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Abstract

This article examines the impact of computerization on record keeping. Particularly important about automated records is that their content becomes reified, thereby distorting the nature of client data. Because the technical side of documenting a client's activities is stressed, the existential nature of behavior is obscured. As a result, a practitioner may not gain much insight into the motives and social situation of a client. Yet without this information, irrelevant advice may be prescribed by a social worker. Accordingly, technology must not be allowed to alter the existential process of creating a client's biography in a record.

Introduction.

Now that 1984 has passed, persons can reassure themselves Orwell's predictions were wrong. There is no police state, no two-way T.V.s in every home, no torture, no Big Brother. There is no mass surveillance, propaganda machine, or thought control squads. People are still free to speak their minds, vote in free elections, and participate in the free enterprise system.

Of course, there is some evidence of "double speak" in the speeches of the political leaders. There is a mood of political conservatism and retrenchment. Social programs are being cut while the country is told that more money is now spent than ever on the poor. Prison populations are on the increase. Stricter discipline is being advocated for schools, while advances in computer technology have made it possible to keep billions of records on individual citizens. This perceived intrusion prompted the 1977 Privacy Protection Study Commission to write:

In a larger context Americans must be concerned about the long

> term effect record keeping practices can have not only on relationships between individuals and organizations but also on the balance of power between government and the rest of society. Accumulations of information about individuals tend to enhance authority by making it easier for authority to reach individuals directly. Thus, growth in society's record keeping capability poses the risk that existing power balances will be upset (Burnham, 1980: 205).

The Commission, of course, was concerned with the proliferation of records, as a result of the seemingly infinite record keeping capacity of computerized systems to store hundreds of thousands of "bits" of information on a single micro-chip.

It is estimated that the Federal government alone has over three billion records on individuals, not to mention the records of banks, credit bureaus, and insurance companies (UCLA: 1371-1498). The Internal Revenue Service, Census Bureau, the Armed Forces, State, County and municipal tax offices, motor vehicle departments, licensing bureaus, the Federal Bureau of Investigation all keep computerized records on millions of American, which the average citizen knows nothing about unless there is a problem; e.g. credit is denied or a license revoked. Employers keep personnel records; schools keep testing and achievement records; hospitals keep treatment records; welfare agencies keep eligibility records. Fortunately, all of these records are not computerized and there is no centralized national data bank as was forecasted in the 1960s. Still the capacity is there.

In a previous paper, I (Holbrook, 1983a) have stated my concern about the validity of welfare case records, the imbalance of power between the client and agency in terms of recording data, as well as the taken for granted notions of the objectivity and accuracy of the information they contain. Just as average citizens know little or nothing of the information recorded about them, welfare clients have not rushed to see their case records. Why should they? In fact, until 1974, with the passage of the Freedom of Information Act, welfare recipients were not allowed to read their records. But even with legal permission to challenge and correct errors in their records, most clients are unaware of any problems until it is too late (Wilson, 1978: 26-27).

Only those inside the welfare system really know the margin for

error in case records, as well as the amount of interpretation and judgment that goes into what is recorded as a "social fact." Even experienced caseworkers ignore the "proactive" determinants of record keeping, that is the purpose, motives and goals of both the welfare organization and the individual caseworker (Cochran, Gordon, Krause, 1980). In order to get on with their jobs, caseworkers have to believe in the objective character of case records. If it is in the record, it must be true. After all, ten or twenty other previous caseworkers cannot be wrong. But in order to understand what this has to do with computers it is necessary to grasp the historical significance of new technology upon the written word.

Old and New Technology

The last time technology had a major impact upon the practice of social work was at the turn of the century when the typewriter transformed social work record keeping practices from pen and ink to print. Ada Sheffield wrote: "Indeed, it is a question whether we should today be thinking about record keeping as an expression of social casework, were we still held in bondage to pen and ink. The typewriter is bringing about a change even in the subject matter of our social case histories" (Sheffield, 1924: 75). She credits this labor saving technology with improving both the quantity and quality of case records.

With the invention of the typewriter, record keeping was made easier, less time consuming and more thorough. Now, computers with word processing capability promise additional savings in time, labor, and increased efficiency. The old manual record keeping systems are criticized as labor intensive, requiring the input of many people and as a result are more susceptible to error and less accessible. Computerized record keeping, on the other hand, allows immediate "fingertip" access and improves the accuracy, reliability, and usefulness of information. Market analysts and salesmen claim that the only limit to a computer's capability is an individual's imagination. But, it is the computer market's myth of greater accuracy and less error that this paper challenges.

Computer buffs have an adage: garbage in equals garbage out. The application of computer technology to old records or to new information has no greater claim to accuracy than the typewriter. People make records and decide what is fact, conjecture, belief and self evident.

Human judgment or interpretation is not improved substantially by placing those facts in a computer for instantaneous retrieval. However, "soft" data may take on the appearance of "hard" data when processed and printed out with the machine-like eloquence of a computer. Henry Waldgrave, writing in 1917, asked:

> Can it be held that the difference between using a typewriter and 'writing by hand' is purely and simply a matter of degree--that the machine serves the same kind of result as the pen but simply does the work more easily, rapidly and neatly...The change wrought is a transcendence of the earlier level of experience and valuation, not a widening and clarification of vision on that level. And the standards which govern on the new level serve not so much to condemn the old as to seal its consignment to disuse and oblivion (Sheffield, 1924: 76)

He believed that as large-scale technological change occurs there is a corresponding alteration in a society's values and beliefs concerning written documents. But what is this change that new technology produces? What are these new values and standards?

Although I know of no empirical study assessing either Sheffield's or Waldgrave's observations regarding the typewriter's technological impact, I believe a clear parallel can be drawn between the introduction of the typewriter in the 19th century and computer technology, specifically upon record keeping and social work practice. As Waldgrave foresaw, new labor saving machines not only do work more easily, but also qualitatively change the way work is organized, the speed with which information is processed, and persons' attitudes toward record keeping. These changes seem to go unnoticed or are taken for granted with time. Perhaps it is worthwhile to examine the implications of computerized record keeping systems before they too are replaced with something new.

Labeling Theory and Computerized Records

Records have been kept since the creation of civilization and are here to stay. In fact, many historians equate the beginning of civilization with the development of systems of writing and recording. Over the centuries, written words have assumed greater significance, power, and authority, as the medium of print and literacy have increasingly divided the "haves" from the "have nots." Burton Bledstein (1976: 13) quoted a 19th

century aphorism: "A man is his word or the words others use about him." It is the power to define the details of other peoples' lives in words that makes the spector of computerized records irresistible, and a lack of knowledge about them so terrifying.

The stigmatizing effects of being labeled a welfare recipient, a criminal, mentally ill, or a host of other deviant social categories is well known and documented (Schur 1980; Rubington and Weinberg, 1973). What is lesser known and understood is the role records play in the stigmatizing process, since it is assumed that the records of helping institutions are protected in most cases by the rule of confidentiality. Still, professionals read records, courts often subpoena them, and everyone knows they exist. Having been labeled, in writing, by either a welfare agency, hospital, or prison means more than being involved in a process whereby an individual is labelled as deviant and stigmatized. Futhermore, written records insure that this process is inescapable. Records are meant to survive the life of the individual. Computerized record keeping systems simply make that process more efficient, easier, and often more thoroughly devastating. Scoial workers are told that manual record keeping systems must be replaced in order to improve the efficiency of service organizations, but with these systems a client was protected from both government harrassment or a dedicated, resourceful personal enemy by the inefficiency and cumbersome nature of the files. This is not an argument against efficiency or the inevitability of progress, but simply an appeal to those professionals who write the records to consider their possible implications. The power of the written word, combined with advances of computer technology, present real ethical and practical dilemmas for all professionals, including social workers.

Confidentiality and Computers

The mere existence of confidentiality statutes, professional ehtics, or legal guarantees does not insure the confidentiality of recorded information (Handler and Rosenheim, 1966; Handler, 1979). Banks are losing millions of dollars each year to highly skilled computer technicians who are capable of breaking into computerized security systems and moving money at will into phoney accounts. It has been suggested that even the national security is being threatened by mischievous teenagers, who are able to decipher the computer codes of the most sophisticated defense systems. Of course, the public is also told that advances in

computer security technology will eventually defeat even the most creative criminals. Somehow, I am not reassured. And certainly I do not believe that the computerized precautions taken to protect money and national security will be applied to the confidential information of welfare clients, food stamp recipients, or other service seekers.

Some would argue that clients forfeit their right to privacy when they sign the application for assistance and are informed as to who might be made aware of their condition. But even with informed consent, has not the stigmatizing process begun? Do individuals seeking vital services have the option to refuse to release information if it is deemed important to the application process? Lipsky (1980: 57) writes of the consent to give or release personal information:

> For the most part, except in the more coercive bureaucracies, clients give their consent because (sometimes in combination) they accept the legitimacy of the street-level bureaucrats' position and decision, anticipate that dissent would not be productive, or consider themselves favored by the decision or action taken. Most encounters with bureaucracy appear to be characterized by the consent of clients, but the structure of choices available to clients limits the range of alternative behaviors that they consider realistically available. In short, client's consent is continuously being managed by public agencies.

Lipsky is referring not only to social workers as "street level bureaucrats" but also teachers, police, hospital administrators, and public housing officials, anyone who collects personal client information as a requisite condition to being admitted to treatment.

How much real consent is there on the part of a client and how much bureaucratic coercion? Even with the routine assurances and guarantees of confidentiality, will computerized data banks give welfare clients confidence that their privacy will not be violated? Wheeler pointed out ten years ago that record systems have a "memory tracing function" and that the identities established by records follow an individual wherever he or she may go. Expunging or sealing a record, or even maintaining its confidential nature was impossible then and even more difficult now, with interlocking communication networks and computers that "talk to each other." Records bestow identities and seldom take them away (Wheeler, 1969). Computerized identities will be even harder to lose.

Some may ask, "So what?" The type of information needed by bureaucrats is so general that the intimate details of a person's life are never requested. Surely, name, age, social security number, income, occupation, members of your family, work history, etc., are not all that incriminating! Besides the public has a right to know who is receiving what benefits and how their tax money is being spent. This is precisely the justification given for collecting information about those who apply for public assistance. With computer technology there seems to be no limit to the amount of information that can be acquired. In 1974, Richard Nixon resigned after it was learned, among other things, that he used I.R.S. and F.B.I. files to harass individuals. Do welfare recipients have anything to fear?

Social Work and New Technology

Gyarfas (1969) warned that social work was becoming increasingly indebted to social science and technology, and that as a result she felt the profession was becoming impoverished in terms of its commitment to individual need, self determination, and the relevance of subjective aspects of behavior. Although she did not mention the introduction of computers into social work organization and practice, she was aware of a subtle change taking place in the traditional values of social workers that she could sense was related to the influence of science and technology. It was a change in attitude, a shift from a concern for the individual toward the "social control" of persons. The need for proper socialization of the poor seemed to outweigh the right to self determination. She identified short-term treatment as a "cliche" to justify a "social bandaid" approach to those suffering from chronic stress (Holbrook, 1983b). She also forecast funds being tied to short-term treatment modalities and the number of cients seen by both public and private agencies. What she could not foresee was how the computer was going to be utilized to implement those objectives.

She (Gyarfas, 1969: 271) did predict that: "The new orientation leads inevitably toward social work's becoming a managerial discipline that of necessity must become increasingly concerned with the control, organization and programming of social systems." When cuts in social programs require social work managers to demand more productivity to compete for dwindling resources, her prediction becomes ominous. Service, measured by the number of contacts and computed to the minute,

becomes the standard by which to evaluate an agency's effectiveness, and computer technology provides the means for this undertaking. More important are the choices social workers must make when confronted with computerized documentation systems that mean both survival for their agency and service to the client.

John Johnson, in a qualitative study of a child welfare agency, observed the effect of computerized record-keeping upon worker behavior. He found in studying the implementation of a new computerized system of recording, which was more "streamlined" than the previous narrative method, that child welfare workers adapted the new computer format to their own needs. They first translated the meaning of the encoded "boxes" into everyday prose and reported what they thought their superiors wanted and could understand. Johnson observed that the computerized system with its checklist of social characteristics and service codes constituted an orderly state of affairs, when in fact the worker's day was very disordered, chaotic, and dependent upon factors that could not be reported, e.g., other worker absences, personal and client related crises, unforeseen bureaucratic tasks. Many of the workers then felt justified in "fudging" their statistics in order to reflect what they thought they would have done if no emergencies had occurred. They also knew that these statistics would be used to create or abolish jobs and evaluate their performance. Hence, they devised strategies to inflate their statistics.

Of the workers questioned regarding these practices, each had their own rationale based on their subjective experience of their work load, their impressions regarding the work loads of others, and the need to satisfy both the computer and their superiors. The resulting service and statistical reports were seen by Johnson (1973: 248-359) to be reflecting the situational contingencies of the work setting and personal dispositions of the workers rather than objective reality.

At least the old longhand narrative reports provided a context for the reader to understand the intent and aim of the writer , which would seem to suggest the possibility of less human error and misunderstanding, but more time consuming effort. In the name of computer "streamlining" the human context is felt to be unnecessary and possibly unscientific compared to the staccato-like speed and unambiguous grammar of the computer. But computers save time and money and appeal to those rational, forward-looking human service managers who are trying to

solve the conflict between too many needs for too few resources (Dery, 1981). Ironically, social workers on the front line are finding themselves co-opted by the same technology that promises to help them, as they provide the information to be processed.

As has been shown, computer information is no more reliable than the humans who make the decisions and operate the machines, but the imposition of new technology seems to have given new value to computerized information. Computers reinforce the perception of reality shared by those on the front line and at the top of social service organizations. Imbued with the naive faith of millions of Americans in the accuracy of records, the inevitability of progress, and the inherent benefits of technology, there seems to be little opposition.

Perhaps, too, it is also the computer's promise of relief from the mounds of paper work that have become so much a part of every organization. Social workers have always complained about the amount of paper work associated with their jobs. Numerous time studies have shown that caseworkers spend more time with paper than clients. With the steadily increasing amount of federal, state, and local involvement in the delivery of human services, this trend is likely to continue with the computer touted as the only way out. But is it? Or is it another attempt to justify a reality of power politics under a guise of cost controls and concern for efficiency.

With 4.2 million people on Supplemental Security Income, 22.2 million on Food Stamps, 3.5 million families on Aid to Dependent Children, and 30.5 million persons on Social Security, the problem of records and record-keeping is far from small. While the average citizen may have nothing to fear from a computerized welfare bureaucracy, history has shown that if the technology is available it will be put to "good" use. The question of what use is "good" however, remains to be answered adequately.

Weizenbaum (1976: 31) speculated that had computer technology not been developed, the organization of welfare services would have been much more decentralized, humane, and responsive. Of course, others would argue that those services would also be less efficient, slower, and more error prone. But this raises the serious issue of whether or not technology is directing and shaping society or vice versa.

Technology aside for the moment, social work historian, Roy Lubove (1975: 57), commented that the theory and practice of social work has been shaped as much by administrative exigencies as professional skill. If this is true, then the combination of "administrative exigencies" and bureaucratic values, together with computer hardware, would seem to present a formidable challenge to social workers concerned with highly centralized, dehumanized, and politicized social services.

Management Information Systems or Computers Turned Inward

Although the uses of computerized records by agency personnel are varied, they can be divided generally into management information functions and client information functions. While I have expressed some concerns regarding client functions, it is management information systems that are likely to be on-station first and present social workers with their most immediate problems, as Johnson's study attests. Since historically administrative needs have done much to shape the theory and practice of social work, it is not too far-fetched to speculate that with scarce resources agency administrators will need to rely increasingly on the quantification of service and program evaluation to justify a program's funding. Nonetheless, the quantification of service results in dysfunctional consequences for service organizations, and with the availability of computer technology the desire for "hard data" will be much greater, if not impossible to resist.

For years, managers have known that attempts to evaluate and measure a worker's performance result in behavior that may reflect positively on the control or measurement systems, but is dysfunctional for organizational goals as a whole, especially if records are used as a measure of performance (Blau, 1956; Gouldner, 1954; Campbell, 1971). Johnson has described how the workers in one agency acted to mitigate and counter the impact of computerized counting. Undoubtedly, there will be other qualitative studies documenting similar phenomena. But the fact remains that "official statistics" are often problematic (Kitsuse and Cicoutel, 1963; Douglas, 1971: 79-133). The current fascination for numerical data, made simple by computerization, poses an ethical dilemma for those workers on the front line, not to mention problems for social policy based on these numbers. With the administrative mandate to quantify service via the computer, can social workers continue to resist efforts to reduce what it is they do regardless of the complex nature of their tasks? Lipsky (1980: 172) addresses

this point as follows:

> Productivity-service quantity and quality/cost. Two of the determinants of productivity, service quantity and cost, are easy to measure; the third, service quality, is virtually impossible to measure. Managers under pressure to improve productivity are likely to try to cut personnel or obtain more work from existing personnel because these are the terms of the equation for which measures are available and which managers can manipulate. Staffs are reduced to bare bones without a reduction in responsibilities. Thus staffs are asked to do more without increases in personnel.

As social workers are asked to do more with less, an inescapable paradox, improved management and increased technology are thought to be the only solutions. The present fiscal crisis is thereby transformed into a shell game, with computer numbers pointing toward ways of reducing expenditures while minimizing the impact of budget cuts. Truly, this is a no-win situation for social workers and clients alike.

As Lubove suggests, social work theory has also followed "administrative exigency" by adopting systems language to explain social problems, while task centered casework, crisis intervention, and short-term service contracts adapt to the computer with its limitless capacity to count. Stanley (1978: 136-177) has referred to this reductionistic, cybernetic mentality as "subjugation by metaphor." Those who do not speak the language of computers and system analysis will be viewed increasingly as backward, irrational, or at best resistant to change. Finally, bureaucracy and the computer make excellent partners, as they are both impersonal and capable of handling large amounts of information. Their potential appears to be limited only by the manager's imagination.

Unfortunately, just as social workers must manipulate the numbers, so must the managers, in a spiraling escalation of what Lipsky (1980: 131) called "auspicious shadings of the truth" or "sincere rationalization." Computer technology, increased supervision, and more regulations are surely not the answer to the problems facing social service programs. Social work, good or bad, is a qualitatively performed task and, by definition, requires a high degree of personal discretion, judgment, and initiative, all of which cannot be quantified. Despite

psychologists' attempts to reduce, scale, rate, and index the components of human judgment, this has not been done and continued efforts in that direction seem to me to be questionable. Again, as Lipsky (1980: 168) observes:

> The more discretion is a part of the bureaucratic role, the less one can infer that quantitative indicators bear a relationship to service quality.

The danger to social workers and their clients in allowing the quality/quantity distinction to go unchallenged, in both the literature and on the job, has already been illustrated nonetheless, as managers continue to equate numbers with service, staff members will be reduced proportionately, thus imperiling the quality of the services that are delivered.

The Computer and Social Policy

Bogdan and Ksander suggest that social policy makers might benefit from studying the methods used for counting and measuring service and program outcomes, rather than accepting at face value the findings of program evaluators or quantitative researchers.

> What is clear is that in order to understand data on incidence, prevalence and rates of success used by those who generated them has to be understood over time and in the context of that particular moment in history of which they are a part (Bogdan and Ksander, 1980: 304).

They cite numerous studies that have observed the quantification found in Head Start programs, vocational and welfare programs, public schools, and industry, and conclude that the numbers generated may have more to do with the social processes, conventions, and mandates to count than with empirical reality, although numbers, i.e., statistics, are still regarded as the "hardest" of data. Still, someone must decide how to define suicide, crime, mental illness, or child abuse. Human judgment cannot simply be factored out by the use of the computer, for the result is data that have no social significance. This is not to deny that phenomena are categorized everyday by persons, but that the power of quantification to alter and change the meaning of things must be recognized. Qualitative researchers have observed for some time that the ways individuals define

and measure service outcomes, inevitably influence the results of program evaluation studies. Until recently, however, there seems to have been very little understanding on the part of social work researchers as to the effect of the quantitative research model upon the research process. Karger (1983)in a recent article in Social Work, has begun to raise these important issues and challenge the methods and kinds of evidence allowed as "scientific" within the profession. Social policy, guided by computer print-out, can only further confound the problem, unless the difficult question pertaining to quality service is addressed.

Computer Programming and People Processing

Despite the claims that computers are now "user friendly", they may have some unforeseen negative effects. Weizenbaum was alarmed when psychotherapists began advocating for the use of computers to conduct non-directive therapy. In fact, he was sufficiently concerned to devote an entire book to helping people understand how a computer works and the problems which he felt it could be used to solve. He also made a very eloquent statement as to the computer's limitations and why computers should not be used on moral grounds to provide "psychotherapy" (Weizenbaum, 1976: 1-16). Unfortunately, I feel that his warning, as Orwell's 1984, will come and go with people reassuring themselves that there is nothing to fear. Perhaps that is so. But, at the very least, it seems that the unquestioning acceptance of computer technology by service organizations can only contribute to the image of helping professionals as "people processors." For years, vital welfare, housing and job programs have been characterized in the media, professional literature, and the popular press as more concerned with bureaucratic procedures than with meeting people's needs (Prottas, 1979; Galper, 1975; Blau, 1960). Computers, while enhancing service organizations' public image as efficient and cost effective, also project the idea that hardware has taken the place of concerned agency personnel. More important than public image, however, is the impact of the computer upon worker performance. If social workers are evaluated on the numbers of clients they are able to see in one day, it is not difficult to imagine bureaucrats forever "streamlining" procedures to enable more people to be processed in less time, limited only by the manager's imagination and the computer. Of course, this is an exaggeration, but people processing in human service organizations is not uncommon, and advances in technology may only encourage this approach to treating clients.

In 1971, John Noble (1971: 41) made this prediction:

> Between now and 1984, the year of Orwell's apocalyptic vision on "Big Brother", there is a strong likelihood that social work and health professionals will join with their clients in major campaigns against the infringements of privacy occasioned by the rapid all pervasive growth of computer and communications technology.

As yet, however, no protests have been witnessed. Perhaps this is because computerization is viewed by both social workes and clients as inevitable, the price of progress, and nothing to worry about. As yet, however, no protests have been witnessed. Perhaps this is because computerization is viewed by both social workers and clients as inevitable, the price of progress, and nothing to worry about. Nonetheless, sometime in the future, the difficult issues related to "quality" social work will have to be addressed by the profession. It is my opinion that computer technology will hasten that day. If this prediciton is accurate, then computers will have served a purpose beyond the technological capacity to count and categorize, and people issues will again take precedence over technical ones.

Conclusion

The fear that computer technology will intrude into the private lives of individuals is not new, nor is the fear of violations of client confidentiality. The advocates of this technology, however, decry those concerns as reactionary, or at best minimize them by emphasizing the improvements in record keeping efficiency and accuracy that are possible. Historically, dependent populations, such as welfare recipients, have the most to fear from computer technology but are the least aware of their rights regarding public records. Social practitioners must acknowledge to each other and the people whom they serve the reliability problems that exist in the present manual methods of record keeping, in order to address the dangers of computerized systems.

Elsewhere I have described the unsubstantiated and sometimes erroneous information contained in case records. I have also examined the taken for granted beliefs of both professionals and the public alike regarding the objectivity of case records. Because social facts are

inherently problematic, the result of both subjective and objective factors which influence what a social worker considers to be factual, case records should not be viewed uncritically. The promise of computer technology, combined with cultural and bureaucratic support for "hard" data, simply obscures the problems associated with constructing an accurate case record. Additionally, computer technology is touted as a panacea for fulfilling the current demand by human service managers for "hard" data. Seldom is it recognized how soft "hard" data really are, yet this becomes particularly important when bureaucratic data are used to formulate social policies. The use of computer technology in the human services is inevitable. However, the real choice for the profession of social work lies in whether or not the issues related to quality record keeping will be addressed or obscured altogether by computer technology.

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