



The Failed Promise of Hypertechnology in Social Work

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Author(s):	<i>Larry W. Kreuger, and John J. Stretch</i>
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Larry Kreuger, PhD, and John J. Stretch, PhD

Introduction

As more universities and professional associations strive to provide continuing education (Thyer, Polk, & Gaudin, 1997) they are likely to turn to computer-mediated distance education technologies. But, research in social work and related fields is beginning to report that hypertechnology has not lived up to its promise, (Gladieux & Swail, 1999). After an examination of some of the major concerns which have been cropping up regarding the what has become known as the "worldwide hypertechnology assemblage" (Wise, 1997), presented is a discussion of a set of recommendations developed by Mander (1992) to caution social workers about blind acceptance of the new hypertechnology.

How Has Hypertechnology Failed to Live up to Its Promise?

Human service agencies have been caught up in a number of new and emerging hypertechnologies which are altering relationships among administrators and staff, practitioners and clients, helping to create what Brahm and Driscoll (1995) call "prosthetic territories." It is here that electronic machinery, with varying degrees of immediacy, are interposed between two persons. The authors identify seven ways in which hypertechnology has failed to live up to its promise.

Hypertechnology Substitutes Sterilized Electronic Exchanges for Face-to-Face Communication

The use of one-way and synchronous electronic communication has created a host of potential pitfalls regarding communication skills and the social work practitioner. Unlike face-to-face interaction in conventional agency settings, where both practitioner and client share in the creation and execution of the present moment, electronic technology has instead restricted knowledge of other participants to available photographic images. Users experience flattened and truncated two dimensional views. Hypertechnology communication programs have

been designed to increase efficiency by reducing communication to the bare essentials, but meanings traditionally transmitted non-verbal communication and tone of voice have been all but eliminated. Hypertechnology Generates Technospeak.

Technical specialists, hired to solve problems no one else knows how to handle, communicate with each other and with naive users by applying concepts which are highly specialized in terms of jargon and argot (Kling 1996). These specialists should not determine the shape of language used in the human services. We agree with symbolic interactionists that to a large extent language creates minds and selves (Stretch, 1967), and we should not ignore the implications of the impact of technological usage may have on our practice narratives and helping paradigms (Kreuger, 1997).

Hypertechnology Valorizes Quantitative Over Qualitative

Oppenheimer (1997) argues that flattened computer screens tend to exercise primarily the left hemisphere, where sequential thinking occurs. According to Oppenheimer, "The right brain, gets short shrift—yet this is the hemisphere that works on different kinds of information simultaneously, serving as an engine of creative analysis." Studies have shown that three dimensional graphics packages can lead individuals (users) to generate totally incorrect conclusions out of material which experts agree had barely enough value to merit a single dimension to begin with (Tufte, 1983).

Larry W. Kreuger is Associate Professor, School of Social Work, University of Missouri, Columbia, MO 65211.

John J. Stretch is Professor, School of Social Service, St. Louis University, St. Louis, MO 63103.

Hypertechnology Requires Endless Funding

According to Tenner (1997), we need to be skeptical about the actual value of more powerful new releases of both hardware and software, for example, as "...electronic storage can both reduce the consumption of paper and it can also multiply it." Energy which was formerly available for helping and healing is now being spent on practices which seem to amount to a kind of conspicuous consumption and object fetishism in the office. According to Kitchen (1998), the amount of time we spend trying to stay technologically current may foreshadow the sacrifice of sound practice in the field for busy consumerism in the office. As Wise (1997) warns, is this "Flight into hyper-cyber-space just another middle-class flight to the electronic suburbs?" How do we justify the large expenditure of resources applying hypertechnologies that are unavailable to most of our clients because of cost?

Hypertechnology Creates Intrusive Organizational Infrastructures

Weizenbaum (1976) claimed that in many ways our decision structures have become increasingly dependent upon technology to the extent that we no longer understand what is really going on, since no one seems to know the criteria or rules on which hypertechnology's logical software codes are based. Second, according to Weizenbaum (1976), technological systems have become increasingly immune to change, as modifications are more and more likely to render the whole system inoperable or even unrestorable. Both of these conditions heighten our reliance on technical elites. According to Murphy, (1997):

The technical experts are often under great pressure to come up with methodologies yielding results favorable to prevailing political and economic interests. This provides a formidable breeding ground for shallow science. (p. 162-163)

Hypertechnology Threatens Privacy

A critical issue in social work education and social work practice is access to confidential information. According to Whalen (1997), network administrators have the capacity to peek at employee screens in real time, scan data and e-mail at will, tabulate keystroke speed and/or accuracy, overwrite passwords, and even seize control of a remote workstation if they deem it necessary. Do we want this type of control in agency settings. Laudon, (1996), in an analysis of the literature on privacy and technology, concluded that, "...existing privacy laws do not protect privacy well....law in general is far behind the developmental trajectory of information technology" (p. 701). One of the authors recently received the following message from a colleague:

There is a new virus going around. It is called the MEMORANDUM virus. If you seen a message in your e-mail titled, "It Takes guts to Say 'Jesus'," do not open it. The virus will erase your hard drive. There is no known cure for it as this time, It works off of the reformat function in Norton Utilities. There is much worse than the Melissa Virus. Just erase the message without opening it.

There are reports of increased spending to prevent hackers and viruses from disrupting administration and staff activities. Costly solutions to the attacks of software hackers and virus creators are eating up resources in ways which have yet to be fully documented. According to Thurow (1996), over a million security guards have been employed to protect corporate technology, among other things, with little evidence of a drop in the crime rate for companies involved.

Hypertechnology Harms Third World Workers and the Environment

Social work ought to take center stage in the pursuit of environmental conservation. But new technology can be costly for the environment, according to Rushkoff (1997), who reports that the production of a single six-inch silicon wafer requires "...2,275 gallons of de-ionized water, 20 pounds of chemicals and 285 kilowatt hours of electrical power (and generates)...25 pounds of sodium hydroxide, 2840 gallons of waste water and 7 pounds of miscellaneous hazardous waste." Rushkoff (1997), maintains that we owe it to ourselves to carefully consider each new acquisition of technology in terms of how it will increase productivity, considering the strain put on natural resources.

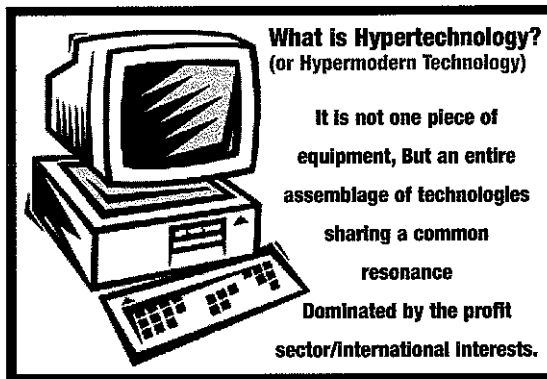
Borsook (1996), too, warns of the negative environmental impacts caused by the manufacture of plastics and semiconductors, both of which depend heavily on non-renewable resources. Borsook is particularly worried that as a society we are ignoring the fact that high-tech companies are fabricating equipment in poorer countries which often lack environmental standards or worker safety codes.

Given these seven ways in which hypertechnology has failed to live up to its promise, what should we do as social workers? The authors have adapted a set of nine recommendations developed by Mander (1992) which suggest some ways in which the profession should respond.

Nine Recommendations on How to Adjust to Hypertechnology in Social work (Adapted from Mander, 1992)

Below we describe a set of nine recommendations by Mander which we apply to social work settings. Each recommendation concerning how we can adjust to the incredible growth of hypertechnology in the human services.

1. Each piece of equipment is only one tiny part of a larger assemblage of hypertechnology which operates globally through an international market system.



2. Since most of what we know about hypertechnology in the human services comes from its proponents, be deeply skeptical at all times.

For example, software such list-serves and e-mail programs, so important to the electronic office, promise to link administrators, staff, practitioners and clients together, but they may actually promote social distancing through the forced exchange of time-staggered messages.

Such programs assure that in-person social work communication is being avoided, not encouraged.

3. Assume all hypertechnology in the human services guilty until proven innocent. The consequences of the increasingly widespread interposition of machinery between social work practitioners and those seeking resources, especially in regard to how they inform key components of social work relationships, are not well understood. According to Dede (1991),

At the present time, the affective dimension of technology-mediated messages is muted compared to face-to-face interaction... people develop intellectual but not interpersonal skills (p. 149).

In an analysis of the economic impact of modern technology in the last decade, Thurow (1996), questions why, if technology has been functioning as predicted, we are not better off with regard to productivity:

Economic productivity statistics over the past ten years have shown the worst gains in history...running at one quarter the productivity rates of the 1960's. Higher productivity in auto manufacturing, for example, is being offset by more congestion on the highways. (p. 19A)

4. The fact that hypertechnology in the human services often has natural flash and appeal is meaningless. Negative attributes are slow to emerge.

Hypertechnology seems to have arrived as if by epiphany, having been decided somewhere else and by someone else that we can't live without it. Never mind that hypertechnology invites a kind of anti-community by requiring forms of "post-it-note" communication which ultimately destroys communal participation. Increasingly elaborate forms of technology available to ever larger numbers of human service professionals and clients over progressively larger territories has eroded the centrality of face-to-face conduct, creating what Fisher, (1995), called "communities without propinquity."

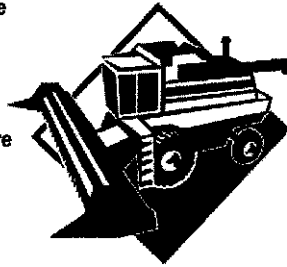
5. Never judge hypertechnology in the human services by the way it seems to benefit your personally. Seek a holistic view of its impacts. The operative consideration is not how you benefit, but who benefits most, who loses, and to what end.

Hypertechnology Broken Promise #1

We're generating more reports with fewer spelling mistakes!

But we're using up more resources...

And we can't spell.



The ideology which accompanies hypertechnology has followed the collapse of the traditional grand narratives in the human services (Karger, 1983), which historically provided the foundation for the preventive and ameliorative agendas we shared as a profession. We have witnessed recently the shallowing of the social work knowledge base (Kreuger, 1999), the routinization of human services delivery, and the market-driven ascendance of cyborg logic. A cyborg is, according to McWilliam and Taylor (1996):

Effectively, a human-technology fusion, a fantastic body that is not collapsible onto anatomy, gender or sexuality but is a body that is all and everything. The cyborg possesses, in the words of Sofia (1995, 153), 'a polymorphously perverse fantasy body that can possess combinations of organs not found in nature.' (p. 168-169)

Practitioners and academicians alike have been caught unawares trying to make sense out of the new forms of hypertechnology which have disrupted traditional practice. We can find no conceptual framework for dealing with hypertechnology and no unambiguous administrative logic to help assimilate it into practice.

Hypertechnology Broken Promise #2



We need just one more
unit and all of our
problems will be solved...
Actually, the data gets
better, but whose problems
are you solving?

6. Understand how hypertechnology in the human services can become a system of control, manipulation and surveillance. Speak out about this situation.

We agree with Marcuse (1964), that technology's danger lay in its totalizing nature, for to control machinery is to exercise political power. The rationalization required of social work practice through hypertechnology has created a class of political, economic, and technical elites who eventually come to inform consciousness itself. As a profession, we seem to have come to the point that goals can presumably only be achieved by convincing all parties at interest to define happiness solely in terms of the hypertechnological choices, but not to choose to reject wasteful consumption to begin with (Ferre, 1995).

The root of the new technological repression lies in consciousness itself, the elimination of the change for the Reason of Plato to function in its gadfly role. When everything present is affirmed, when everyone is happy, then imagination itself is crippled in its power to take account of the absent, to long for what is not. Marcuse realizes that the surly refusal to 'go along' with the rational society must appear neurotic. (p. 71)

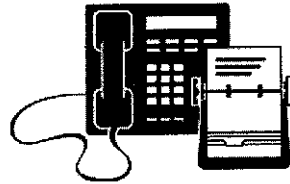
7. When it is argued that the benefits of hypertechnology in the human services outweigh harmful outcomes, recall Lewis Mumford's warning that this is nothing by a fanciful type of intellectual bribery.

While supposedly involving only contentless, passive supportive service delivery or educational broadcast systems, hypertechnology actually represents the height of materialism in the ascendancy of the tool to replace the individual and the stories we tell. Hyper-technology tends to hide the question of how it got to where it is, who really benefits and what its implications are.

Hypertechnology Broken Promise #3

Finally, we have everything we need!

Not for long...
The marketplace will
make sure you never
really catch up.



Further, by insisting on its own obsolescence, technology disguises its origin. By constantly ignoring it's own past, it threatens the individual's (user's) stock of knowledge. It creates a cyborg-like dependency based on brittle circuitry which constantly reminds us that a total collapse of the present moment awaits, leaving the self existentially alone but scarcely equipped to take advantage of promise of history (Stretch, 1967).

8. Do not accept the principle that once it is out of the bottle, etc. that you cannot reject hypertechnology in the human services. Such attitudes induce passivity and victimization.

Types of Hypertechnology Victims

1. Direct Exposure victims

Daily users

2. On-Site victims

Co-workers who are not daily users

3. Contact victims

Clients/collateral personnel

4. Vicariously Involved victims

Families/friends

5. Peripheral victims

Third World workers/children

the very status of object itself-something standing firmly over against us-just being what it is-is lost by the technological reduction of existence to those things waiting to be used (Ferre, 1995). This sort of instrumentality in the human services drives out every other possibility of being and revealing, undercutting the very foundation of social work as a profession.

We agree with Agger (1991), that communication should not so much be seen as transmission but rather as construction and conversation. To be effective it must be both thoroughly textual and dialogical. Thus, it follows that for human service workers to understand hypertechnology we must first develop a narrative which demystifies those precious objects which too often are held up in sacred and privileged ways by those who worship at the altar of efficiency only.

Just as Agger (1991) recognizes that every reading changes a text, so too must every techno-encounter (usage) be seen to change hypertechnology. Hypertechnology cannot be fully narratively understood apart from the interpretive practices of those who engage it. Hypertechnology can only have meaning in specific places, it is given its sense only when individuals (users) participate in it as fully privileged narrative partners.

We agree with Fisher (1992) that we need must create new narratives which free us from technobondage.

The narrative paradigm presupposes a world constituted by stories and the view that no form of discourse is to be privileged over others because its form is predominantly argumentative. No matter how strictly a case is argued, theologically, scientifically, philosophically, or legally, it will always be a story. (p. 209)

Technology by itself, Heidegger asserted, is rarely the issue. Technology can be trivially seen to include both end-seeking human activity and the use of equipment, tools, and machines to achieve those ends to control nature (Ferre, 1995). The problem of technology, according to Heidegger, is that before one can attempt to control nature, there must first be an inclination to improve efficiency, the technological a priority, which is not in itself a machine or anything overtly technological, but rather a pragmatic motive. But this is only part of the problem according to Ferre (1995).

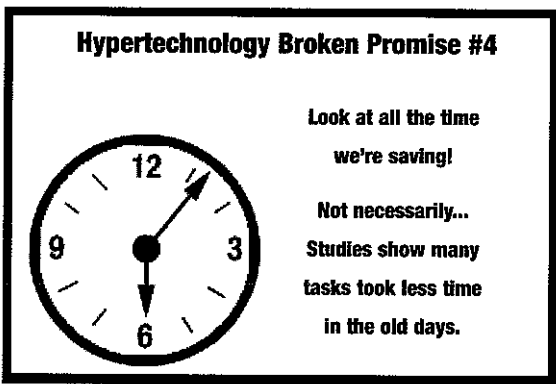
Ontologically, Heidegger claims that regardless of the type of object (technology) under discussion,

9. In the present climate of administrative ecstasy over hypertechnology in the human services, emphasize the negative; this brings balance. Negativity is positive.

With Derrida (1976), we understand that hypertechnology is problematic in the sense that it conceals conflicts within it between different "authorial" voices.

Conclusion

In recent years, social work as a profession has been carried away by a historically unprecedented wave of sophisticated and costly "hyper" technologies (machines with interpose between client and clinician or between student and teacher) which have inundated practitioners, administrators, and educators alike. But as a profession we have not addressed the consequences of the post-industrial promise of machine efficiency. The authors argue that pressures to adopt almost every new hypertechnology without supportive data on practice or educational effectiveness has helped to destroy the very foundation of social work as a profession. Instead of actively addressing the proper role of hypertechnology in social work head on, we have instead witnessed the indiscriminate use of new machinery without regard to issues of effectiveness. After reviewing critical ways in which hypertechnology has failed to live up to its expectations, the authors reviewed a set of guidelines suggested by Mander (1992) to guide their thinking about how they wish to participate in the hypertechnology assemblage.



The assemblage of hypertechnology must be seen as a contested terrain in the sense that what it appears to "say" on the surface cannot be understood without reference to the concealments and contextualizations of meaning going on simultaneously to mark its significance (e.g., use of specialized jargon). These concealments and contextualizations might be viewed as the assumptions that every hypertechnology makes in presuming that it will ever be completely understood.

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