The Development of the National Information Infrastructure (NII) and the Fate of the American Welfare State: Implications for Nonprofit Human Services Agencies.

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The coming information economy will bring with it major changes in every domain of American society (Dillman, 1991; 1985; Cleveland 1985a;1985b; Williams, 1988). A critical part of this information economy will be the information infrastructure system (US Department of Commerce, 1993; Comptroller General of the United States, 1994, Gore, 1991; Clinton, 1994; Huffman & Talcove, 1995). This new structure will replace the existing information infrastructure (separate telephone, cable and computer linkages)[1] and will serve the same purpose for the information sector that physical infrastructure (railroads, highways and so forth) serves for the industrial sector (Huffman & Talcove, 1995; Comptroller General of the United States, 1994). A set of policies is presently emerging to govern this evolving system and the content of those policies will be influential in determining who will be the winners and losers (organizations, as well as individuals) of the new economy (McNutt, 1995a; 1995b; Huffman & Talcove, 1995). This paper discusses the potential impact of the emerging National Information Infrastructure policy framework for the American welfare state with particularly attention to the nonprofit human services sector.

The paper has five parts. First, the paper will discuss the major features of the coming information economy. The implications for work, poverty and income distribution will be highlighted in this discussion. Building on this discussion, the paper explores the impact of this economy for the welfare state. The role of the nonprofit social service sector in this coming system will be highlighted. Next, the paper considers the national

information infrastructure debate. Major positions are considered and the possible impacts of those potential decisions on society are presented. This is followed by a consideration of the possible consequences of this situation for nonprofit social service sector. Finally, conclusions are drawn and some consideration of the strategies that nonprofit sector could take to protect itself are presented.

The Coming Information Economy[2]

Much of the industrialized world is on the brink of a new age (McNutt, 1995a; Dillman, 1991; 1985; Williams, 1988; Cleveland, 1985a; 1985b, Naisbitt, 1982). The information sector has begun to displace the industrial sector in North America, Europe and Japan (Beninger, 1988; Naisbitt, 1982; Porat, 1977). This sector relies on information technology and knowledge work as a means of production. Information products will become the store of value in this sector of the economy (Cleveland, 1985a; 1985b; Williams, 1988; Dillman, 1991). This transformation will change the nature of work and worklife and may change the character of income and poverty (McNutt, 1995a). The dominance of this sector will bring with it an information society, defined by Dillman (1991, p. 925) as:

> The term *information society* and similar concepts such as information age and knowledge economy describe a society where there is great dependence on the use of information technologies to produce all manner of goods and services.

This information society will diminish (but not eliminate) the industrial sector and further reduce the importance of the agricultural sector (Dillman, 1985; 1991). Goods and services will continue to be produced in these sectors, but information based products (For

example, entertainment, computer programs, data and methods to produce or market goods and services in the other sectors) will become more central to the economy as a whole.

Work will be organized along different lines in the information sector, and, perhaps, the other sectors as well. Telecommuting, usually defined as performing work at a remote location, can reduce the impact of distance and ease the meeting of family obligations for many workers (Greengard, 1994; Huey, 1994; but see Forester, 1992) . They could work at home or at remote job sites and send their work to a central processing are through computer networks. The need for large numbers of people concentrated in a single place is reduced. While the factory system (that lead to urbanization) was functional for manufacturing (Garvin and Cox, 1987; Toffler & Toffler, 1995), it is less essential for information tasks. While it is, of course, difficult to say what portion of the jobs in the economy will eventually use telecommuting, clearly many economic activities can be decentralized. Location becomes less crucial in an economy where many goods and services can be transferred instantaneously. This will have implications for regional growth and the fate of communities.

The development of "Edge Cities" (functional cities on the fringes of existing urban areas) has been documented (Labich, 1994) and is a consequence of the growth of the information sector. While some cities (such as New York, London and Tokyo) will become Global Cities (Sassen, 1991), wielding enormous amounts of information based power and wealth, others will suffer from the continued loss of economic activity to the edge cities and elsewhere. Many of the losers will be older cities with declining tax

revenues and a large population of people who cannot be incorporated into the changing economy. They are also cities that are likely to have large voluntary social services sectors (see Wolpert & Reiner, 1985).

The nature of information work could lead to many workers being employed on a piecework or consulting basis. Some futurists argue that jobs (Bridges, 1994), as we know them, are only relevant to an industrial economy and will be eliminated by the rise of the information sector. People will obtain work (but not permanent jobs) from organizations (or, perhaps from networks of people) and will be compensated by the organization for their efforts. There will be no long lasting relationship between people and their employer, beyond that dictated by immediate mutual need. We have already seen increases in temporary and part time work situations and this trend shows every evidence of continuing.

This is not to say that manufacturing jobs in factories will not exist in an information society. The agricultural sector continued (and will continue in an information society) after industrialization. Society will continue to need manufactured goods and many of the changes that will occur in the information sector will not occur in the remaining industrial sector. On balance, information technology (such as robotics) may displace workers in the other sectors to a considerable degree (Rifkin, 1995). The industrial and agricultural sectors will shrink and workers will be displaced as the economy restructures.

Information technology will probably lead to changes in the way that work organizations are designed (Huey, 1994). Bureaucracy, it is frequently observed, is an

efficient way of coordinating the activities of many workers through hierarchy/supervision or rules (Galbraith, 1973). New developments in information technology reduce the need for direct human control and, therefore, for a hierarchy (Huey, 1994; Cleveland, 1985a; 1985b). This can lead to a flattening of organizations (Huey, 1994). While the control issues become more complicated in an information economy, the tools to accomplish the tasks are more sophisticated (Beniger, 1988). If, as some have argued, a few full time workers will be replaced by many workers who are temporary or part time (Bridges, 1994; Huey, 1994), the environment may become too turbulent and complex for bureaucracy to survive. New (non-hierarchical) forms of organizations will be needed to manage this turbulent environment. The growth of temporary and part time labor combined with the control advantages of information technology will create an environment that will favor smaller organizations (Huey, 1994; Toffler & Toffler, 1995). All of this will have implications for the future welfare state.

Changes in the Welfare State

If we assume, as many scholars have, a symbiotic relationship between the economy and the welfare state (Wilenky and Lebeaux, 1965; Rimlinger, 1966; Rochefort, 1981; Mishra, 1984), it is reasonable to conclude that economic system form and welfare state form are related. Given this assumption, it is also reasonable to reach a conclusion that the current welfare state is only functional for an industrial society. Given the changes in the economy that occur when the information sector becomes dominant, it is likely that the welfare state will change to correspond to the new economy.

The relationship between work and welfare is a complex issue that scholars have long debated (Tropman, 1989; Popple & Leighninger, 1990). In the United States, programs that are more generous are related to worker status and those that are highly stigmatized and miserly are designed to serve non-workers (Popple & Leighninger, 1990).

The workplace is the central tie between the social insurance programs (OASDHI, Worker's Compensation, Unemployment Insurance) and the recipient (Popple & Leighninger, 1990; McNutt, 1995a; 1995b). One effect of information sector dominance is that the tie between the workplace, as we currently regard it, and the worker may be diminished as many workers become self employed contractors and part time and temporary work (such as contract work) becomes the norm. Since it is much less efficient to collect from single workers than large corporations, these programs will become more difficult to administer (although technology will ease this burden). The distinction between full and part time employment and unemployment may become indeterminate. These distinctions are only meaningful in a world where permanent or semi-permanent jobs are the norm. At what level of work do you become unemployed and, therefore, eligible for benefits?

General income protection programs make more sense in situations where definitions of employment become more fluid. Another interesting dilemma will be the definition of work related injury (for Worker's Compensation). If a telecommuter is injured in their own home, is this a work-related injury? Greengard (1994) indicates that many workplace laws (such as wage and hour laws) apply to telecommuters. Enforcement

of these protections could be difficult. National health and disability insurance are more reasonable solutions than continued reliance on worker's compensation legislation.

More problematic is the range of occupational welfare services (Titmuss, 1974), such as health insurance and employer provided child care, pension plans and training. These programs are usually intended to foster the employee commitment to a work organization. If workers are engaged in temporary work, commitment is not as important and employers may not provide benefits. While the worker can purchase his or her own coverage, the advantages of group coverage are not always available. Workers who are uninsurable or have family members who are uninsurable will not be able to purchase coverage. In addition, economies of scale are lost and the price of social protection rises.

If we consider providing these services important, public programs may have to replace these occupational welfare programs. To do this, income maintenance programs will have to become more independent of the workplace. National health insurance and income protection programs may be the only way to assure adequate social protection for many workers.

Public welfare programs (such as AFDC and Food Stamps) will have to be redesigned to meet new workplace realities. While the current distinction between social insurance and public welfare programs may have been questionable in the past, it becomes almost indefensible when definitions of employment decay in the face of new realities.

Social service delivery will also reflect societal change. The problems will change as people confront new realities and the decline of some familiar practices (Toffler & Toffler, 1995). While much of our way of life will remain the same, there will be

important changes. Social change is always difficult and many changes will affect sensitive areas of life. Telecommuting, for example, will give people more time to be with their families and communities. This will be difficult for some workers. Information poverty will expand the size of the poverty population. While some of the current underclass will find their lot improved by the rise of the information sector, many others will see no change at all. The new poor of the information age will combine with the current poverty group to confine a larger segment of the population to reduced circumstances.

The technological revolution will revolutionize social services delivery. Technology could allow physically challenged people to participate in society and the economy, if they have access to that technology (Bowe, 1993). Information technology can facilitate case management, client tracking, information and referral, educational interventions (basic literacy, job training, computer skills and so forth) and so forth (Butterfield, 1995). Social service delivery is not only labor intensive, but most of it involves substantial amounts of both repetitive and nonrepetitive information work. Freed from mundane information tasks, workers will be able to devote more effort to client focused interventions (Schoech, 1990). Decision support systems and related technologies (such as expert systems) will facilitate the more judgment oriented parts of social services work (Gingrich, 1990; Schoech, 1990).

Social services agencies have been developed around industrial models (Wilensky and Lebeaux, 1965). Bureaucracy has been the norm for governmental agencies and many traditional nonprofits. The ways that they will be organized in the future will probably shift, for the same reasons that other organizations will change. Network organizations

(Huey, 1994) are one possibility, as are highly decentralized organizations based on purchase of services (Kramer, 1994).

An important part of the service delivery system is the nonprofit or voluntary social services sector (Wolch, 1990). Like the welfare state, the development of this sector is closely tied to the industrialization process that took place after the Civil War (Garvin & Cox, 1987). While developments in the decades following the War on Poverty changed and enlarged the sector (Salamon, 1994), the links to industrialization are still discernible. The traditional agencies continue to have strong ties to business (especially industrial) interests and tend to be organized along either bureaucratic lines (similar to factories) or along professional organization lines (similar to law firms and group medical practices) (see Toffler & Toffler, 1995). The information economy could lead to many modifications in this sector. Changes in the role and structure of the nonprofit social services sector, adjustments in its ability to compete with commercial interests and shifts in clientele and intervention technologies will face many agencies. Many of these revisions will be associated with the development of the national information infrastructure policy framework that will play a major role in defining the information economy.

National Information Infrastructure Policy

The new national information infrastructure will shape the information sector of the economy. Often called the *Information Superhighway*, it will facilitate the transfer of huge quantities of information between users (Comptroller General of the United States, 1994). The core of this system consist of high capacity cables, software, mechanisms for switching and sorting messages and rules and protocols for data utilization. Distinctions

between different kinds of information (voice, data, image) will fade (Comptroller General of the United States, 1994). There are both technical and political issues that must be resolved before this system is complete (Comptroller General of the United States, 1994). It is worth noting that while a better system seems inevitable, it is by no means clear what system will emerge. The current Internet is usually considered a prototype or testbed for the NII (Batty & Barr, 1994; Ogden, 1994), but further development may not parallel the evolution of the Internet.

Our current information infrastructure will not be adequate to the task of supporting the coming information sector. It is difficult to synthesize information from various forms and transmission is often slow and even uncertain. If an improved system is not developed, the information sector cannot continue to develop. Part of this process will be an improved policy framework. The current system is governed by a legal structure that was formed in the 1930s. The Federal Communications Act of 1934 defined many of the early parameters of telecommunications policy and defined how information infrastructure for the late industrial period in American society developed (Healey, 1994, May 14; November 26; Bowe, 1993). As communication technology matured, problems developed with the policy framework. When the original framework was created, information infrastructure consisted largely of separate telephones, radios and print media. While the Communications Act of 1934 has been amended and revised, and supplemented by other legislation, there is growing support for the development of a new policy framework (Ness, 1994; Reed, 1994; Healey, 1994, May 14; November 26; 1995, September 16; Weingarten, 1995). Many of the aspects of this framework serve to inhibit

the development of new technologies and there is some indication that it restricts competition to an undesirable degree. On balance, some of these policies protect universal access to telephone and basic cable service, some level of public service content, some protection against concentration of power and access guarantees for some categories of nonprofits (Healey, 1994, May 14; November 26; Bowe, 1993).

In the past several years, Congress has attempted to pass legislation that would redefine the information infrastructure policy framework (Healey, 1994, November 26; 1995, September 16; Bowe, 1993; Reed, 1994). Many of these efforts have been less than successful and it remains to be seen if the current telecommunications legislation will survive (Healey, 1995, September 16).

There are at least two general conceptions of how these policies should be formulated. One approach would aim at creating a system that was characterized by governmental intervention, public interest criteria, universal access, protection of user information and protections from concentrated power. The other set of policies would deregulate the system, hopefully freeing actors to use a wide variety of new technologies in creative ways and fostering competition that is intended to lower prices and improve services.

The first set of policies is advocated by the Clinton Administration and many of the public interest groups working on telecommunications policy. The Administration's view is presented in a documented entitled National Information Infrastructure: Agenda for Action (US Department of Commerce, 1993; Reinhardt, 1994; Comptroller General of the United States, 1994; Clinton, 1994). This document envisions an NII with a strong public

service component and a considerable role for government. Policies would assure universal access for a basic set of services to all citizens. Government services would be available through the network and public discussion would be facilitated through its communication capacity. The health, education and social services sectors would have easy access to the network, as would their clients (U. S. Department of Commerce, 1993; Reinhardt, 1994; Comptroller General of the United States, 1994; Clinton, 1994; Ogden, 1994). Commercial services would make use of the NII and the private sector would pay for much of the network (Reinhardt, 1994). There is some question about the extent to which lofty goals can be reached and the extent to which the private sector will be willing to invest in a network with such high public service overhead. The system will be too expensive for government to fund, so some level of private sector support is essential (Reinhardt, 1994). Most of these proposals advocate controls on consolidated power, but contain less regulatory language than earlier policies. Similar proposals are advocated by a number of interest groups (Civille, Fidelman and Altobello, 1993; Cooper, 1992; Jordan, 1992; Ogden, 1994).

The second set of policies stress deregulation and depend on the market system to provide the universal access and public interest goods (Healey, 1995, January 15; 1995, September 16). This position has been adopted by the Republican majority in Congress, as well as industry groups (Healey, 1995, January 15). The current house and senate telecommunications bills are examples of this policy position. The basic assumption is that the current regulatory environment prevents both the development of new technologies and the effective use of existing technologies (Ogden 1994; Rinehardt,

1994). If these restrictions are removed, the market system will encourage the creation of an effective system. Some of the public interest criteria advocated in the other policy school (such as universal service) are seen as barriers to the development of an effective system. Some proponents argue that a deregulated system will eventually deliver the public benefits. It is difficult to believe that nonprofits of any type will be protected by the market system (Grant, 1994, February 16; Green, 1993, October 19).

Much of the current discussion has less to do with the overall network than with the local access points. There is currently considerable interest by local telephone and cable companies about who will control these "on and off ramps" to the "information superhighway." Many decisions about universal access and public good provision will be made at this level (Reinhardt, 1994).

Since the information infrastructure will serve to shape the information sector and distribute its benefits, how it is designed and governed will be crucial to nearly everyone. Access to the information infrastructure will also mean potential access to the economy. Currently, much of this access is supplied through (1) universal services (such as telephones and basic cable service) and (2) through employers. This could change as universal access is scraped in favor of competition and the nature of work and employment changes. Whole segments of the population could be left out of the information sector because they lack either access the network or the ability (either in terms of training or equipment) to make use of it. The possibility of *electronic redlining* has been raised by advocates as a real threat to various population groups (Stuart, 1995). Under the second set of assumptions, corporate decision makers would be able to exercise

and unprecedented level of control over who would have access to employment and the other benefits of the information infrastructure (Reed, 1994; Ness, 1994). This will also be true for organizations that do not control the information infrastructure (Greene, 1993, October 19).

Whatever is decided, the outcomes will be significant for the nonprofit social service system (Greene, 1993, October 19). There will be implications for agencies, workers, client groups and the sector as a whole.

Impact of National Information Infrastructure Policies on the Non Profit Service Services Sector

The potential impact of the national information infrastructure on the nonprofit social services sector will depend on which vision of the national information infrastructure policy framework is realized. While the conservative deregulatory advocates appear to have the upper hand, the policy framework will probably evolve over a number of years, with a corresponding number of shifts in political fortunes. In any event, the national information infrastructure is likely to affect at least four areas in the conduct of nonprofit social services agencies: funding and fundraising, management, clients and service delivery methods. In each of these areas, access to the NII will be of critical importance to nonprofits and their clients (Greene, 1993, October 19).

Funding and fundraising: The changing nature of the workplace will present both challenges and opportunities for nonprofit funding. The workplace campaigns conducted by United Way (Brilliant, 1990) and similar federated fundraising organizations will change when factories and large office buildings are replaced by decentralized

telecommuters and part-time and temporary workers. There are economies of scale in soliciting contributions from concentrated workplaces (Rose-Ackerman, S. (1980).[3] This situation could disappear, leading to a declining level of support for nonprofit social services. On balance, the network could facilitate fundraising by giving organizations access to people who are not working in a concentrated setting, but have network access (Greene, 1993, October 19). This can only occur if the fundraising organization also has access to the network. The network could also facilitate connections to a wider range of contributors outside traditional geographic areas. This will become more important as edge cities expand, leaving a reduced donor base in existing urban areas. The workplace fund raising monopoly that United Funds have traditionally had (Brilliant, 1990; Rose, 1994) may be eliminated by the network (Bothwell and Dailey, 1993). The network could level the fundraising playing field, creating the ultimate alternative fund.

The shrinking size of governmental organizations, coupled with the improved ability for controlling a decentralized service delivery system afforded by information technology (Beniger, 1988) could further encourage the growth of contracting (Kramer, 1994; Salamon, 1994). In fact, public agencies may downsize to the extent that they deliver no services. This might be combined with a loss of autonomy for nonprofits as greater control becomes more feasible through technology.

Management: Nonprofit managers struggle on a daily basis with tasks that require information about the environment (Perlmutter, 1995; 1990; Herman & Heimovics, 1991). The network could facilitate strategic planning, marketing, resource mobilization and other activities that require information about the environment by making access to such

data easier and faster (Downing, Fasano, Friedland, McCollough, Mizrahi, & Shapiro, 1991; Greene, 1993, October 19; Deacon & Golding, 1991; Grant, 1994, February 22). Highly developed information and data base facilities are currently available through the Internet and may become even more sophisticated as time goes on. This may eliminate much of the primary data gathering usually associated with planning and management activities. Human resource operations (Greene, 1993, October 19; Greengard, 1994) could also be facilitated by giving organizations access (via network) to prospective employees and supporting training and development activities. Evaluation and monitoring are additional functions that could be made more efficient with the network. On balance, if a nonprofit either lacks access to the network or the ability to use the network, it will be at a disadvantage in competition with other nonprofits or profit making firms (Greene, 1993, October 19). We could see a two track nonprofit sector, with those nonprofits that lack access to the network suffering reduced effectiveness, while those with access become more successful (Greene, 1993, October 19). It is likely that nontraditional agencies (Perlmutter, 1988) and those agencies that deal with poorer clients will suffer most, as these agencies are less likely to have the financial capacity to purchase access. On balance, smaller, non-traditional agencies may be quicker to adapt to changing circumstances (Perlmutter, 1988). There is evidence to suggest that, while many nonprofits find information technology valuable in their work, the sector has yet to make sizable investments of time or money in acquiring such tools (Greene, 1993, October 19).

Changing Client Groups: The impact of the network on the sector clients will depend on whom the individual agency serves and whether or not they have the access and the

ability to use what the system provides. The rise of the information sector will create a new group of disadvantaged people -- the information poor (Greene, 1993, October 19; McNutt, 1995a; Murdock & Golding, 1989; Stuart, 1995). How large this group will be depends, to an extent, on the way that the NII policy debate proceeds. Without guarantees of universal network access, the phenomenon of high tech redlining (Stuart, 1995). could deny network access to whole communities and the lack of computers and computer skills could prevent many others from taking advantage of the service that they have (McNutt, 1995a). These populations could be disenfranchised from the information sector and left to compete for a smaller number of industrial and agricultural positions. Those who are not successful would join those who are excluded from the other sectors to create a new underclass. Many of these new poor will come from the current middle class clientele of traditional non profit social services agencies (factory workers and some middle managers, for example). This may lead to reduce funding from fees and donations, as well as changing service patterns as agencies attempt to help their clients cope with new realities.

Service Delivery Methods: Non profit social services organizations make use of a wide range of intervention methods, including counseling, education, information and referral, advocacy and so forth (Blau, 1995). Many of the information processing tasks that compose a large part of social services work can be performed by information technology, leading to higher productivity and potentially lower costs (Butterfield, 1995; Schoech, 1990; Deacon & Golding, 1991).

Computerized testing and case management programs are already available and decision support systems for many problem areas are being developed (Butterfield, 1995). It is possible that a wide range of additional intervention technologies will be developed.

New, technologically based, interventions are also possible (Schoech, 1990, Butterfield, 1995). Teleconferencing can be used to link clients with distant workers and to link workers with resource people in other parts of the nation or the world (Cunningham & Porter, 1992). Computers can do some kinds of intervention and assessment (Butterfield, 1995; Gingrich, 1990; Heather, 1994). Clearly technologically based systems have some advantages over human teachers (McNutt, 1995b; Guskin, 1994). Self servicing is one emerging form of service delivery (McNutt, 1995a; Civille, Fidelman, and Altobello, 1993). This technique allows clients to access agency services (such as information and referral, self care information and so forth) through a remote computer system.

The changing nature of the client base could lead agencies to implement new interventions aimed at emergent needs. Many of the traditional middle class clients of mainstream nonprofit agencies (largely factory workers, but some middle managers) may need retraining to deal with the new labor market requirements (Huey, 1994). Technology could prepare these clients for new work roles and teach them new skills that are needed for information sector employment (Guskin, 1994; Jensen, 1993, Schoech, 1991).

Technology could also be important to advocacy activities (Downing, Fasano, Friedland, McCollough, Mizrahi, & Shapiro, 1991). The network would give the

advocate the opportunity to reach many more people with their message (Greene, 1993, October 19). At the same time, research and coordination activities, the heart of many advocacy operations, will be facilitated by network access (Downing, Fasano, Friedland, McCollough, Mizrahi, & Shapiro, 1991).

Directions for the Sector

The nonprofit social services sector will have to mount a serious effort to insure its place in the information society. This will require strategies on several levels of analysis. At the policy level, it will be important for the sector to use its capacity to influence public policy. The social services sector is relatively small and lacks political power. On balance, many nonprofits with larger and more powerful constituencies (Private Universities, for example), have similar interests. It will be important for the social services sector to develop coalitions with these more powerful nonprofits. The Benton Foundation's work in analyzing telecommunications policy and educating the nonprofit sector for effective intervention is important in this context (Blau, 1995; Greene, 1993, October 19). The policy framework must guarantee network access for nonprofit social services agencies at costs that are reasonable in light of their limited financial means. At the same time, it is important for policies to guarantee a certain level of universal services for everyone.

At the local level, the development of community networks could represent a means for nonprofit social services agencies to gain network access if policy-level assurances are not forthcoming (Schuler, 1994). These networks (sometimes called Free

Nets [4]or Community Nets) operate at the community level and offer an impressive range of low cost or free services. Some of these services include e-mail, access to governmental information and services, information and referral, self care information and a wide range of related features (Schuler, 1994; Civille, Fidelman, and Altobello, 1993; Fidelman, 1994). .They can be linked with national networks via gateways and provide an alternative to commercial access services. This will avoid the commercial (on and off ramps) access points. By creating partnerships with community networks, nonprofit agencies could enjoy many of the same services that are available through the network and have the additional benefit of local community contact.

In sum, the National Information Infrastructure could have a considerable impact on the future of nonprofit social services agencies. If this is to be a positive effect, the public interest criteria in the policy framework must be preserved. Non profit agencies must be able to use the network if they are to survive and flourish in the new economy. Much of the sector's ability to pursue funding, manage programs and deliver services will depend on network access, the availability of technology and the ability to use what is available.

The developing policy framework must include provisions to protect nonprofit human services agencies from the tendencies of deregulation efforts to ignore their interests. Nonprofit agencies have much to contribute to the post industrial social service system. It is essential that they are given the opportunity to do so.

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Endnotes

[1] The development of *Digitalization* [conversion of all types of transmission (voice/sound, print, data and so forth) into digital code] creates the opportunity to integrate information media (Comptroller General of the United States, 1994)

[2] This discussion builds on the analysis in two earlier papers (McNutt, 1995a and McNutt, 1995b)

[3] Booth, Higgins and Cornelius (1989) explored the effects that community characteristics have on United Way funding. They found that, among the factors that predicted lower levels of giving was limited manufacturing employment.

[4] The term *Freenet* is a trademark of the National Public Telecomputing Network.