implosion is likely. *There are few worse situations than an enormous build-up in interest that goes unsatisfied or, worse, is ineffectively addressed* [emphasis added]. There is a window of

opportunity in which the community networking movement must establish itself in a sustaining manner. This window of opportunity will not remain open for long, as major non-profit organizations and a raft of commercial interest parties have picked up on the importance and relevance of this emerging marketplace. This is not a time for community networkers to maintain the status quo (Morino 1994).

Libraries and librarians have been involved with Free-Nets since their inception. As their philosophical antecedent, however libraries are lacking. This public library analogy appears frequently in the discussion of Free-Nets: that the same egalitarian spirit which founded public libraries should apply to Free-Nets and indeed to all community networks (Mattison 1994, 48). While this connection to the past may be good public relations, it fosters a dependence on what can be described, at best, as an idealized version of library history. Historian Michael Harris told us over two decades ago that this century inherited libraries which were "characteristically inflexible, coldly authoritarian, and elitist" (Harris 1973, 2511)(see Note 4). It was nearly four decades into this century before the library was

portrayed as an institution which could play a vital role in promoting and preserving democracy. The public library, conceived as a deterrent to irresponsibility, intemperance, and rampant democracy, and administered in an elitist fashion by librarians and trustees from the middle and upper classes, came in time to be viewed by librarians as a guardian of the peoples right to know (Harris 1973, 2514).

This is *not* to say that Free-Nets should abandon their partnership with public libraries. On the contrary, public library support is vital to the success of the Free-Net movement. However, if the public library is truly the ancestor of the Free-Net movement, then Free-Nets should learn from library history so that they may avoid some of the shortcomings of public libraries as a service institution. This "promoter of democracy" philosophy is as appealing today as it was 60 years ago. Harris list five reasons for this appeal. Two are especially relevant to community computing.

[T]his philosophy placed the responsibility for library use on the patron, not the librarian. The librarian need only provide access to the information; the user was responsible for coming to the library to acquire it. The emphasis was on the library as guardian of the information; very little attention was devoted to the dissemination of this information once acquired by the library. Librarians no longer need worry about their inability to interest large numbers of people.

[T]his new philosophy did not conflict with the librarians' elitist leanings. While they were charged with providing access to library materials on a broad and liberal basis, they knew that in reality the audience for the book is self-limiting, and that the nature of the library's actual clientele could remain basically unchanged. This suited librarians, for they felt comfortable with the middle-class patrons who made up the majority of the library's clientele (Harris 1973, 2515).

If Free-Nets are to attain their goals of providing open access and affecting community change, they must recognize these biases which are ingrained in providing information services to the community (see Note 5). Although, the founders of the public library in the United States may not have been committed to egalitarian principles, the leaders of the Free-Net movement seem to be. But, commitment is not enough. Individual Free-Nets are successful through the dedication of a few exceptional individuals. However, a movement which will affect community change for decades can only remain relevant by achieving *results*, not by merely having good intentions.

Management philosopher Peter Drucker is often associated with the concept of defining an organizational mission. While a seemingly trivial task, correctly defining the mission of an organization is paramount to its success. If the railroad companies of the early 1900s had established themselves in the transportation industry, rather than the railroad business, they might have retained their firm economic position (Rue and Byars 1992, 153). Free-Nets compete with other institutions for funding from both private and public sources. As funding becomes even more scarce, only the most productive organizations will survive.

Drucker lists three popular explanations for the failure of service institutions to perform (Drucker 1973, 46)

1. Their managers aren't "businesslike"

2. They need "better" people

3. Their objectives and results are intangible

The first complaint may seem to be the least worrisome to Free-Nets. However, "being `businesslike' is the wrong prescription for the ills of the service institution. The service institution has performance trouble precisely because it is *not* a business. What being `businesslike' usually means in a service institution is little more than control of cost. What characterizes a business, however, is focus on results. . . [T]he basic problem of service institutions is not high cost but lack of effectiveness" (Drucker 1973, 46).

The success of many individual Free-Nets today can be attributed to the work of a few motivated people. However, if a true, sustained movement is to take place, the need for exceptional individuals who "volunteer" for several hours a day needs to be minimized.

> [S]ervice institutions cannot, anymore than businesses, depend on "supermen" to staff their managerial and executive positions. There are far too many institutions to be staffed. If service institutions cannot be run and managed by men of normal-or even fairly low- endowment, if, in other words, we cannot organize the task so that it will be done on a satisfactory level by men who only try hard, it cannot be done at all (Drucker 1973, 47).

Finally, and most applicable to Free-Nets, is the claim that objectives and results are intangible. Intangible objectives are present in business as well as well as in service institutions, but businesses set quantifiable goals against which to measure success.

> Achievement is never possible except against specific, limited, clearly defined targets, in business as well as in a service institution. Only if targets are defined can resources be allocated to their attainment, priorities and deadlines be set, and somebody be held accountable for results. But

the starting point for effective work is a definition of the purpose and mission of the institution-which is almost always "intangible", but nevertheless need not be vacuous (Drucker 1973, 49).

Free-Nets will have to be increasingly vigilant in order to avoid the plight which Drucker calls "misdirection by budget"(see Note 6). Business are paid because they produce goods or services which people are willing to buy. So, the basis for performance and results is satisfaction of the customer. However,

being paid out of a budget allocation changes what is meant by "performance" or "results". "Results" in the budget-based institution means a larger budget. "Performance" is the ability to maintain or increase one's budget. The first test of a budget-based institution and the first requirement for survival is to obtain the budget. And the budget is, by definition, related not to the achievement of any goals, but to the *intention* of achieving those goals (Drucker 1973, 50).

Many Free-Net administrators say that they perform *no formal evaluation* (see *supra* note 1). As most practicing information professionals know, it is easy to get buried under a mountain of statistics. However, gathering statistics is not the same as performing evaluation. Lancaster points out that "an evaluation is performed not as an intellectual exercise but to gather data *useful* in problem-solving and decision-making activities" (Lancaster 1993 1). Evaluation doesn't even have to be internal. Information professionals are in a perfect position to help Free-Nets reach their potential by examining information services and needs in their own communities.

In terms of numbers, the Free-Net movement seems likely to continue its already incredible success. While the institution of the library can be looked upon as a model in various areas of information service and management, it can't link Free-Nets to an egalitarian past which did not exist. If the movement is to continue to affect change in communities during the next century, Free-Nets must be well managed, relevant institutions. As information scientists, the possibility for study in this new medium is overwhelming. The following is the Morino Institute's *Ten Suggestions Toward Ensuring the Survival, Relevance and Prosperity of*

Community Networking. Each one of these could suggest at least ten projects to take up with your local Free-Net.

The Morino Institute's Ten Suggestions Toward Ensuring the Survival, Relevance and Prosperity of Community Networking.

* Aim High: Work Toward Positive Social Change - set your vision on the ultimate goals of positive social change in your community, and maintain that focus in all that you do

* Serve the Needs of Community - build and develop your network to meet the ever-changing needs of your community

* Engage the Broader Community - expand and recompose your leadership to represent all the people you serve and establish an effective communications program within the community

* Broadly Re-Define Support - establish an infrastructure, a support plan and full-time staff to support the community network

* Establish a Sustaining Economic Model - move aggressively toward self-sufficiency and end dependence on outside funding

* Build a Strong and Open Technological Base - understand the issues of growth, scale, and interoperability - and how they relate to your system

* Make Information Relevant to Your Community - add value and context to the vast amounts of information available, by filtering and structuring it toward your local needs

* Ensure Broad-based Access - work to provide comprehensive physical access to your network, improve its ease of use, and make useful relevant knowledge a staple of its appeal

* Prepare for Competitive Times Ahead - take an objective look at other not-for-profits, as well as commercial services, and look to strategic partnerships whenever possible

* Collaborate to Represent a Powerful Movement - community networking leaders must reach out to one another, share information and resources, and speak to the world with a common voice - toward common goals

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Notes

1. I had initially intended to perform an empirical study of Free-Net administration. I predicted that there would be a low non-response bias for an e-mail survey of Free-Net administrators. However, this was not the case. A preliminary questionnaire was sent to the contact person for each NPTN affiliate in the U.S. and Canada. the response rate was too low to generalize about Free-

Nets as a group. But, the responses suggested that in general, Free-Nets lack a firm theoretical base for existence and management. This led me to connect the work of both Harris and Drucker to the Free-Net movement.

2. Grundner's online essay at NPTN is not dated. Several other good resources are also available online. One of the best studies of a community-based computing network is Willard Uncapher's study of the Big Sky Telegraph in Montana: *Rural Grassroots Telecommunication*, available at URL=gopher://gopher.well.sf.ca.us:70/00/Community/communets/bigsky.txt. A most complete gathering of Free-Net information is provided by Peter Scott at URL=http://duke.usask.ca/~scottp/free.html

3. Information from the Admin/About the Free-Net Computers menu and login information on the Cleveland Free-Net (telnet: freenet-in-a.cwru.edu). A current list of all Free-Nets and their telnet addresses (if applicable) is available via anonymous ftp from nptn.org in pub/nptn.info/nptn.affil-organ.list.

4. Harris' 1973 paper in *Library Journal* was quite controversial and sparked what became know as the Harris/Dain debate. Historian Phillis Dain directly opposed Harris' view. Harris' interpretation has since become the dominant paradigm.

5. The Seattle Community Network lists the following as its guiding principles: Commitment to Access; Commitment to Service; Commitment to Democracy; Commitment to the World Community; and Commitment to the Future. (Available via anonymous ftp from nptn.org in pub/nptn.docs/seatle-principles)

6. Although Free-Nets don't necessarily depend on budget allocations for funding, they are susceptible to the budget problems of which Drucker speaks. For a good discussion of funding issues see *Free-Net Strategic and Marketing Plan* at URL=gopher://freenet.victoria.bc.ca/00/industry