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Computer Use in Social Services Network

Vol 11 No. 1 & 2
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Networking: The Linking of People, Resources and Ideas

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Double Issue: The HUSITA-2 Presentations

About the Network

Computer Use in Social Services Network (CUSSN) is a nonprofit association of professionals interested in exchanging information and experiences on using computers in the human services.

Network Dues: $15 individuals, $25 institutions (payable in U.S. Funds). Contact Dick Schoech, Associate Professor, School of Social Work, The University of Texas at Arlington, Box 19129, Arlington, TX 76019.

The Newsletter is published approximately 4 times a year and is sent free to all network members. A single issue is approximately 20 pages, a double issue is approximately 40 pages. Back issues are $5 each.

The Disk Copy Service makes human services demos and shareware available to members for a small processing fee. Write for free listing of software and see inside this newsletter for newest disks.

The Electronic Network (CUSSNet) establishes local bulletin boards, national and local mail and file transfer, downloading of public domain software, and access to several databases on human service computing. CUSSNet builds on FIDONET, about 10,000 microcomputer–based local bulletin boards across the U.S. and in 9 continents. See inside for a list of CUSSNet nodes. Communications are at 300–2400 baud, 8 data bits, 1 stop bit and no parity. Almost any computer or terminal and modem will work. Usually no fee is required.

CUSSN Disk Copy Service

Definitions of software codes:

[D] = **Demo**—Software that highlights a product and/or gives you the feeling of how the actual product operates.
[F] = **Freeware**—Full working version; no restrictions on use.
[L] = **Limited Use Version**—Lets you examine the product, but limitations prevent continued use.
[U] = **User Supported Shareware**—Full working copy to examine; you are expected to register and pay the vendor if you use it.
PC = Will run on the IBM personal computer and compatibles.
{HD} = Requires a hard disk.
{C} = Requires a color graphics card
$ = Vendor allows you to deduct the payment to CUSSN for disks from your purchase price.
Note: Disks are direct from the vendor and copied with vendor permission. Thus, disks are free of computer viruses.
All disks are guaranteed to work. However, disks may get damaged in the mail. If you have a problem, do a PrtSc of the problem and return it with your disk for a new copy.

New Disks Since the Last Issue

ASH+ (1 disk) Demo of Automated Social History [D] PC
Demo of a program that administers a 401 item force choice format questionnaire to clients covering 13 areas including religion, family, education, employment, addictions, family, interests, criminal and medical histories.

RAVE (2 disks) Demos program to identify appropriate occupations $[D] PC {HD}
Demo of RAVE (Realistic Assessment of Vocational Experiences) which finds occupational alternatives keeping the entire directory of occupational titles (DOT) in mind.

WorkNet (4 disks) Demos job development program $[D] PC {hd}
Demo of WorkNet, a program for rehabilitation and job development counselors that organizes information about employers and jobs and retrieves this information in useful reports.

Sisyphus (1 disk) Demos program to help clinicians with paperwork [D] PC {HD}
Demos program to help clinicians fill out assessments, evaluations, mental status exams, treatment plans & reviews, termination summaries, progress notes, insurance forms, etc. For example, it writes a treatment goal, method, session frequency and client disabiltiy from entered diagnosis.

Selected Disks described in previous issues—write for complete listing

Accounting and billing

Clinic Accounts Receivable (1 disk) Demo of 3rd party billing, sliding-fee program [D] PC
Fixed Asset Manager (2 disks) Shareware fixed asset management system [U] PC {HD}
Fund Accountant (2 disks) Shareware fund accounting system [U] PC {HD}
Nonprofit General Ledger (1 disk) Shareware nonprofit general ledger [U] PC
Painless Accounting (3 disks) Shareware office accounting and billing system [U] PC {HD}
PCFUND (1 disk) Demo of complete fund accounting system from American Fundware $[D] PC

Disabilities

CAPTAIN'S LOG (2 disks) Demos a cognitive rehabilitation system [D]{C} PC
Freedom Writer (1 disk) Demo of input program for persons with limited mobility [D] PC
Newkey (1 disk) Shareware key redefinition keyboard enhancer [U] PC
Sign Friends (1 disk) Shareware Sign Language trainer [U] PC
WPK (1 disk) Shareware easy-to-use large type font Word Processor [U] PC

Education/training

ANGER-ADVOCACY (1 disk) Training courses on Responding to Anger & Legislative Advocacy [F] PC
BASIC Professor (1 disk) Shareware interactive tutorial on the language BASIC [U] PC
Black Magic (3 disks) Shareware version of hypertext software [U] PC
DOS Learning System (1 disk) Shareware DOS tutorial [U] PC
Empirical Practice (3 disk) Materials for a course on empirical practice [F] PC
Lotus Learning System (2 disks) Shareware tutorial on Lotus 1 2 3 [U] PC
MEL (2 disks) Demo of Micro Experimental Laboratory system [D] PC {C}
MRDOS (1 disk) Shareware introduction to the PC and DOS [U] PC
PC-CAI (1 disk) Shareware system to develop computer aided instructions [U] PC
PC-PASS (1 disk) Demo of authoring system with two social policy examples [D] PC
PC-Pathway (1 disk) Demo of a career selection tool $[D] PC

SIMCON (1 disk) Shareware policy simulation [U] PC
SWBIB (2 disks) Annotated bibliography on computers in social work [F] PC
TUTOR.COM (1 disk)(Ver 4.4) A general tutorial on the PC and DOS [U] PC
Understanding Statistics (1 disk) A statistical tutorial $[D] {C} PC
Word Perfect Learning System (2 disks) Shareware tutorial on Word Perfect [U] PC

Health and Mental Health

ACHI (1 disk) Assessment of Chemical Health Inventory Demo [D] PC
Agency Simulation (1 disk) Agency simulation source code & reports for a Dec 10 computer [F] PC
AMIS (1 disk) Demo of a hospital social work/discharge planning system [D] PC
ARES (1 disk) Demo of an At-Risk Evaluation System [D] PC
CASS (4 disks) Computer Assisted Social Services (CASS) system [L] {HD} PC
DALE (1 disk) Demo of a drug abuse education system [D] PC
Decisionbase (3 disks) Fully functional sampler of integrated mental health software [D] {HD} PC
DIS (1 disk) Demo of client self-administered Diagnostic Interview Schedule generating DSM III info. [D] PC
DSMIIIR Trainer (1 disk) Program teaches the DSMIIIR [F] PC
Hamilton Depression Assessment (1 disk) Automates a depression scale [F] PC
Help-Software (1 disk) Demo of self-help software for assertiveness, self-esteem and stress [D] PC
I-View Skills Demo of software to teach interviewing skills [D] PC
MedSWIS (2 disks) Demo of a hospital social work information system [D] PC
MHC-BIB (1 disk) Annotated bibliography (581 entries) on Mental Health Computing [F] PC {HD}
PsyMed (2 disks) Provides an easy to use guide to psychotropic medications [U] PC
PSYSEARCH (1 disk) Demo of a psychiatric diagnostic aide using a DSM-III-R type decision tree [D] PC
The Psychiatric Assistant (2 disks) Demo of a system to assist clinicians [D] PC

Management

Community Services Locator (1 disk) Demo of an information and referral system [D] PC
Day Care Manager (3 disks) Shareware for managing a day care program [U] PC {HD}
Donor Network (2 disks) Shareware donation and pledge tracking system [U] PC {HD}
HSIS (1 disk) Demo of customizable client information system [D] PC
Information Please (1 disk) Shareware quick access database [U] PC
Micro-Psych (1 disk) Demo of office management system for individual/group practices [D] PC
MIS Manager (2 disks) Shareware computer inventory tracking system [U] PC {HD}
Performance Mentor [1 disk] Demo that helps improve employees $[D] [PC]
Personnel Policy Expert [1 disk] Demo that generates an employee handbook from user questions $[D] [PC]
R/Client (2 disks) Demo of a client management and reporting system [D] PC
Schedule & GANTT (1 disk) Shareware and demo for project management [L&F] PC
The Servant (5 disks) dBase III+ system for church/Sunday school members/activities [U] PC {HD}
Volunteer Network (3 disks) Shareware for tracking and scheduling volunteers [U] PC {HD}

Miscellaneous

Child Abuse (1 disk) Demo of how an intake prioritization expert system might work [F] PC
Child Protection System (1 disk) Demo of a child protective services system [D] PC
KWIKSTAT (2 disks) Shareware statistical package, Ver 2.0 [U] PC {C}
Simple STATS (3 disks) 62 simple statistics programs [F] PC
TNCinfo (2 disks) Texas Networks for Children Electronic Information System [U] PC

Demo/shareware/freeware disk order form

To order, circle the disks requested. Enclose $5 per disk ($6 for non-members and overseas mail) to cover mailing and handling. On orders of over 10 disks, deduct $1 per disk. Disks may be accompanied by vendor advertisements, order forms, etc. Proceeds from disk sales go towards furthering the CUSSN activities. Order from D. Schoech, CUSSN, UTA, Box 19129 GSSW, Arlington, TX 76019-0129. Make checks payable to CUSSN. UTA's Federal Taxpayor ID number is 75-6000121W.

Number of software products = _____; **Number of computer disks =** _____
Enclosed: (U.S. dollars only) # of disks X $5 (members) or $6 (non-members) per disk (minus $1 per disk for orders of 10+ disks) _____
Name: _____
Mailing Address: _____
City: _____ **State:** _____ **Postal Code:** _____ **Country:** _____

CUSSNet—CUSSN's Electronic Network

Overview

The electronic component of the Computer Use in Social Services Network (CUSSNet) establishes local bulletin boards, local and international mail and file transfer, conferencing, and repositories of electronically available information. CUSSNet builds on a 6000+ local bulletin boards (FIDO, OPUS, etc.) around the world which automatically exchange information. Usually no fees are charged except for long distance mail.

If a BBS carrying the CUSSNet conference (echo) exists in your city, dial it up and follow the directions. Before calling long distance to a node, you may want to learn to use a BBS by calling a free local node. To locate a local FIDO or OPUS BBS, ask your local microcomputer dealer. You can use a local node to send mail and pick up whatever CUSSNet information your local BBS operator will get for you. Communications are at 300- 2400 baud, 8 data bits, 1 stop bit and no parity. Almost any computer or terminal and modem will work.

Sample **message areas** are: Local and international public/private mail, conferences on human services, health, psychiatry, addictions, disabilities, AIDS, veterans, violence, etc. A message in the CUSSNet conference goes to all the boards listed below

Nodes Carrying the CUSSNet Conference: (accuracy is impossible with this list)

Net/Node	BBS Name	City & State	Sysop	Phone
10/300	Bruce's_Board	Barstow,CA	B. Hartsell	619-252-5150
11/301	Fido-Racer	Murray,KY	B.Allbritten	502-762-3140
104/52	Nurse_Link	Denver,CO		303-270-4936
104/62	Mojave_Net	Westminster_CO		303-426-0623
105/10	Atarian_BBS	Portland, OR	M. Attaran	503-245-9730
106/5433	TreeShare Genealogical BBS	Houston, TX		713-342-1174
109/507	Hd._Start_RC	College Park,MD	D.Mohney	301-985-7936
114/15	St_Joes_Hospital	Phoenix, AZ	D.Dodell	602-235-9653
124/2121	Psychology Forum BBS	Dallas TX		214-368-5474
129/75	Ecclesia_Place	Monroeville,PA	L.Pascazi	412-373-8612
130/10	DD_Connection	Arlington,TX	J. Redden	817-261-6309
132/111	On_Line_NH	Concord,NH	D.Hall	603-225-7161
134/202	Welcome to my nightmare	Sylvan Lake, AB,Canada	D. Esler	403-887-4514
138/115	Amocat BBS	Tacoma WA	R Langsford	206-566-1155
138/116	Group Medical BBS	Tacoma, WA	I Arslangiray	206-582-3212
141/420	The Handicap News	Shelton, CT	B. McGarry	203-337-1607
150/101	Black_Bag_BBS	Newark,DE	E.DelGrosso	302-731-1998
157/3	Nerd's Nook	Rocky River, OH	B. Walker	216-356-1431
202/606	Hillcrest BBS	San Diego, CA	M Blair	619-291-0544
203/11	The Broken Rose	Sacramento, CA		916-483-8624
203/454	Sacramento Peach Child	Sacramento, CA		916-451-0225
205/80	TOTT BBS	Fresno CA		209-292-6403
208/200	Software Silo	Stocton CA		209-477-9502
265/102	Connect! BBS	Dale City, VA		703-670-5037
266/12	Maple_shade_Opus	Maple Shade, NJ	B Eller	609-482-8604
267/41	The_HOST_BBS	Glens Falls,NY	R.Calloway	518-793-9574
275/429	HandiNet BBS	Virginia Beach VA	W. King	804-496-3320
300/7	First_Dibs	Tucson AZ		602-881-8720
305/101	NASW_New_Mexico	Las_Cruces, NM	Drew Spray	505-646-2868
321/109	Pioneer_Val_PCUG1	Amherst, MA	M.Sternheim	413-256-1037
321/203	VETLink#1	Pittsfield, MA	Gj.Peck	413-443-6313
343/35	HDS_Univ_of_Wash	Seattle, WA	C. Ritchie	202-543-3719
381/5	Micro Applications	El Paso, TX	D. Gladden	915-591-1090
382/1	Capitol City	Lake Travis,TX	M.Masterson	512-335-7949
382/5	Health-Link	Austin,TX	B.Baskett	512-444-9908
387/404	ACS_People_Connection	San Antonio,TX	B.Armstrong	512-647-8189
254/11	PolyNet	London,UK	E.McCabe	441-580-1690
2:253/151	TOPPSI	Dublin Ireland	David Doyle	353-1-7110
2:253/152	UK_Healthlink	Wigan,UK	D.McKendrick	44-942-722984
2:256/97	LogOn-In-Tynedale	Hexham, UK	J. Rawson	44-434606639
2:283/105	Datawerken_IT	Remmerden, Holland	M.Mazeland	318376-15363
2:331/201	Amigaline	Bologna, Italy		31-1810-15600
2:512/120	STEBIS	Leiden, Holland	M. Gobes	31-71-320002
2:7105/10	Waco Host	Utrecht, Holland		31-3438-21410
3:634/388	Axiom BBS	Melbourne, Australia	A.Rajcher	61-3-509-4417

Introduction

This issue of CUSSN contains all accepted juried abstracts accepted for the HUSITA–2 conference as of 1 May 1990. As you can see from the conference schedule below, the juried presentations are only one of several major activities occurring at the HUSITA–2 conference.

HUSITA–2 will be a major event in human service computing. All are encouraged to attend. A lot of effort has been spent to make HUSITA–2 an affordable international event. For example, a solidarity fund has been developed for human service computing professional from developing countries. For additional information on HUSITA–2 and registration details, contact:

Marcos Leiderman, Chair and Professor
Rutgers, The State University of New Jersey
School of Social Work
536 George Street, Room 206
New Brunswick, NJ 08903
908/932–7935
FAX: 908/932–8181
BITNET: 2275027@RUTVM1

Organizational and Technical

Administration and Management

Innovative Use of Computers for Planning in Human Service Organizations

A. D. Matheson, PhD, School of Social Work, Laurentian University, Ramsey Lake Road, Sudbury, Ontario, Canada P3E 2C6

This paper deals with the question of why some human service organizations are more innovative in their use of computers than others, particularly in the area of strategic planning.

In the extensive literature on organizational change and innovation, it is apparent that competing theoretical paradigms exist. The "rational" approach views change as the result of a common desire for organizational efficiency, while the "natural–systems" perspective seeks explanation in the informal organizational environment. Although both theoretical traditions have been confirmed empirically, the findings are equivocal and often contradictory.

Conference Overview

Pre-Conference Professional Development Program
Sunday, June 23 to Tuesday, June 25, 1991

WEDNESDAY JUNE 26	7:30AM - 6:30PM On-Site Registration at Exhibit Hall			SUNDAY June 30
	THURSDAY JUNE 27	FRIDAY June 28	SATURDAY June 29	
Sixth Annual NYC Computers For Social Change Conference 9:00 AM - 5:00PM Hunter College New York City	Opening of Exhibit Booths Hyatt Regency 8:00AM - 4:00PM	HUSITA-2 International Conference Hyatt Regency	HUSITA-2 International Conference Hyatt Regency	HUSITA-2 5Km Fun Run 7:00AM - 8:00AM
Opening Session Ninth Annual National Nursing Computer Conference Hyatt Regency New Brunswick, New Jersey 12:00pm - 8:00PM	Ninth Annual National Nursing Computer Conference 8:00AM - 4:00PM	Special Interests Groups (SIGs) Breakfast Meetings 8:00AM - 10:00AM	SIG Breakfast Meetings 8:00AM -10:00AM	Brunch Closing Plenary 9:00AM -11:00AM Keynote Speakers: - Evelina A. Pangalan, *University of Philippines* - Bryan Glastonbury *South Hampton University, U.K.*
6:00PM - ? NYC Food, drink and surprise speaker THE WETLANDS PRESERVE, NYC "the activists' watering hole"	HUSITA-2 Learning Institutes 9:00AM - 4:00 PM	Exhibit Booths 8:00AM - 4:00PM - Juried Presentations - Invitational Speakers 10:30AM -5:30PM	Exhibit Booths 8:00AM -12:00PM - Juried Presentations - Invitational Speakers 10:30AM -5:30PM	Thanks to Participants and Committees
	HUSITA-2 Int'l Conference Opening Cash Bar 5:00PM Banquet 6:00PM Keynote Speaker Dr. Arno A. Penzias 7:30PM -10:00PM	ENITH & AACTHS Meetings	Recognition of Honorees and Testimonials 5:30PM -7:00PM	Planning for HUSITA-3 Conference 1:00PM - 3:00PM
		International Social Event 7:00PM - 9:00 PM		

A study using commonly reported variables in the rational and natural–systems traditions tested alternative hypotheses to account for technological innovation in human service organizations. Preliminary data seemed to support the rational explanation, but further analysis proved variables in the natural–systems tradition to be more critical to differential use of the technology for planning purposes. Organizational uncertainty, competition for access to resources, and internal receptiveness to change seem to have been more relevant to the timing or priority of computer use for planning than clarity and consensus regarding organizational goals, principles of efficiency, or access to information, expertise, and financial resources. Most basic were environmental uncertainty and the presence of innovative individuals.

The presentation concludes with an analysis of managerial styles and planning patterns in the agencies studied, especially with respect to shifts that have occurred in those more advanced in their use of computers for planning.

An Instructional Model For Social Work Educators Engaged in Developing Computerized Management Information Systems in Academic Institutions

Diane Metzendorf, D.S.W., Assistant Professor, West Chester University Department of Social Work, McCoy Center, South Campus, West Chester, PA 19383

Dean Oreice Lesley, MSW, Director of Admissions; Sandra Bauman, MSW, Director of Field Placement; and Janet Heulman, Administrative Assistant, U. of Pennsylvania, School of Social Work, 3701 Locust Walk, Philadelphia, PA 19104

This panel presentation reports on the experience of administrative faculty at the University of Pennsylvania School of Social Work in designing and implementing a management information system which integrates recruitment, admissions and field placement information. This process began in 1988 with a needs assessment administered to the administrative faculty responsible for recruitment, admissions and field placement of prospective MSW students. Identified needs included in the system design were:

- a central system of tracking students through the recruitment, admissions and field placement process;
- a tickler system for documents needed by and received from prospective students;
- a matching system of students with available field placements; and
- generation of demographics and statistics.

The panel will present the trials and tribulations of how these needs were translated into functioning databases by administrative faculty, initially resistive to computer technology, with the help of the consultant, then a social work doctoral student. A step by step process of how administrative faculty participated in changing their informal methods of strong data to a systematic process through computer usage is illustrated.

Each database constituting the integrated management information system will be discussed in depth. The recruitment database keeps track of each inquiry to the School as well as the continued efforts by the School to turn inquiries into applicants. The admissions database contains prospective and entering students. The field placement database contains relevant information about all field placements available to the School assisting the field placement director in matching students with field placements.

A progressive report on how both the management information system and administrative faculty have grown in sophistication closes this panel presentation.

A Model for "In–House" Software Customization (Child Welfare)

Casey Pieterson, Supervisor, Planning, Evaluation & Information, The Children's Aid Society of the Region of Peel, 10 Peel Centre Drive, Brampton, Ontario, L6T 4B9, Canada, FAX: (416) 791–6949

Amy Cousineau, Manager, Information & Research, Family & Children's Services of the Regional, Municipality of Waterloo, 355 Charles Street, Kitchener, Ontario N26 2P8 Canada FAX: (519) 570–0160

In–house software development represents an important initiative for human service agencies who frequently are forced to accept off–the–shelf software that does not fit the unique needs of their agency. While there has been a reticence among humans service agencies to develop in–house software because of costs and complexities, it nevertheless can be accomplished effectively.

This paper will present the experiences of two Ontario Child Welfare agencies who successfully developed and customized a software application program. A unique Court Information System was designed to store case related information and assist with management of Child Welfare Court proceedings. The system schedules, tracks, manages and maintains a record of every child welfare case that is brought before the court. Various reports, letters to lawyers and statistics related to Court activity are generated by the system.

The presentation will examine a variety of questions and issues related to social work "driven" software development including systems design, the need for end user involvement, definition of terms, inter–agency and private sector collaboration, funding, project management and the use of consultants.

Barriers and strategies for successful design, development and implementation of software systems in human service settings will also be explored and alternative solutions and recommendations offered. Finally, key features of the actual Court Information System software program will be demonstrated using an overhead projection system.

This paper will be of interest to managers, lawyers, clerical staff, and Child Welfare human service professionals.

Patterns of Information Use by Levels in Human Service Organizations

Philip H. Schervish, Ph.D., Assistant Professor, National Catholic School of Social Service, The Catholic University of America, Washington, DC 20064

This exploratory study used a mailed questionnaire to collect data on the frequency with which information about clients, services, staff, and finances are used by human

service workers in community mental health centers. Using 66 information tables, suggested by the NIMH to meet minimum information requirements for accountability and evaluation of practice and programs, 241 items of information were developed for the questionnaire.

Communication and decision theory informed observations of patterns of information use based on the frequency, type, and referents of items rank ordered for workers at each of three levels in the organization, executive, managerial and direct service. An analysis of variance was used to test the statistical significance of the observed differences among levels of workers and among workers from different academic disciplines.

Differences were found in the type and frequency of information used by workers at different levels. The information used by executives appears to be almost exclusively focused on the financial stability of the organization, lending little support to decisions related to the mission and adaptability of the organization. Observations reflect a lack of clear definition about the roles and responsibility of managers in CMHC. Observations also may reflect a gap in the education and training of practitioners moving up to the role of manager. Information use patterns of direct service workers displayed the greatest congruence between what is used and what, in theory, they need to know. However, the use of information to support an informed practice was not evident in these patterns.

Findings of no difference in information use based on academic discipline of the workers suggest an organizational based design of information systems. However, designing a system based on the preexisting or proscriptive uses of information may not serve the organization, or the user, in the most productive manner. Effectiveness of information selection and use, as well as information system design in the human services, can be improved by directing specifically used information to workers at the various levels. Efficiency can be improved by determining the specific composition of the information needed and wanted by workers at those levels. It becomes incumbent upon schools of social work to teach the decision making purposes and processes at each level of the organization. Schools must also expose students to technologies available to support practice at the direct service level and beyond. Such efforts could promote improved caseload management, organizational responsiveness to the client, and reduce worker burnout.

Organizational Development and Information Systems: A Case Study

Randolph J. Tighe, Director of Research, The Vocational and Rehabilitation Research Institute, 3304–33rd St NW, Calgary, Alberta T2L 2A6

The potential benefit of computer information systems is readily acknowledged within human service organizations. In fact, many of these organizations have made the commitment to adopt such information systems. Yet, as organizations change and the technology they have used becomes antiquated, the information system may fall into disuse.

This paper presentation will describe the experience of a human service organization which made the commitment to computerizing their client records early in the 1980's. This time period was a critical one, both from the standpoint of technological developments in personal computers and software and with respect to philosophical shifts in the way human service organizations conduct their business.

In the early 1980's, personal computer LAN applications were just being developed. Thus the technology was fairly new and few consulting companies had direct experience with these types of applications. Compounding this difficulty was the fact that the equipment itself was becoming out–of–date shortly after it was purchased.

As well, for organizations providing services to people with developmental disabilities, the 1980's was a time for a reconceptualization of how these services were provided based on the ideologies of consumer empowerment, community integration and normalization. This shift translated into new ways of making service decisions, hence new needs for information and the way it was to be utilized for such decision–making. However, as service models changed, the technical expertise (or the funds to purchase same) were not available so the computerized information system could be modified to reflect these developments.

The case study to be presented in the paper is illustrative of the preceding scenario. An interesting aspect of this particular case is that many of the 'right' steps were followed in preparation for computerization (i.e., a consulting company was hired to determine needs and to put together an implementation plan). Yet still the system failed and in fact was never used. The paper will trace the history of the system development and discuss the organization's renewed attempts to get the system back on track. For some organizations, the 90's may be a time for reaffirmation of a commitment to computer information technology and its effective and flexible use in human services.

Computer Management in a Substance Abuse Center

Judith E. Bloch, MSW, Hunter College School of Social Work, 174 Lakeside Drive S. Lawrence NY 11559

This paper will describe the use of computers to manage the Connecticut Clearinghouse, a statewide resource center on alcohol and other drug use in Plainville, Connecticut. The author served as Project Director of the Clearinghouse program of Wheeler Clinic, Inc. from 1988–1990 and initiated several different software programs to improve its service delivery. Among the programs used were Paradox 2.0, a relational database program; Scimate, bibliographic software program for libraries; PageMaker 2.0 desktop publishing program and CorelDraw graphics package as well as WordPerfect 5.1 word processing program.

These software packages were used to manage information on resources including books, videocassettes, audio cassettes, pamphlets; to develop a database for monitoring Clearinghouse client activities for evaluation and marketing purposes; to create a user mailing list; and to publish a computer–generated quarterly newsletter on substance abuse prevention.

The paper will address the selection process, equipment requirements and technical support for computer software. It will focus on the process of introducing computer tech-

nology to a small staff, including staff resistance and techniques to overcome barriers to implementation.

Finally, discussion will center on the appropriate role for supervisors in providing support, encouragement and making appropriate education and training available to staff as a means of facilitating the computerization process.

Social Workers Resistance to Computer Implementation: A Second Look.

Menachem Monnickendam, PhD, Assistant Professor, School of Social Work, Bar Ilan University, Israel.

A. Solomon Eaglstein, PhD., Director, Division of Research, Ministry of Labor and Social Affairs, POB 126, Jerusalem, Israel 91000

It has often been stated that successful implementation of computerized client management systems in human services is hindered by the negative attitude of professional personnel towards system implementation. Three types of factors have been mentioned in this regard:

- intrinsic attitudes towards computer utilization in Human Services;
- organizational factors; and
- system design related factors.

Attitudes towards computer utilization in Human Services include:

- impact on professional values,
- impact on client related values,
- general attitude towards computers, and
- feelings towards computers.

Organizational factors include:

- confidence in ability to computerize,
- organizational support,
- regard for user comments during system design and development,
- end user involvement in implementation process.

System related factors include:

- familiarity with manipulating operational aspects of system's procedures,
- user friendliness,
- contribution of system to job performance,
- impact on treatment process, and
- integration with routine work processes.

In order to understand the impact of these factors on system acceptance an ex–post–facto control group design was employed. The experimental group consisted of social workers who were employed in a local social service bureau where a computerized case management system designed for hands on use by social workers was implemented (n=47). The control group consisted of social workers who were employed in non–computerized local social service bureau (n=42).

Research results did not corroborate the hypotheses that attitudes of the experimental group would be more positive towards computer implementation than those of the control group. However in practice the experimental group showed considerable readiness to use the computer hands on vs. the possibility of filling out forms (66.7%). Further analyses in the relationships between these three groups of variables was carried out to identify factors that imply readiness to computerize. It was indicated that readiness to computerize was related mainly to organizational and system design factors, the exception being the perceived threat to professional values. It can thus be concluded that if during system implementation it can be demonstrated that these values are considered in system design, chances for successful system implementation are improved.

Whose Data Is It?: Exploring the Tensions Between Local, State and Federal Information Needs

Kim House, President and Harold Montgomery, Vice President, In–House Information Systems, 4525 Sheridan Road, Racine, WI 53403–4153

and Jim Kennedy, Deputy Director, Kenosha County Department of Social Services, 714 52nd Street, Kenosha, WI 53140

As the focus of public scrutiny shifts to the effectiveness of a variety of governmentally funded social welfare programs, the need to measure results has never been greater. This has led to a number of efforts to implement computerized information systems to track the participants in a myriad of service programs.

Much of the funding for these programs trickles down from the appropriate Federal and State agencies to the local agencies that need to administer the programs mandated. Often the design of the information systems tied to these programs follows the trickle down of the dollars. Federal information needs are considered, then the State's and finally local concerns. This 'top down' approach to system design usually places a complex burden on the local administering agency–responsibility for supplying the higher level government agencies with their data requirements while having to maintain often very different data for local management. While Federal, State and local agencies share information needs, each level has different requirements that frequently demand very different information systems. To complicate the matter further, localities differ greatly in their needs so that a system developed for a heavily urban area may not be able to be implemented in a rural community without significant revision.

The paper describes the Fraud Prevention Tracking system, which is a personal computer based system designed by the authors to meet local needs then expanded to 72 counties and five tribal units in Wisconsin. The paper discusses how personal computer technology lent itself to retention of data at the local level, allowing for display and local reporting needs to be met as needed, how distributive processing serves State and Federal reporting needs, and how this was done at a fraction of the cost of traditional centralized mainframe systems. The authors introduce the notion that political considerations coupled with conventional mainframe technology distort the idea of ownership of the data, which leads to a misuse of resources and solutions that are unresponsive to not only ever–changing local, but also State and Federal needs. The paper shows how the model overcomes these problems and argues that personal computer based systems, by putting data at the point of use, permit system and hardware simplification while retaining a responsiveness not available with today's mainframe systems.

Computer Applications in Development: Programmes by Maduria Institute of Social work.

D.V.P. Raja, Director, Madurai Institute of Social work, Alagarkoil Road, Madurai, 625002. India

M. Kannan, lecturer, Madurai Institute of Social Work, Madurai, 625002, Tamil, Nadu, India.

The computer is a boon for any school of social work in India. Since we have computers in our Institute we would like to share out experiences with regard to the application of computers in development programmes.

To begin with, we undertook many massive surveys and research studies through our research cell. We have been doing manually the coding, editing, tabulation and statistical analysis part etc., previously. After the installation of computers in our Institute, the massive data from the respondents (N+1000 or 2000) are precoded and analyzed within a few hours. Further with the help of the sophisticated standard statistical software we are in a better position to analyze our data and to draw scientific conclusions.

Secondly, we apply computers for monitoring different aspects like (a) the progress of the activities under special programmes; (b) the progress of the clients in the child guidance clinic and family counselling centre etc., (c) the allocation and distribution of funds are monitored; (d) the performance of the personnel involved in different welfare projects, in terms of their target and achievement are evaluated.

Thirdly, computers are applied for communication purpose. Important notice or information are communicated with the help of standard software like word processors.

Fourthly, we are in a position to preserve the data pertaining to different aspects like conditions of the people in the project area, which comprises 50 villages, different programmes, the strategies and problems, etc. Through this we are able to get the required data about any area within fraction of seconds from our data book.

Socialware (Socioinformatics): New Approach in the Design of Information–Communication–Decisions Systems, Hardware and Software, for Developing Societies

Professor Horacio H. Godoy, Education Research Center, Horacio Quiroga 6498, Montevideo, Uruguay.

The presentation will cover:

- Developing societies and advanced technologies of information/communication and decisions: A comparative systems analysis.
- THE USTeD" SYNDROME: THE UNDERDEVELOPED USE OF DEVELOPED TECHNOLOGIES. The systemic limitations of developing (underdeveloped) societies, –UDS–, to observe, apply, and manage the advanced technologies of information, communications and decisions, –ATICD–. The relations between TECHNOLOGIES and SOCIAL FUNCTIONS in developing societies.
- THE ROAD TO SOCIALWARE:
  - The German's "SOZIOTECHNOLOGIE," Jurgen Rees et. al. (1979); and Uwe Kahlben et. al. (1980);
  - Erwin Laszlo's SOCIOCYBERNETICS (1904);
  - Fernando Flores's THE COORDINATOR, (1982/83), the contribution of linguistics and the "ontological design";
  - Development Theory after the revolution in Information Theory, Information Sciences, and Information/Communication Technologies, –C&C–), (A Latin American view).
- SOCIALWARE: an interdisciplinary approach to design integrated systems to deal with social needs and advanced technologies in developing societies.

ASAP: Automated Screening and Assessment Package, Developed by TX Dept. of MHMR

Mary Anne Mendall, Mendall Associates, 815 Lewiston Dr., San Jose, CA 95136

The Texas Department of Mental Health and Mental Retardation (TDMHMR) serves 26,000 individuals with mental retardation and over 100,000 individuals with mental illness. Services are targeted to individuals with severely disabling mental illnesses and to persons with both mental retardation and severe health needs, behavior problems, or vocational and independent skills training needs. TDMHMR is committed to using automation to help improve the quality of services provided to these individuals. Within a few months, TDMHMR will be piloting its first knowledge–based computer system. That system is called the Automated Screening and Assessment Package (ASAP).

ASAP is an automated screening and assessment tool which assists direct service staff in determining eligibility for TDMHMR services and in performing a global assessment of the person's needs. Need areas assessed are housing, income, basic living skills, socialization, work/school, legal and family stressors.

How is ASAP different? Most conventional systems are management information systems that use database technology to collect, sort and report information. In practice, they are more oriented to agency management than to direct service provision. ASAP also uses database technology to collect, store and report information. Unlike most conventional systems in human services, however, ASAP is also a knowledge–based system. It contains the combined knowledge of many experts. By applying its knowledge base to facts about the individual, it is able to make recommendations to direct service staff about services for the individual.

What is a knowledge based system? The knowledge is embedded in the system in the form of if...then statements. These statements are rules that reflect departmental policy, assessment expertise, common sense heuristic, and instructions by the computer about what tasks to perform and the order in which they should be performed. The resulting computer system collects information from staff by asking questions about the person being assessed. It then takes the information it receives, consults its rule base, and returns with a set of recommendations about the person's unmet needs, type of TDMHMR service recommended, and addi-

tional assessments which should be performed. The result is that the individual can benefit from the best expertise the agency has to offer.

What software does ASAP use? ASAP is being developed in an OS2 environment using application manager, a graphical user interface software development tool. ASAP is being linked to a database called SQL server. The graphical user interface makes it easy and fun to use. A mouse is used to select items from list boxes, to click on radio buttons, and to scroll down text fields. It is worth seeing for its graphics alone. Summary: a 30 minute demo of the system will show how powerful a system can be when it has a knowledge base behind it and a graphical interface at its front.

The Optimum Allocation of In–Home Supportive–Type Services in the Multipurpose Senior Services Program

Leonard S. Miller, Ph.D., Professor, Social Welfare, Office of the Dean, University of California, Berkeley, Berkeley, California 94720

Allocative efficiency in community based long term care focuses on making the best use of purchased in home supportive type services budgets. Exposition includes: the optimization principles, their implementation in a non computationally intensive algorithm; a model of the production of CBLTC in California that accounts for program priorities; and a demonstration that the requisite necessary and sufficient conditions of optimization hold. A decision support system which implements these ideas is demonstrated, its limitations are discussed, and the gains from its use are evaluated. A 15.4% increase in the community days attributable to program is expected from its use.

An Evaluation of Human Services Computer Systems in Orange County, N.C.

Laura I. Zimmerman, Human Services Research Laboratory, CB# 3570, 910 Airport Road, U. of North Carolina–Chapel Hill, Chapel Hill, NC 27599–3570.

The Human Service Directors in Orange County, N.C. have formed a "Team" to enhance communications among the eleven service departments. This is a unique effort in the State of North Carolina. As a Team, the group has been able to make changes that the individual departments could not do alone. The group has plans to improve their services through a shared Master Client Index File (MCIF).

An evaluation of the computer technology in all departments and Data Processing was performed as a preliminary step for the MCIF. The evaluation included an assessment of the departments' computer technology as well as other barriers influencing the MCIF goal. The computer technology assessment focused on the present computer hardware, software, and communication links to other computers. Other barriers, such as confidentiality in a shared client database, data entry and Data Processing support were also covered in the assessment.

The evaluation involved a mailout–mailback questionnaire followed by a personal interview with each department director. Along with a complete assessment of the type of hardware and software on each computer, links with the Orange County minicomputer, and links to the State associated mini/mainframe, data that was needed by the department interviewed, from all other departments, was also collected. Other issues investigated during the evaluation included confidentiality of shared data, the need for consent forms, the practicality of consent forms, data entry into the system, responsibility for the system, the department hierarchy for changing data and the contribution of the Data Processing Departments.

The computer needs in The Human Services Management Team were not being met within departments mainly supported by County funds. Those departments sponsored by funding other than Orange County seemed to have computer equipment that was meeting the departments' needs although not state–of–the–art. The majority of computers within these departments were 8088 systems, many not capable of 640k. The departments generally had enough computers, but not good quality, fast, with more than 20 mbs of storage. Each computer had a dot matrix printer attached. Only the largest departments had a laser printer, of which few, if any were more beneficial than the dot matrix.

In some departments the lack of RAM memory limited software choices. The software in place was not strong enough to handle the needs of most departments, although most different types of packages are available.

Recommendations relating to computer technology included decreasing the total number of computer purchases while improving the power of the PCs. Replace dot matrix printers with laser printers, for faster, better quality printing. Local area networks should be put in place to allow the sharing of files and printers within departments/buildings. Greater support needs to be given to Data Processing in the way of additional personnel and resources to better support the PC technology in the Human Services Departments by the County Administration.

The evaluation resulted in increased awareness of the computer technology available to the Human Services Departments. The barriers still necessary to overcome were mainly practical such as control of the database, explanation of consent forms, data entry and increased PC support from the Data Processing Department.

Training and Education

Computers for Human Empowerment

Susan M. Merritt, Dean, School of Computer Science & Information Systems, Pace University, 1 Martine Ave., White Plains, NY 10606

Nancy Hale, Professor, Information Systems Dept., Pace University, 1 Pace Plaza, NY, NY 10038.

The Pace University College of White Plains Empowerment Project (CWPEP), funded by the U.S. Department of Education Student Literacy Corps Program, was designed to respond to the severe need on the part of homeless teenagers in Westchester County for literacy training. Moreover, the CWPEP responds to the need to motivate toward literacy, since among individuals for whom housing and job are immediate needs, the development of literacy skills may seem less urgent. CWPEP volunteers motivate with computers.

The CWPEP is a student literacy corps of undergraduates of Pace University. CWPEP members take the course "Computers and Human Empowerment" as part of an interdisciplinary program in critical thinking and communication, and provide literacy instruction to homeless teenagers as part of that course. CWPEP volunteers are coordinated and trained by experienced faculty and staff. The presentation will describe the course "Computers for Human Empowerment" and its integration into the project. The goal of the course is to introduce the Pace student to the personal computer and to explore its use as a tool for human empowerment. The student develops a proficiency in personal computer applications including word processing, databases, spreadsheets and communications. The student is introduced to non–profit computing and learns to access established support and service networks. Under the direction of the classroom instructor, the student works one–to–one to introduce the computer to a teenager from a homeless shelter. The student is introduced to tutoring techniques and is assisted in working with the teenager in developing written expression, problem solving and information processing skills.

Evaluation of the program is undertaken at various levels including student academic performance in computing, student effectiveness in tutoring, progress among tutorees, overall impact of service activity among undergraduate students engaged in the program. The evaluation results will be included in the presentation.

"Crisis Counseling" and "Organizational Assessment"

Brett Seabury, Associate Professor, School of Social Work, U. of Michigan, 1065 Frieze Bldg., Ann Arbor, MI 48109

I will demonstrate two interactive video programs that I have authored. The first program, "Crisis Counseling" is in its final form and is presently being used in educational research. The second program, "Organizational Assessment" will be in Beta version by next June. Both of these programs use laser disc technology to create a simulated environment of practice. The first program allows the student to interview a client in crisis, and the second program allows the student to case their field agency by interviewing and telephoning various staff members. Both of these programs have been authored on Quest and run on an IBM compatible platform (PC–XT, AT, OS–2) with either M–Motion, Visage, TenCor, or Infowindow hardware, a laser disc player, and either a VGA or multi–sync, color monitor. Quest claims that their programs are also compatible with Sony View System, but I have not seen or tried my programs out on that system.

The purpose in demonstrating these programs is to encourage other educators and trainers to consider using interactive video technology and more importantly to begin to develop the expertise to develop their own interactive programs. I hope that the programs can be set up in an area that would allow attendees of the conference to sit down and actually run the programs. I am convinced from prior demonstrations of interactive programs that it is only through hands–on experience that others can begin to see the potentials of this educational technology.

Information Technology Availability in Schools of Social Work: Results of an International Survey

Richard K. Caputo, Ph.D., Assistant Professor and Ram A. Cnaan, Ph.D., Associate Professor, University of Pennsylvania, School of Social Work, 3701 Locust Walk, Philadelphia, PA 19104 6214

The introduction of information technology into social work education is essential and inevitable. Little, however, is known about the current rate, nature, and use of computers in schools of social work. This study is the first to focus on the nature and availability of hardware and software; the extent to which computer related courses are integrated into the curriculum; and the types of computers, uses, and users in schools of social work. The sample consists of non U.S. schools drawn from the membership of the International Association of Schools of Social Work (IASSW) and U.S. schools drawn from the membership of the Council on Social Work Education (CSWE).

The study tested three hypotheses:

- Schools in the United States use computers significantly more and for more advanced purposes compared with schools in other countries;
- Schools which offer graduate degrees will be better equipped with computers and use them more extensively; and
- The larger the size of the school, the higher will be the number of computers and the higher the level of computer use.

The findings supported these hypotheses and portend a trend for standardization of hardware and software in schools of social work. Based on the findings, the paper recommends curriculum and policy modifications that should be considered by schools of social work.

Computer–assisted Instruction in Child Abuse Assessment: Does it Work?

Rob MacFadden, PhD, Associate Professor, U. of Toronto, Social Work, 246 Bloor St. West, Toronto, Ontario M5S 1A1 Bitnet: MCFADDEN@vm.utcs.utoronto.ca

This workshop will present the results of a recently completed study that examined the effectiveness of computer–assisted instruction in training new protection workers in child sexual abuse assessment.

This study, sponsored by the Institute for the Prevention of Child Abuse, (Ontario), utilized a control group approach to determine whether use of the Computerized Child Abuse Assessment Training System (C.C.A.A.T.S.) software improved knowledge in this assessment area.

Seventy–six workers were randomly assigned to two groups: control and training. Thirty–nine new protection workers in the training group received a one time, short–term instructional experience via the computer. The control group received no computerized exposure or specific training.

While both groups were almost identical in selected knowledge about child sexual abuse assessment at the outset, the training group, on the whole, scored 9% higher after experiencing the training. From a short–term perspective (experiencing the 2 knowledge quizzes within 8–24 days),

the training group scored 18% higher than the control group.

Attitudes towards training and computers were also sampled within the two groups and will be reported on.

This workshop will present these findings employing Harvard Graphics and discuss their implications for training and the use of CAI. Parts of the C.C.A.A.T.S. program will also be demonstrated and discussion among participants encouraged.

Constructing a Computer Assisted Instructional Package to Teach Case Management Skills

Judith I. Gray, Associate Professor and Thomas P. Higgins, Programmer, Ball State U. Dept. of Social Work, Muncie, IN 47306

This presentation will focus on the development and implementation of a Computer Assisted Instructional Package (CAI) entitled, Problem Solving In Case Management (PIC). This CAI has been used to teach case management skills to baccalaureate social work students. The goals of the computer assisted model are to develop the students fundamental microcomputer skills and increase their understanding of the nature of serious mental illness. PIC broadens the student's abilities to problem solve, provide resources to clients, and leads them to appreciate the value of case management services.

The theories and models used in PIC are: 1) Compton and Galaway's problem solving model; 2) Compton and Galaway's generalist social work practice approach, with a person–in–environment focus; 3) Chubon's computer assisted instructional model which provides the rationale used in teaching case management skills through CAI and; 4) Lamb, Rapp, and Chamberlain's case management approaches with the seriously mentally ill.

The program instructs students to practice prioritizing client needs and apply problem solving skills to the hypothetical case of a seriously mentally ill individual. In order to have a user friendly format, the program was designed and scripted using the Apple Macintosh computer with HyperCard software. The database uses the stacks provided by HyperCard and was customized in an adaptation of a quadtree database format. Upon making initial decisions, students are presented with random outcomes, generated by the program design, which require the additional application of problem solving skills. Students use a Mouse to activate "Buttons" which: direct the program; implement their choices; will access help, current status, and/or dictionary stacks; and print a copy of the student's exercise which the program tracks on a step by step basis.

A unique approach to learning is provided through the PIC program as decisions must be made on multiple levels. This aspect will be highlighted by a "walk through" demonstration. Beyond making specific plans with the client, students must make choices in relationship to additional problems which arise and may type in their own solutions. The simulation is processed with students through class discussion and review of the student's printed exercise with the instructor.

Results from pretest and posttest data will be presented to illustrate the validity of PIC as an appropriate educational tool.

Information Technology Foundations for Professional Social Work Practice: An MSW (Social Service Administration) Curriculum Focus

Robert C. Holloway, Ph.D., Graduate School of Social Work, Portland State University/RRI, POB 751, Portland, OR 97207

Professional social work requires knowledge, access, and utilization of tremendous amounts of data which must be organized as relevant information across a very wide policy–practice domain. It is ironic that many graduate schools of social work (U.S.) are far behind in teaching current information technology (IT). The recent dramatic cost reduction of extensive computing power through microcomputerization offers even small human service organizations (HSO's) tremendous supports for the utilization of current IT. This has generated a paramount need for IT competent graduates from schools of social work to update the field of social service administration.

Effectively designed social service administration (SSA) curricula in schools of social work can offer a unique and important mix of client advocacy insights and modern technology. Courses focused on client advocacy and current IT must be based on a service–outcomes accountability orientation and effectively and efficiently operationalized through the use of computer based client tracking management information systems (MIS). Courses must focus students on client advocacy, case management, client tracking, and relational database designed computerized MIS.

Client tracking databases are key prerequisites to true client advocacy or accountability because they offer effective and efficient support of potentially elaborate client specific diagnostic, service utilization and service outcome information. Also, instruction in such areas must establish some set of minimum competency standards for human services information technology in professional social work practice.

This paper will present the above via a discussion based on the demonstration of an actual student (graduate social work) developed client tracking management information system (prototype copies of the software will be available for dissemination).

What Computer Based Training Can Do for Budget Stressed Agencies

F. Dean Luse, Ph.D., M.S.W., President, OUTPST Software, 119 Wilson, Park Forest, IL 60466

Computers successfully handle many types of agency operations, but they are rarely used to upgrade skills of staff needed to deliver effective services to clients.

Demographics of the 90s offer a shrinking pool of persons in the employable ages, many without adequate educational preparation. Agencies with limited pay scales are challenged to attract and hold qualified staff in a tight labor

market. These conditions suggest a worthwhile area for development.

Computer Based Training (CBT) is an established technology that has demonstrated efficacy in hosts of applications, business, industry, medicine and the health professions, academia, and others. CBT is the fastest, most cost effective, and reliable way to deliver instructional materials.

What is Computer Based Training (CBT), how does it work, and how can it help train people in the sophisticated people skills of the human services? Major styles and types of CBT that are most suitable for human service instructional programs will be explored. Advantages and disadvantages of CBT will be detailed, when and under what conditions CBT is worthwhile to the human services.

Using CBT for training and instruction is easy, straightforward, and very cost effective. However, developing comprehensive, easy to use, effective CBT lesson materials, is more difficult, more complex, more time consuming, and more expensive than writing text books. Factors involved in developing CBT, staging projects, involving personnel with many specialized skills, and how they link together will be explored. Costs, design, and ethical issues will be discussed.

CBT materials should be integrated with other instructional materials and methods used in staff development. CBT does not stand alone. Learn how CBT provides individual attention to learners while freeing trainers to use their unique talents best in staff development programs.

We will discuss strategies for breaking down the barriers and obstacles to CBT development in the human services.

Eliciting Expert Knowledge for Expert Systems: Many Paths, Many Difficulties, a Few Solutions

Rami Benbenishty, Ph.D. School of Social Work, Hebrew University, Jerusalem, Israel

Recently there is a growing interest in designing expert systems to aid social workers in direct practice. Building an expert system requires one to elicit expert knowledge and then to translate it into a computer program. While there is much progress in the area of computer resources, shells, and programs, little has been done to improve our ability to elicit expert knowledge. Several authors have identified the "bottleneck" of the stage of helping experts to articulate their knowledge in ways that would allow the design of a valid system in a reasonable amount of time and expenditure.

This paper reviews several methods to elicit knowledge. Some of these methods are being used today to elicit knowledge and others have been used more for research purposes. The advantages and disadvantages of these methods are discussed in light of an ongoing project to elicit expert knowledge in the area of children at risk and the design of an experimental expert system in the area. The paper attempts to integrate between expert knowledge derived via techniques used traditionally in research on decision making, and knowledge elicited via the more orthodox techniques of interviewing.

Computer Tool Use for Math Inquiry: A Collaboration Between Public Schools and a Community Center for Intergenerational Project Based on Learning

Andrea Kimmich-Keyser, Director Harlem Community Computer Center, Playing to Win, Inc., 1330 Fifth Avenue, New York, NY 10026

Playing to Win's Harlem Community Computing Center is home to a project integrating the use of computer productivity tools in math skills exploration at home, at school, and at a community based organization. Parents, children and their teachers participate in a variety of activity modules taking up from their experience base, in which word processing, database management, spreadsheets, graphics, and desk top video constitute the tool base for these activities.

A typical activity prompts students and parents to survey local stores and interview proprietors, collecting examples of real life use of mathematics. They then develop a neighborhood directory of stores along with a descriptive map showing their locations. In the process children and parents use word processing to write up the interviews, databases and spreadsheets to record survey results and model math problems, computer graphing tools to compare the results, and computer graphics to create the map.

Other activities incorporate the same range of computer applications for exploring real life probability concerns, such as the likelihood that their favorite rap artist will soon head the "Top 100 Hits" chart. Still others focus on using computer assisted drafting skills to play with a variety of scales, developing and exploring algebraic equations and their graphic representations accordingly.

Five such intergenerational activity modules for use in and or out of school will be presented, with participants invited to get hands on experience.

Interactive Tutoring System (ITS) for Training Professionals Working with the Victims of Alzheimer's Disease

Jong Won Min, Faculty of Social Work, The University of Calgary, 2500 University Dr. N.W. Calgary, AB, Canada T2N 1N4

This presentation will report on a prototype program called "Demystifying Alzheimer's(DA)," which is designed to train human service professionals working with Alzheimer's Disease (AD) victims and their families. The goal of the prototype is to enhance the professionals' knowledge and skills, so they are better equipped to provide appropriate services for AD clienteles.

Alzheimer's Disease has been known as having negative effects on the elderly in terms of deteriorated mental functioning and behavioral manifestation. The caregivers of people with Alzheimer's disease have been reported to suffer from stress and strain due to the demands of caring for older people with Alzheimer's disease. These families experience problems in their physical and mental health, and social functioning. Consequently, these primary caregivers are in great need of appropriate help and services from human service professionals working in the field of gerontology.

Demands placed upon human service professionals in gerontology to provide the appropriate services to the victims of Alzheimer's Disease(AD), precipitates the need for professionals to improve their knowledge, skill, and awareness of resources in caring for the victims of Alzheimer's Disease. However, while the needs of families' educational and emotional support are evident, the lack of preparation of professionals is an impeding factor to the provision of appropriate services and support. Few of the current approaches to training professionals adequately addresses the ill–preparation of professionals.

Recent development and advancement of computer technology, specifically the introduction of the hypertext concept, renders potential for effective training tool. Computer–assisted training programs based on the hypertext concept would make it possible for trainee to tailor the several training modules to their specific needs, thus provide them with high level of control, and flexibility in training sessions. Individualized computer–assisted training involves interaction and control over the process of training material. Therefore, "Demystifying Alzheimer's(DA)," an interactive tutoring system, was developed to train professionals, aiming to improve their ability to better assist the caregivers of those with Alzheimer's disease.

The "DA" consists of three modules.

- The first module involves educational content. Section includes : (1) the comparison between normal aging process and pathological aging process, (2) Alzheimer's Disease(AD), including the cause, diagnostic evaluation of the disease, symptoms, and treatment available.
- The second module focuses on the improvement of helping skills including: (1) the assessment of the needs of the families, (2) general communication skills and problem–solving techniques, such as handling the practical difficulties, (3) an overview of basic strategies on activities of daily living.
- The last module deals with the needs of the caregivers including ; psychological, social, legal and financial issues families may face in the care of older people with Alzheimer's disease.

This presentation will focus on the development of "Demystifying Alzheimer's(DA)," an interactive tutoring system designed to enhance the professionals' knowledge and skills essential to the delivery of appropriate service to AD victims and their primary caregivers.

Creative Applications of Computer Software in Alternative Education Programs

Frank Migliorelli, Director of Technical Assistance and Program Development, Playing to Win, Inc., 1330 5th Avenue, New York, NY 10026

Alternative education programs that are using computers need new and different approaches to subject material that go beyond the traditional classroom model of teaching and learning. Computer technology and software can greatly enhance alternative programs, but they need to be used as motivational tools for learning as opposed to rote drill and practice machines.

This past year Playing to Win, Inc. has been involved with a number of alternative education programs and has developed activities that address the needs of their participants. Working with the Academy for Educational Development, Manpower Demonstration Research Corporation, and other individual clients, PTW has enhanced their curricula by developing activities and methods for serving their target populations. PTW used various application (tool software) programs and existing computer software to teach resume writing skills, basic academics, personal budgeting, and other important life skills.

A PTW staff member will present the basic ideas behind the activities, illustrate the use of particular software packages, and exhibit completed works documenting student progress.

Automation in the Care for the Mentally Handicapped: An Educational Approach

Dr. Harmen W. Grebel, Hogeschool Eindhoven, P.O. Box 347, 5600 AH Eindhoven, The Netherlands.

Automation has long since been important in clinics for mentally handicapped care. Like in other parts of health care, automation is penetrating now the care of the residents themselves (after the administration and the financial departments).

For professionals in the clinics, group leaders, assistants, as well as physiotherapists, etcetera, the time will come soon when they will check status, plan activities and inform parents by means of a computer. The professionals will have to establish a relationship with the automated systems of the institutions they work in. They will have to learn how to work with the system in terms of data entry and retrieval. More importantly, they must understand the way they can use the system to get a grip on the effects of their acts.

Hogeschool Eindhoven, CAUSA, is developing a curriculum for the workers in those clinics; a curriculum which will be adapted for the initial education in the school itself. We will use a prototype of an information system to focus the attention of workers and students. This prototype is a development of the National Hospital Association of the Netherlands (NZI). This prototype (Proza–Z) is based on a vast research project which has resulted in well defined functional specifications for a hospital wide information system (electronic archiving, communication and accounting for resident–care).

Outline of the paper.

- Current impact of automation on higher education and inservice training in hospitals for the mentally handicapped.
- The results of a field study regarding the needs for education on automation.
- Development of information systems in the hospitals; focus on the residents.
- Developing a curriculum module: learning goals, teachers' knowledge, contents, tools.
- Making use of a prototype as a tool for learning.
- Implementation in the curriculum.

The Dutch "National" Curriculum for Social Work Education

Dr P.G.M. Rosenboom, Hogeschool Eindhoven, POB 347, 5600 AH Eindhoven, Netherlands.

Introduction

October 1990 the curriculum description of a complete set of curricula for computer applications for the Dutch Schools of Social Work will be finished. As an official publication, this document will be available in January 1991 (approx.) It is produced by Hogeschool Eindhoven (School of Social Work, Dept. CAUSA) as the main contractor.

Four other Dutch institutes of Higher Professional Education contributed as sub–contractors. Principal is the Dutch Council of Higher Education.

Outline of the paper.

- Current situation of Computer Applications in Social Work education in the Netherlands.
- A new policy in curriculum development initiated by the Dutch Council of Higher Education.
- The basic philosophy of the curriculum: integration in the existing curriculum and a firm relation to social work practice.
- The development of the curriculum:
  - four studies of the impact of information technology in social work practice,
  - learning goals derived from these studies,
  - description of curriculum modules to be integrated in the existing curricula.
- A case description: Social Casework:
  - use of computer applications in social casework,
  - social effects of information technology as far as it generates problems to be solved by social casework,
  - learning goals for social casework education,
  - the curriculum modules for social casework curriculum.
- Implementation strategy of the curriculum.

Educational Software–Where, When and How?

Dr. Albert Visser, Central Netherlands Polytechnic, School for Social Professions, P.O. Box 131, CULEMBORG, The Netherlands.

Since 1984 there has been an increasing interest in the use of computers in social work education.

There are different ways of using the computer in education:

- To learn about actual use of computers in field practice, As a tool that can improve professional practice,
- As a learning tool of a comparable technical type as video or audio systems, it is supposed to be, in certain cases, the best way to clarify the contents of specific learning goals,
- As a learning machine, with courseware, called self–containing software. The software offers a complete course on a special topic, with full feedback and tests for the

students.

- As a tool for the student and teacher administration and registration of learning results.

On each of these different ways of computer use there are local, regional and national projects in the Netherlands going on. Some of them I will mention in my presentation.

All of these projects have the same problem with implementation.

One of the first things to do is to make teachers aware of the fact that they have a problem and that the computer, together with educational software, is a solution for them.

I will give examples of some of problems teachers have, without knowing them or ignoring them.

Teachers are willing to accept computers and software as a solution under the following conditions:

- The offered solution must result in a smaller amount of time he/she invests in the teaching process (a matter of TIME);
- The teacher must be convinced that this is a better way of reaching learning/teaching goals in professional education (a matter of CONTENT);
- If the teacher chooses for software and computers this decision must be supported by the management and the treasurer (a matter of environmental conditions: ORGANISATION and MONEY);

To convince teachers that they need educational software you do not need a computer expert nor the information technology expert, but what you need is a change–agent.

A Change–agent with excellent qualities in change processes and with thorough knowledge of the subject matter.

The change agent is initiating and coordinating the change process and making the changes compatible with the different organisational sub–systems in the organisation. Change processes have to be planned in time and space. Only under these conditions can the implementation of educational software be successful.

The Playing to Win Network: A National Plan for Community Based Computing

Laura Jeffers 1330 Fifth Ave. N.Y., N.Y. 10026

The Mission of Playing to Win is to promote and provide access to technology education for underserved people. Playing to Win has been in existence for over ten years. Each week at our Harlem computer center we help 500 people of all ages learn how to use computers as a tool for achieving their own goals. Through our technical assistance program, we have helped a number of organizations start their own technology assess programs.

The Playing to Win network is a national affiliation of community technology learning centers. The purpose of the network is to provide ongoing support to other organizations that are committed to promoting access to technology. Such organizations might have a program in place, or may want to start one from scratch. Playing to Win offers affiliates staff development workshops assistance with program development, and teaching materials, as well as advice and guidance on such issues as fundraising, community outreach, staffing, and security. Affiliates are encouraged to become network resources themselves by documenting

programs and approaches which have been especially successful and by sharing their particular expertise with other affiliates. An electronic network will provide an opportunity for affiliates to share resources with one another.

This presentation will cover some of the innovative ways in which network affiliates are using computers to address the needs of their communities. It will also include a discussion of some of the issues inherent in the network, such as how community based organizations can work together most effectively within such a structure, and how playing to win can assist them in meeting the needs of a variety of populations.

Interactive Tutoring Systems: Utilizing Information Technology for Teaching Statistics in the Human Services

Jackie D. Sieppert, Research Coordinator and Floyd H. Bolitho, Faculty of Social Work, University of Calgary, 2500 University Dr., N.W., Calgary, AB T2N 1N4

Human service educators are currently faced with multiple and competing demands placed upon them by senior administration, teaching responsibilities and concern for students. More often than not educators are faced with the dilemma of balancing dwindling resources and exploding class sizes. However, educators remain responsible for providing quality instruction to their students. As a result education in the human services is frequently compromised in attempting to provide students the utmost in learning. At times traditional methods of instruction do not lend themselves well to teaching human service students, suggesting the need to explore alternative modes of tutelage.

The workshop will discuss the relative merits of one of these alternative methods of instruction with regard to the area of introductory statistics. More specifically, the workshop will outline some of the problems and deficiencies of current methods of statistical instruction, the need for a new, innovative approach to this instruction, and the potential of a new information technology, called "hypertext," for overcoming the problems of teaching.

Recent advances in information technology have resulted in the development of hypertext based software. The idea of hypertext is relatively simple, yet elegant in its power. Hypertext is a term that describes masses of information that can be accessed nonsequentially. The result is a totally nonlinear collection of pieces of information of any size that all relate to a single topic or idea. This allows hypertext users to explore individualized paths or lines of inquiry at any point, depending on what he or she is interested in investigating. Such a capacity promises to be a natural, powerful adaptation in assisting students in learning statistics. Unlike traditional software applications, hypertext may offer a technique that will facilitate students in accommodating the new, structured way of thinking imposed on them by statistics. We may finally have a method of nullifying the disappointment engendered when students do not perform as well as we, the instructors, would wish.

In order to analyze the nature and potential of hypertext a prototype interactive tutoring system (ITS) for statistics was developed that would accommodate differing backgrounds, expectations, and abilities among students. This statistics tutorial facilitates individualized, self directed learning of introductory statistics. Moreover, it enables the instructor to focus more directly on pivotal concepts and areas of particular difficulty.

The ITS offers an approach to instruction that is both meaningful and adaptable to the individual student. It could easily be adapted and incorporated into the introductory statistics courses of those educators who are currently faced with the dilemma of balancing dwindling resources and expanding class sizes with a concern for quality statistical instruction. Moreover, it explores a tool that offers much promise for strengthening the teaching of statistics, and may eventually promote statistical competency among human service workers.

Automating Case Management in a Multidisciplinary Program for Frail Elderly and Disabled Adults

John J. Kenney, MBA, DSW, Director, Assessment Center, Carol L. Pearson, PhD, Director of Research, Rebecca Seagle, and Nancy Bowes, Montgomery County Dept. of Social Services, 5630 Fishers lane, Rockville, MD 20852

The purpose of this paper is to describe the impact of the development and implementation of an automated system, called ADAPT (Automated Database for Assessment, Planning and Tracking), within a multidisciplinary, community–based case management program for frail elderly and disabled adults in Montgomery County, Maryland.

Within the Assessment Center, a joint program of the Montgomery County Departments of Health and Social Services, a multidisciplinary staff consisting of 35 social workers and community health nurses provides information and referral, assessment care planning and case management services to 375 clients monthly. Programs administered within the Assessment Center include Adult Protective Services, Geriatric Evaluation Services, Pre–Admission Screening and Annual Nursing Home Resident Review, and Social Services to Adults.

The ADAPT automated case management system was developed to include a multidisciplinary assessment instrument, an interactive resource directory, a problem–oriented care plan and an ability to generate routine and customized management and statistical reports for both external and internal reporting requirements. The ADAPT case management system is IBM PC based and operates on a NOVELL multi–user network consisting of 15 work stations. The ADAPT system can be copied onto a laptop computer in order to conduct assessments within the community.

This paper will describe the process of development and implementation of ADAPT within an environment with little or no computerization. Results will be shared from an evaluation conducted to assess the impact of the system on staff attitudes toward automation and time spent completing tasks. The ADAPT system is being expanded into other sections of the Adult Services Division (Home Care, Adult Foster Care, Long Term Case Management and Continuing APS/Public Guardianship Services). This will extend access to the system to up to 35 new staff and community agencies. Problems, triumphs, and lessons learned will conclude the presentation.

Direct Practice Intervention

MY ASSISTANT: A Computer–Assisted Case Management System

Wallace Gingerich, PhD, Associate Dean for Academic Affairs, Case Western Reserve U., Mandel School of Applied Social Sciences, 11235 Bellflower Road, Cleveland OH 44106.

Janet Schirtzinger and David Hoffman, Family Service of Milwaukee, Milwaukee, WI.

This paper reports the design and development of MY ASSISTANT, a computer–assisted case management system implemented on a notebook computer. (MY ASSISTANT was developed in a home–based case management program serving pregnant and parenting teens.) Intended as a personal productivity tool, MY ASSISTANT assists the practitioner in all phases of the case management process. The program is organized around specific case management goals, which become the basis for entering progress notes, tracking progress, and making a variety of case decisions. MY ASSISTANT also performs caseload management functions such as compiling administrative reports, advising the practitioner on which cases are or are not progressing toward their goals, and identifying cases that need to be contacted.

The paper begins by placing the current project in the context of previous efforts to utilize computer technology in direct practice. Then, the goals of the project are outlined, all of which relate to improving the quality and efficiency of case management services. Next, the design and development process is described, with particular attention to the involvement of the potential users in all phases of development. the design of the program is described next, including the data structures, as well as the programming environment and hardware used to implement it. Preliminary feedback on the impact of the system on case management practice is presented. The paper closes with a discussion of future directions in using information technology to assist case managers.

This presentation will include a live demonstration of MY ASSISTANT.

The impact of clinical information systems on human service organizations

Daphna Oyserman, Ph.D. and Rami Benbenishty, Ph.D., Hebrew University of Jerusalem, Israel

Clinical information processing forms the foundation on which rests the direct practice component of human service organizations. A body of research has accumulated suggesting limits, biases, and problems in human judgment and clinician's information processing capacities and capabilities. The new information technologies have the potential to support clinician's information processing and human service organizations (HSO) are beginning to utilize this information technology for a variety of purposes.

A systematic study of the implications of utilization of clinical information systems (CIS) for the process and outcome of direct practice is presented utilizing a human problem solving paradigm. Five stages in the problem solving process are identified: Information collection, information processing, professional judgment, decision making, and action. They are viewed as stages in a feedback loop such that the action sequence of one cycle leads to an information collection stage in the subsequent cycle and so on. The possible impact of a CIS on practitioners at all levels, from line worker to HSO clinical leadership is analyzed at each of these five stages. A case example of the CIS developed for the foster care service in Israel is utilized to illustrate the implications of CIS utilization. Our analysis suggests that both the process of utilizing a CIS and its outcomes, i.e. the data collected in the course of its operation, is likely to influence practitioners' style, the process of practice, and the direct practice unit of the HSO as a whole. Short and longer term effects on the practitioner, the HSO, and the training of social workers are discussed. Positive and negative impacts at each level within each of the five information processing stages are described, as are interrelations between the impact of the CIS at one stage and the impact of the CIS on subsequent stages in the problem solving process.

A Clinical Information System For Foster Care In Israel

Rami Benbenishty, PhD, and Daphna Oyserman, Hebrew Univ. of Jerusalem, Jerusalem, Israel, 91905,

In western countries there is great concern that children placed out of home may lose any permanence and may be adrift in the welfare system. One of the many ways to avoid the dangers associated with "drift" in the system is to improve the monitoring of the situation of children in care, using modern information technology as a practice aid.

The paper describes a clinical information system to monitor children in foster care. Fanshel (1982) has developed a management information system to monitor children in care which allows administrators access to updated information about the case load, children at risk, or the movement of children through the system. Our aim was to develop an information system geared more to the clinical aspects of the foster care service.

The system is designed to respond to the information needs of practitioners on all levels of the foster care system, from line workers to foster care leadership. It is based on forms and computer programs created to process these forms. The relevant literature, the state of currently existent files and forms, clinical expertise, and assessments of feasibility were taken into account in deciding what information to collect. The inclusion criteria were two–fold: information was to be clinically relevant to front line social workers and its collection was to be an integral part of ongoing practice. The computer programs which undergird the system were designed to tailor fit the information needs of foster care.

Reports based on the information collected in each form are generated for individual workers, clinical supervisors, and system administrators. Reports are generated at the level of the individual workers, clinical supervisors, and system administrators. Reports are generated at the level of the individual client, individual caseloads, and larger aggregations. Collected information is accumulated in a database which is used to analyze foster care on a national level. In addition, topic focused research projects are carried out to explore specific issues in greater depth. Thus, the local generalization capacity of the system is enhanced.

In the discussion we examine the future viability of the system and its possible effects on the process of practice and on clinical judgment.

Computer Aided Problem Management

Ken Manning and Margaret Manning, 301 Green Lane South, COVENTRY, West Midlands, England.

Clearly, managing change successfully is an important skill in today's world, and never more so than for people involved in human service work. It is important to make the distinction between routine problems that are resolved easily, and the more complex situations which require a greater awareness of the process of problem solving, and an informed ability to apply such knowledge systematically. This could include clarifying problems, controlling innovation, resolving difficulties, or organising change.

Regardless of whether situations are resolved successfully and to what degree, it is unlikely that the process will have been accompanied by any conscious reasoning. It could therefore be argued that by developing a more conscious and structured approach to problem solving, there is potential for:

- Saving time;
- Improving the quality of response; and,
- Accelerating the rate of change.

In developing a computerised information resource that focuses on problem management, this paper describes the influences on the type of material and the system used to computerise the information. It also considers the implications for practice in terms of:

- The need for training in problem management;
- How the resource could be applied;
- The benefits of such a resource.

The idea behind this approach is to provide structured information which has been arranged into logical stage–like sequences to help transpose problems into achievable goals. Although this particular application concentrates on problem management, it is only one in a series of available programs which attempts to establish a knowledge based resource for practitioners.

The need for such a resource is highlighted when individual differences are compared between experienced and inexperienced personnel and their ability to solve problems. Initially, inexperienced workers when dealing with problems tend to:

- Form a different mental representation of the problem;
- Be less able to organise the information;
- Have difficulty recalling all the factors involved, and
- Lack a stylised response pattern in their approach to problems.

Experienced practitioners eventually develop a competence in problem solving through practical involvement, rather than from the application of information from a body of researched knowledge. This does not necessarily mean that practitioners are less willing to learn more about specific problems, but that the information is not readily available to use within the system.

Unfortunately, this does not benefit new workers in terms of providing initial guidance or in the transfer of skills, as experienced staff largely impart experiential rather than researched knowledge, thereby restricting performance and limiting potential for growth.

The development of a centralised or transportable research knowledge based resource will assist and support all practitioners in their endeavour to provide an improved, professional service for their clients.

Trends and Forecasts

5th Generation Human Service Systems: Some Initial Specifications

Myron E. Weiner, School of Social Work, The University of Connecticut, 1798 Asylum Ave., West Hartford, CN 06117–2698.

During the early 1980's, there were predictions that human service professionals and agencies would be able to use state–of–the–art technology on a wide–spread basis. The advent of "4th" generation systems bedded in the concept and technique of "user–friendly" software made this prediction a reality.

There is now another, perhaps startling, prediction. The 1990's will see "user–friendly" systems become available to clients and recipients of human services, directly in their dwelling units. These "5th" generation systems will connect telephones, televisions and cable systems currently in homes and tie them together with "user–friendly" software. They will also make people part of telecommunication–computer networks of community human service agencies and professionals.

Both digital and whole–image data–based information systems will become available to permit DIRECT use of community human service systems for a wide variety of purposes, such as:

- Resource: helping pinpoint potential, available resources
- Ticklers: giving reminders to clients or citizens
- Scheduler: making appointments directly
- Instructor: providing cradle–to–grave education
- Searcher: putting information at the fingertips of people
- Transactor: processing paperwork
- Dispatcher: arranging for normal or emergency help

Fifth generation systems will have the potential to bring "user– friendly" to its ultimate destination: to domicile–based services managed by clients and their families.

As with other generations of systems, the fifth generation human service system requires a generic set of design specifications that is intricate, integrated, unidisciplinary as well as transdisciplinary. This paper will attempt to identify and describe specifications, their conceptual foundations, and the approach necessary to achieve their successful and effective use.

From "Information Overload" to Meta–Thought

Richard Reinoehl & Linda Iroff, Oberlin College, 46180 Butternut Ridge Road, Oberlin OH 44074, Bitnet: $linda@oberlin,

Computers and the resulting access to increasing amounts of information can effect scholarly thought, particularly by fostering a movement toward meta–theory.

The use of computers in human services can effect the thinking process of users. For instance, we know that the process of developing databases and expert systems can help to clarify conceptual thinking. We also know that the use of dynamic modeling programs can provide less linear and more "organic" models and theories whose simulation incorporate feedback loops, interactive effects of multiple causal agents and so forth.

In contrast, the now common use of computers for bibliographic information retrieval is less direct in its effect on thinking but is potentially much more powerful. A computer–based search can reveal several thousand articles on a single subject. The problem becomes one of refining the search and otherwise sorting through the information to which one has access. Unfortunately, research on library use has shown that many scholars are using somewhat capricious limitations to control the amount of information they receive.

Fortunately, the use of meta–methods as an approach to transforming large quantities of information into meaningful knowledge is emerging as a positive alternative. "Meta–analysis" (the analysis of the findings of many individual quantitative studies) and "meta–ethnography" (a method of synthesizing from a range of qualitative studies) have already entered the human services literature. The possible addition of meta–analysis summaries to computerized bibliographic information has been recently proposed.

Another meta approach, "meta–theory" (the study of the nature and relationships of theories) is as yet peripheral to the human service literature. Application of a meta–theory approach can reveal the structural and dynamic inter–relationships among theories. This approach can, and does, guide scholars in formulating more meaningful research questions. Perhaps more importantly it can stimulate the development of new theories, particularly macro–level theories, which not only incorporate other theories within its structure but provide a broader, more integrated explanation of why these theories work as they do (an example of such a case will be used). Thus, by stimulating a move to meta–levels, the problem of Information overloads actually provides the force which can underlay the further development and unification of social science theories.

The Present Situation of Usage of Information Technology in Human Services in Belgium

Jan Steyaert, University of Antwerp, Department of Social and Political Sciences, Universiteitsplein 1, 2610 Wilrijk, Belgium.

In the course of the forthcoming academic year, we will conduct an exploratory research among the social work organisations in Belgium, to make an assessment of the usage of information technology in social work organisations.

We try to follow the outline of the questionnaire of the ENITH network (European Network for Information Technology in the Human Services) as closely as possible, according to our means and to the specific Belgium situation.

We will present the result by means of a poster, and discuss peculiarities of the Belgium situation, compared with the other European countries.

Simulation Models in Structuring Policy Problems

Salvatore Imbrogno, Professor, The Ohio State University, 1947 College Road, Columbus, OH 43210

Knowledge in and about simulation and its applications to structuring problems is vital to the understanding of social policy planning and development. Advancement made in social policy theory and methodologies have paved the way for inquiry into the inclusion of computer simulation technology. An accelerated use of this advance technology is imperative with the rise of highly complex human service systems, the over abundance of information and the increasing practicality made of computers technology to macro practices. It seems propitious to spearhead computer simulation models into the knowledge foundation of social work macro practice.

The focus of this paper is on an ontological conception, epistemological foundation and methodological directive to the use of computer simulation in structuring policy problems. The intent is to introduce a computer simulation problem solving model to policymaking. One way to achieve this is to establish the relationship between mainstream policy theories with their existing analytical frameworks juxtaposed to the emerging methodology of computer simulation; all within the context of problem solving models. Mainstream policy analytical frameworks comprise five models for policy representation, models for policy behavior, models for system behavior and models for policy performance.

The acquisition and utilization of this theoretical and conceptual perspective is viewed as vital to the continued viability of social policy analysis and development in complex human service systems.

On Dehumanization and Computer Bonding

Richard Reinoehl & Linda Iroff, Oberlin College, 46180 Butternut Ridge Road, Oberlin OH 44074, BITNET: $linda@oberlin

Critics of information technology often decry the "mechanical nature" of computers as having a dehumanizing affect on users and society in general. Sherry Turkle, author of The Second Self: Computers and the Human Spirit,is one of the better known critics.

In her book, Turkle asserts that users attach themselves to both video games and computers in ways which elevate the machine to the level of a secondary "self". She also concludes that such attachments are directly related to the perception and description of one's self as a computer–like

machine. Although Turkle appears correct in her first conclusion, her second is less persuasive and ignores some important issues. In the first instance, that of users' attachment to computers, she is supported by mainstream social theories and models related to the development of bonding. That is, AI research and application has enabled computers to provide the contingent behavior (interactive responsiveness) that is a primary factor in human bonding. The addition of audio and video control further enhances this aspect with the ability to provide modeling, role playing, and feedback on key elements in Social Learning Theory.

Related, but not addressed by Turkle, is the role of contingent behavior in the development of self–efficacy. In the latter, meaningful responses are know to increase an individual's perceived efficacy with a resulting increase in valued personality traits, such as feelings of emotional well–being and persistence at tasks. In this context, there is ample evidence which shows that computer systems can provide either meaningful or non–meaningful responses. Although the technology used does make a difference, the primary variables underpinning the psycho/social impact of computers often lies with the human decision makers. In organizations, for instance, computer systems can be developed in ways which increase organizational rigidity and even frustrate employees to the point of their engaging in outright sabotage. Systems can also be developed which increase worker self–efficacy, with resulting increases in completion of tasks, and employee loyalty and moral. Thus, although we agree with Turkle that user/computer bonding does occur and has an effect on self perception, it is the nature of the dynamics in an organization's decision making which will most affect how their computer(s) impact the human spirit.

Turkle's second conclusion is that computers can generate dehumanizing machine/self–perceptions, and she provides some specific cases as examples. The main flaw here is she fails in causal attribution. That is, individuals who are already estranged from their own feelings and/or social peers are frequently attracted to activities that involve complex logic and a lack of human feeling, such as mathematics, chess, or computing. Such attachments may well allow, or reinforce, estrangement without being the primary cause.

Indeed, Turkle does not show that computers create or increase alienation beyond that which we would normally attribute to other causes in an industrialized society. What she best shows is that metaphors of people–as–machines has changed to incorporate computer terminology. In fact, a review of popular and academic literature fully demonstrates that perception of people–as–machines has been with us long before any impact of computers.

In criticism of information technology, Turkle and others often ignore the widespread use and impact of electronic mail and bulletin boards. Recent reports show that such networks provide an environment where many human characteristics (such as skin color, physical impairment, or indicators of low social status) which can evoke social ostracism, have little relevance. Rather, there is increasing evidence that such networks, utilized in both the "computer culture" and in human service treatment settings, provide an effective avenue for increased socialization and the deepening of human relationships. Additionally, networks can foster a sense of community through a shared computing environment, and can experientially confirm the world as a "global village".

In concluding, Turkle does say that computers can cause individuals to reflect in ways that can renew a sense of self–determination over a mechanistic determinism. However, it is how we use computers, not some intrinsic machine–like quality, which will most effect us. Fortunately, these trends already illuminate the future of the human–computer relationship as one not of de–humanization, but as one of partnership in human development.

Research

Computer Technology and the Human Services: Does It Make A Difference?

Anthony J. Grasso, D.S.W. U. of Michigan, School of Social Work, 1015 East Huron St., Ann Arbor, MI 48104–1689.
Irwin Epstein, Ph.D., Hunter College, School of Social Work, 129 E. 79th St., NY 10021.

Advocates for the application of computer technology in the human services assert that it promotes organizational and practice effectiveness and organizational efficiency. Opponents claim that it reinforces the worst, most punitive aspects of bureaucracy and fragments professional practice. While each of these positions rests on conflicting theoretical assumptions about bureaucratic structures, professionalization and information technology, advocates and opponents alike have failed to recognize that these issues can be framed and tested empirically.

This paper proposes that practitioners of information technology begin to study the organizational and practice implications of the introduction and implementation of computerization. More specifically, it proposes some alternative research designs and strategies for taking into account natural variations in computerization of professional functions and human service agencies. In addition, it identifies a range of variables which must be taken into account if these important questions are to be adequately addressed.

From Rules to Prototypes: Adapting Expert Systems to the Nature of Expertise in Clinical Information Processing

Ray Carlson, PhD, Professor, Maritime School of Social Work, Dalhousie U., Halllfax, NS B3H 3J5, Canada

Traditional expert systems attempt to represent the complex decision rules used by experts. This approach has some defined successes but has been less effective with tasks involving more than one problem area. Clinical information processing commonly reflects such multi–dimensional problems.

Recent research on expertise in complex areas suggests that cognitive processing is characterized by detailed representations of prototype case situations. Such prototypes are derived from integrating memories and seem effective in organizing the complex information needed for clinical decision making. With extensive experience that incorporates a reasonable range of information and includes good feedback, such prototypes can surpass available knowledge in suggesting appropriate interventions.

Capturing such expertise and organizing it for guidance for the less experienced remains to be demonstrated. This paper summarizes the results of efforts to capture such expertise. It describes some of the more effective techniques and notes some problems with expertise that characterize clinical works in fields such as mental health.

The paper also describes a process for creating computerized case simulations from a combination of experience–based and research–based assumptions. Clinicians with less experience use the computer presentation of these simulations to develop appropriate memories and hasten development of solid experience–based simulations. The paper concludes by emphasizing that the key expectation is that any such computer supports will lead to improved benefits for consumers. As a result, some attention is directed at assessing impact in relation to service outcomes.

Computer Assisted Drug Prevention & Treatment Evaluation

John G. Robertson, MSW, Coordinator, Research, Integrity, Inc., P.O. Box 510, Newark, NJ 07101

Judith Waters, Ph.D., Professor of Community Psychology, Fairleigh Dickinson University, Madison, NJ;

Michele D'Amico, Special Projects Manager, Integrity, Inc., P.O. Box 510, Newark, NJ 07101

Drug addiction research is conducted to improve the treatment process, monitor the delivery of services, and evaluate treatment outcomes. Therapeutic community (TC) is a milieu therapy drug treatment utilizing different techniques: family therapy, behavior modification, individual counseling, group experiences and vocational training. TC seeks to assist clients bring their behavior under conscious control. The TC imposes sanctions and grants advancement of status and privileges as a part of the recovery process.

Integrity, a traditional TC, has 170 residential treatment beds for indigent, long term addicts referred by the criminal justice system. 12,000 youth and adults have been treated at the residential facilities in Newark, Berkeley Heights and Secaucus since 1967. The databases at Integrity are used to manage the programs. Intake information, client demographics, personal histories and drug use patterns are coded. Clinical files and outcome information are also coded and entered. Q&A, a flat database program was selected for this purpose because it is easy to use by all Integrity staff for both database and word processing with the IBM PCs. Correspondence, monthly reports and client management are also achieved with the help from the system. For evaluation, the files transferred by modem to a mainframe at Fairleigh Dickinson University Using the SPSS program. Data base process evaluation has a major advantage in that it intrudes minimally into the treatment process.

The major study of treatment process involves the development and application of databases to evaluate the salient client and treatment variables. Approximately 6,000 records are on the computer. The Clinical Files Database records the numbers of hours of group and individual counseling, educational activity, participation in community life, specific behavior modification interventions, family activities, involvement in self help groups, physical recreation and hours spent outside the community. This becomes an enormous case record that can only be managed and evaluated with the help of the computer. These data, in conjunction with the intake data, treatment profiles, and outcomes can be related to each other. In developing these systems, the goal is to find treatment process effects among different groups of abusers. For example, pattern of response in the critical first month of treatment can be evaluated.

Databases have provided a means of managing and evaluating the efficacy of other programs at Integrity. PIE, a court diversion program for juvenile offenders from Essex County who have been arrested for drug or alcohol related offenses (most for selling, rather than using substances) operated by Integrity. The database management system was used to evaluate the program.

Method: Adolescent clients (12 to 18) and their parent(s) are required to attend an assessment and four group sessions designed "prevent" drug/alcohol use and further arrests, "intervene" with youth who have drug/alcohol problems, and "educate" youth and their parents on the dangers drugs and alcohol and the process of recovery from addiction.

Clients: PIE processed 1310 referrals between July 1st. 1988 and June 30th, 1990. clients were Black (84%), male (80%), from Newark (60%), and between 16 and 18 years of age (80%), referred for distribution of cocaine (75%). 38% were first arrest and 62% had more than one arrest; 116 suburban Whites (131 Whites in all) and 80 Hispanics were also referred to the program.

Results: The clients and parents who participated reported satisfaction with the program. 90% reported no further arrests after the program. The program is successful for clients who complete the program. 34% of clients completed complied with the program. The study discovered that those who did not comply can be broken into two groups, non participants (43%) and drop outs (27%). 43% of those referred could not be contacted by the staff since the phone number and address information were not accurate. Staff are working to improve contact methods.

Information Resources

Computerized Information and Referral Systems for the Small Social Service Agency

Charles Auerbach, DSW, Wurzweiler School of Social Work, Yeshiva Univ. 183 & Amsterdam Ave., New York, NY 10033

With the rapid decrease in the cost of computers, coupled with the increase in speed, it is not possible for the small social service agency to have a computerized information and referral system.

How a person is linked to a service can be as important as the service itself. The seekers of service expect that they will be connected to a service which will alleviate their stress. To enhance service delivery, a computerized information and referral system can be utilized.

The Health and Welfare Council, Bergen NJ, developed a standardized information and referral system which has not been in use for three years. The computerized database

holds information on service agencies in their given locations. This enables pertinent information in the database to be retrieved rapidly. Since agencies provide many different types of services, it was necessary to use a classification system to organize the agencies by their multiple fields of service. The three year evolution of the database and the user interface for retrieving and storing information will be discussed.

Bridging the Gap Between Information Technology and Human Services

Patricia Briggs, Consultant in Human Services Evaluation, Human Services Computing Pty. Ltd.

Paul Kindler, Senior Lecturer, Information Systems Department, Swinburne Institute of Technology, Victoria, Australia.

Professor Norman Smith, Dean of Faculty of Social Work, University of Queensland, Australia

The requirements for management systems in human services is conceptually little different from that of many other programs or industry sectors. Yet numerous attempts to develop effective management information systems for casework services and programs have been unsuccessful. There is ready recognition of the potential for the utilisation of information technology but little awareness of the pitfalls inherent in its implementation.

This paper analyses the factors which can enhance system development and those which mitigate against successful implementation. It highlights the way in which critical determinants of success are a function of the quality, extent and nature of the collaboration between the agency practitioners, managers at all levels and system designers. The technical expertise of the information technology specialist contracted to develop the system becomes less important. The experience gained from a pilot project is drawn on to identify critical points which can lead to failure.

Features of systems developed will be illustrated.

Automatic Social Security Advice

Philip Boyd, Ferret Information Systems Ltd., Cheslyn Lodge, Station Street, Cheslyn Hay, WS6 7EG, England.

This paper will seek to present an overview of programs which offer advice to users about their client's entitlement to Social Security Benefits in the U.K. and will, to some extent, look to their future.

It will examine their history, structure, development and use as advice tools and training tools and will address itself to the question "Is the assessment of Welfare Benefits a thing which clients could/should do for themselves?

There will be a discussion of the application of rule based expert system shells to what is essentially rule based law, and why two such attempts failed to produce the desired results.

Also covered will be the problems of verification and testing benefits programs, the problems of matching the illogical, self–referencing structure of U.K. law to logical code and maintaining the links between the two in a climate of rapid change.

Advice Software for Welfare Benefits to be demonstrated.

- Maximiser Plus an holistic/selective U.K. benefits assessment program.
- Helper PC Plus a quick but accurate program to calculate U.K. means–tested benefits.
- In–Work PC Plus a program for advising those about to return to full–time work in the U.K.
- Helper Plus a hand–held version of Helper PC.
- In–Work Helper, a hand–held version of In–Work PC Plus.

Computer–based Technique for Displaying and Analyzing Demographic and Health Data

Leonard. S. Rodberg, Queens College/CUNY, Flushing, N.Y.

A user–friendly, computer–based tool for microcomputers has been developed to allow the selection, analysis, an presentation of social, economic, and health data for communities in New York City. The technique is, however, applicable to any community for which data are available at a subdivision level, such as zipcode, census tract, or neighborhood.

This software allows persons with little or no computer experience to utilize census data, vital statistics an other demographic and health data. These data can be displayed for specific geographic areas, e.g., zipcodes, or particular data elements can be selected and analyzed using spreadsheets, graphics programs, statistics packages and mapping programs.

This software has been duplicated to local, State, and Federal information on socio–economic and health conditions in New York City. The software will be demonstrated using these data, but its application to other areas will be discussed.

Telecommunications

How I overcame my fears of computer telecommunication and entered the global networks

David Antebi, Associate Professor, School of Social Work, Rutgers University, 536 George St., POB 5058, New Brunswick, NJ 08903

This presentation will highlight the use of alternative electronic information resources to inform social action efforts focused on peace activities in relation to Central America and specifically Nicaragua as a way to illustrate the use of telecommunication.

This presentation will also examine how to use selective specialized networks, conferences, electronic mail and bulletin boards to illustrate the possibilities and use by social workers. The practice illustration used will highlight the potentiality and opportunities in joining the global community of telecommunication and uniting with other social workers of the world.

Social Work educators, practitioners and researchers are faced with complex problems requiring up to date information to perform their work, such as information on

aids, housing the homeless, domestic violence, addictions and including computer use in social work.

To get an article published, it takes almost a year or longer form the time of review. Major sponsors of conferences take several years in the planning and execution before new knowledge in the field is shared with the professional community.

Meeting with key people in the field either at a conference or by phone can be costly and difficult to achieve due to the multiple demands on people. In turn, trying to communicate with a large interested audience on the findings of your research or practice can be time consuming, particularly if you are trying to find and send to a mailing list and then paying for the cost of duplication and mailing the publication. Let alone if it is accepted for publication in the first place due to the competition in getting published these days. Increasingly social workers faced with the technology boom are beginning to feel the pressure and become more literate in the varied use of the computer. Yet the predominant use is with word processors. Many of us are computer shy and have not ventured into using electronic networks.

Increasingly telecommunication data networks are proliferating every day. It is not uncommon to find extensive professional and technical networks communicating with one another and share information through e–mail, conferences and user directories. These networks and affiliated networks are connected to each other at the national as well as world–wide levels. For those concerned about peace, environment, conflict resolution, health and welfare public interest areas there are specialized alternative sources of information to inform those efforts.

For example CUSSNet, Computer Use in Social Services Network, has established local bulletin boards, local and international mail, and file transfer, conferencing and repositories of electronically available information. It builds on a network of about 6000 local bulletin boards around the world which automatically exchange information.

Increasingly we are in a computer–to–computer world of communication. While this has been more characteristic of the business and scientific community social work is beginning to establish its own networks. While writing letters, calling people by telephone and meeting at conferences are typical ways we communicate with each other telecommunication is the new wave that puts us in touch with people, places and sources of information globally using the computer and a modem in our home or office.

As a result of attending this presentation, participants will be helped to:

- Overcome fears about using electronic communication
- Gain a basic introductory understanding of the world of telecommunication from a personal perspective
- Learn about various technical documentary information of line and resources available from the university to help with specific problems
- Become familiar with various electronic communication instrumentalities
- Learn how to network with others through the use of electronic conferencing, bulletin boards, and e–mail
- Learn about selected alternative professional and technical electronically available information repositories
- Learn how to expand communicating with others on the local and global level.

Women's Global Communications

Ramona R. Rush, Department of Communication, 248 Grehan Building, University of Kentucky, Lexington, KY 40506–0042 bitnet, rrrush@ukcc.uky.edu.

How women are globally linked (or how they could be) is a crucial topic for the wholeness of human discussion as we approach the 21st Century. What is of concern here is the communication ecology of more than half the world's population in relation to the other proportion. Ramona Rush calls women "the minoritized majority;" they historically have provided what Elise Boulding calls the underside of history" –the hidden support of human society. Much of the "silence"and lack of acknowledgement about women's important roles in world society have occurred because women did not and still do not have access to and participation in major communication channels and content in the same way that men do. In the 1990's, men (mostly white and male) largely control and own the means by which to produce, store, and distribution information.

Yet, this most recent communications revolution has a different kind of hope for linking all of humanity, certainly for those who could use appropriate communication and information for basic survival needs and formal educational enhancement. Hi–tech communications (e.g., combining computer communication software with communication satellites) have incredible capabilities for the accurate and nearly instantaneous communication of information.

Although such global connections have primarily been used for commercial and financial purposes, public uses for delivery of social services through these facilities are being recognized and utilized. Hi–tech communication, such as electronic mail and telecommunications conferencing, can efficiently and globally link women. Women can also continue to take advantage of low–tech communications (such as newsletters) which have kept many women from nearly complete isolation from one group to another. The use of both hi–tech and lo–tech communications is one of the promising areas for social change.

Graduate students at the University of Kentucky have been researching this immense and immensely important topic during Spring Semester, 1991, under the direction of Dr. Ramona R. Rush. They will be examining the topic from a global, international/intercultural communication angle as well as from global issues of concern to women. They will produce case studies on such issues as the status and roles of women in international communication, women and development, female celebrity portrayals and images, women and religious communication, changes in family communications, women in academic communications, indigenous women's communication, and others. A comprehensive women's global communications bibliography will also be prepared.

The purpose of this group presentation, then is to provide a forum (panel, roundtable) for not only these graduate students to present their research on the topic but to

invite those interested in the topic to join the session either as presenters of research with the Kentucky group or as discussants/ respondents/observers about this topic.

Sonett–A Social Workers Telecommunication Network as Part of the German Research Net

Professor Bernard Kolleck, Fachhochschule fur Sozialarbeit und Sozialpadagogik Berlin, Karl–Schrader–Strassse 6, 1000 Berlin 30, Germany.

SONETT is a pioneer project to use telecommunication in social work. The first step links twelve institutions via the German research net, a facility provided at reduced charges by the German mail and the German Research Association. SONETT is sponsored by the Ministry for Research and Technology.

The participants are equipped with the hardware and software necessary for the performance of electronic mail, file transfer and dialogue. A central computer is placed in Berlin which supplies mailing and database services.

Starting in October 1990 and during a period of two years, the participants develop and report their application of the network. The exchange of messages, data files and computer programs on a national and international level is practiced, as well as the use of external databases. Brochures and lectures are prepared and databases of the participants are made accessible for external users. The databases cover the fields of literature, social institutions, resources for the handicapped, etcetera. The possibility to communicate in a local area, including direct client access, is investigated.

Special care is taken to avoid ineffective use, as, for example, information overflow through messages of minimal content. The group meets once in 3–6 months.

SONETT is intended to prepare the ground for a wider use of telecommunication on a local, national and international level.

MICA–NET A national online network for professionals and consumers/advocates of clients struggling with substance abuse and mental illness.

Marvin H. Berman, Ph.D. MICARE Mental Illness Chemical Abuse Research and Education 1814 Beech Avenue Melrose Park,PA 19126–1011

The presentation will comprise a general overview of the need for integrated treatment services for dually diagnosed clients and the problems of training and supervision which such service delivery models present. The MICA–Net was created as a response to the expressed need among many mental health and social service professionals who are working with MICA clients and want to gain insight into the needs of this population through a process of interdisciplinary dialog. Two projects which address this growing need for training and dialog are the MICA/CR Training Program and MICA–Net.

The MICA/CR Training is a one–day staff and supervisory training program using interactive video technology to provide an introduction to dual diagnoses issues and specific intervention skills training for front line staff workers who serve MICA clients in community residential settings. MICA–Net is a national online information network for professionals to access other professionals, researchers and consumer groups for support, program development and administration consultation, staff training and supervisory ideas and resources, and specialized online seminars conducted by recognized leaders in the field on topics relevant to MICA–Net users.

The computer network or bulletin board system is a vehicle which can afford people with limited time and funds, immediate access to a tremendous range of resources and people with similar interests. The presentation will include a live demonstration for participants of the various components of the MICA–Net especially its electronic mail and information library and discussion features. In addition, we will use the demonstration session time to create new discussion areas that will reflect the session participants' needs and interests.

Participants will learn:

- a working understanding of the MICA–Net online information service.
- Identifying the differences between traditional electronic bulletin boards graphical user interface (GUI) information networking services
- a conceptual framework for improving service delivery for MICA clients.

Human Service Areas

Aging

The Maturation of a Multiagency Computerization Effort for Alzheimer's Respite Services.

J. Looman and Gary T. Deimling. The Benjamin Rose Institute, 500 Hanna Bldg., 1422 Euclid Ave, Cleveland, Ohio 44115

From mid–1988 through mid–1990 seven Northeast Ohio nonprofit agencies collaborated in an effort to develop a computerized multiagency database of users of respite services for Alzheimer's patients. This project (SISTERS: Shared Information System Technology to Evaluate Respite Services) grew out of a previous PC–based information system at The Benjamin Rose Institute. Project accomplishments included: improving the design and delivery of community respite services through use of the multiagency database; collaborating in the creation of standardized forms and documentation via PC–based information systems; providing hardware, software, and training for data entry and data analysis to program staff; and creating an ongoing forum for exchange of ideas and experience as well as mutual support which extends beyond the funded project period. Since the end of the funding period in mid–1990, the consortium of respite programs has continued via regularly scheduled meetings and expanded data sharing.

The integrated multiagency database which evolved during the project included four compatible subsystems: Inquiry/Intake, Assessment, Service Tracking, and Client Satisfaction with Services. During the post–project period these subsystems underwent further revision based on changes in programs, reporting requirements, and administrator needs resulting from their increased sophistication and understanding of the technology. While the revised information system contains the same four compatible subsystems, some customization for each respite program and streamlining has evolved which has not impaired the sharing of data across programs. This computerization effort resulted in both positive and negative outcomes for participating programs. Positive outcomes include: developing a model of service coordination for our community; creating a support network for respite programs; increasing awareness of what computerization efforts involve and can provide; standardizing of the assessment process thereby improving the value of assessment for both clinical and analytical purposes; creating the multiagency database available for use by all participating programs for planning, marketing, and reporting purposes; and a guided and supported entre into the computer world for small nonprofit programs. Negative aspects include: extensive amounts of time required for system development, staffing difficulties in terms of time available for data entry and re–training issues, compatibility with other hardware later acquired by agencies, lower cost effectiveness in very small programs, required inclusion of data not desired by each program, and the inherent conflict between quantitative data for administrative needs and qualitative data for clinical needs.

The post–project period has seen the voluntary expansion of the multiagency database with no external funds to include all clients served by the respite programs regardless of mental status. One of the original project aims was to make each program technologically self–sufficient. In most cases this has been accomplished and the use of computers has expanded beyond project data gathering to include word processing, spreadsheet applications, and other research and statistical applications.

Children and Families

Linking Service Providers with their Government Funding Agency through PC's and Modems

Donald Fitch, Executive Director, Campbell Service Group, 1110 Cove Road, Mamaroneck, NY 10543.

Noah Geberer, Programmer, 1110 Cove Road, Mamaroneck, NY 10543.

In the nonprofit world, linking existing PC's through modems creates an easy and inexpensive communications network which saves time, money and builds teamwork.

Application Examples Include:

The Philadelphia Comprehensive Child Welfare Reporting System linking six departments in the City of Philadelphia, Department of Human Services with the six largest providers of foster care to provide:

- Utilization Report:
  - provides finance and contract departments with a mechanism for monitoring weekly compliance and utilization of funds by service category and in total
- Vacancy Report:
  - provides caseworkers with immediate access to bed availability and rates
  - provides the cornerstone for establishment of a centralized placement unit
- New Resource Report
  - alerts DHS caseworkers to new services within agencies' catchment area
  - expands the DHS/CYD Neighborhood Resource & Referral System

The New York Drug and Alcohol Abuse Linkage and Tracking System which links PC's at six substance abuse treatment modality locations to a central PC with the major state funding agency. This system's goals are:

- to establish an integrated network of both public and private agencies to promote collaboration.
- To assist policy and planning departments in drug and alcohol abuse treatment, mental health, social services and education to improve communications, problem solve, prioritize issues, pool information and resources and promote intragency teamwork.
- To establish a technical/information management linkage at participating government agencies and providers.
- Provide "real world" quantitative data about the prevalence and incidence of medical, legal, social, mental, educational, occupational, etc. client needs.
- To ascertain correlations of the clients' rate of activity/progress/outcome, with the wide variety client characteristics and treatment variables; type, duration, frequency, etc.
- to create an intragency research committee to initiate and guide new research studies and to promote the dissemination of findings through seminars, articles, symposiums, etc.

Health and Hospitals

SWdB: A Data Base Management Information System for Hospital Social Work Directors

Paul R. Raffoul, Ph.D., Associate Professor and Director, Computer Learning Center, Graduate School of Social Work, University of Houston, Houston, TX 77204–4496

Jeffrey T. Burns, MSW, Vocational Rehabilitation Counselor, TX Rehabilitation Commission, Houston, TX.

This presentation will demonstrate the use of this automated database management system that was specifically developed for hospital social workers to include all of the administrative requirements for a hospital social work department's quality assurance requirements. It's ease of use and automated report capabilities make this program unique and useful particularly for social workers with little computer training.

The Design of a Computerized Case Management System for ALC Patients

Charles Auerbach, DSW, Wurzweiler School of Social Work, Yeshiva Univ. 183 & Amsterdam Ave., New York, NY 10033

Diane Ambrose, CSW, Senior Social Worker, Charles Cohen, ACSW, Assistant to the Director, Elizabeth Quitkin, ACSW, Assistant Director LIJ Division, and Barry Rock, DSW, Director, Department of Social Work Services LIJ.

With the advent of prospective payment systems and the resulting pressures for shorter lengths–of–stay, discharge planning has come to the forefront of hospital–based health care. In response to these pressures, the authors will present the efforts of the Department of Social Work Services of a large, multi–campus, urban teaching medical center to design, implement and evaluate a microcomputer–based case–tracking system for alternate level of care patients.

The presentation will focus primarily on the design phase and technical specifications of the system. Specifically, this will include: a discussion of the database design in Foxpro, input and reporting screens, as well as end user capabilities for customization of tables and ad–hoc reporting. In addition, preliminary findings based on one year of data will be utilized to identify factors related to lengthy ALC. These findings will be the basis for an early intervention profile and a discussion regarding policy implications. Finally, the actual program will be demonstrated.

Using Hypertext Systems in Human Services

Michael A. King, D.S.W. St. Francis Hospital, Roslyn, New York, 11576 (516) 562–6044

This paper will discuss what hypertext is, how it functions and how it can be utilized to great advantage in the human services field.

Hypertext offers a unique and efficient software mechanism to facilitate access to many kinds of information quickly and without having to learn a lot of key commands in order to do so. The benefits of software developed with hypertext are:

- the ability to provide desired knowledge to users
- the ease of use (as little as knowing the 4 arrow keys)
- the reduced amount of time spent on knowledge acquisition
- the speed with which you can obtain information, go off in any direction and yet be returned to where you left off the individualized access to information (since hypertext is structured in a non–hierarchical manner, information can be accessed based on one's own interest, pace and direction) and still be able to retrace one's steps
- the capacity to attach hypertext to enhance existing software as well as text documents

Hypertext is far greater than a text retrieval system. It allows users to find and utilize the specific information they need without prior knowledge of the subject.

Hypertext will be defined and information provided on some of the different ways it functions that highlight its usefulness. Some of the programs offering hypertext will be briefly described.

Some specific uses that human service agencies could use hypertext for will be discussed:

- to serve as a teaching tool for staff or others
- to organize policy and procedure manuals
- to access community agency resource files
- to maintain bibliographic reference files
- to provide patient/client education to enhance existing software (spreadsheet, database, word processing, etc.)

On a broader basis hypertext can be utilized to develop a database that would be applicable to a wide range of agencies. Such a development would minimize the cost to any one agency. Costs in general would vary depending on the size and complexity of the information being incorporated into a hypertext system. Transparencies will be used to visualize hypertext.

Development of an Information System for Hospital Social Work Departments in Israel

Miriam Cohen, Researcher, JDC Bookdale Institute of Gerontology and Adult Human Development in Israel, POB 13087, Jerusalem 91130

Gail Auslander, Paul Baerwald, School of Social Work, The Hebrew University, Jerusalem, Israel

In order to meet accountability demands, ensure quality of care, aid management functions, and advance practice knowledge, hospital social work departments in Israel recognize the need to implement information systems. This paper describes a joint endeavor of the social work departments of the major health care providers in Israel to develop a core unified system for national implementation. The system is geared to meet information needs of workers at all levels, from national directors to direct service practitioners. The ongoing reporting ensures a basic level of professional recording, and provides social work departments with essential, timely and reliable information about their clients and the psychosocial problems treated, interventions performed, interagency referrals, and selected treatment outcomes. Patients in need of after care are a primary target population of social work services in general hospitals, and the system gives special attention to their needs and to impediments encountered in arranging the required care.

Managers and practitioners have participated actively in all stages of system development. To respond to local needs, variations of the core system were implemented as pilot programs at four hospitals around the country. The development process has been accompanied by assessment of worker attitudes, of recording behavior, and of reliability in coding items requiring professional judgment. Information can be used by workers at different levels in varying ways, but the translation of data into guidelines for action is generally not immediately self evident. The paper will analyze potential uses of data in the unique context of hospital social work, and discuss strategies for presenting the data to users to promote effective utilization.

Criminal Justice

Computer Applications in the Probation Service in England

David Colombi, Research and Information Officer, West Sussex Probation Service, 61 North Street, Chichester, West Sussex, PO19 1NB. England.

The presentation explores themes about the development of computer applications in the Probation Service in England and demonstrates computer software, development for professional and client use.

The themes to be explored are:

- Ways in which development of information technology and information strategies have been shaped by central government requirements and control.
- Issue about and progress in developing systems and software that focus on needs of local services, operational requirements of staff and needs of clients.

The demonstration of software will allow participants to try out some of a range of eight programs that have been developed by the presenter for use by the Probation Service., and focus on operational needs. Demonstration copies of software will be available on a "Shareware" basis.

The presenter is a former Probation Officer now working as a Research and Information Officer for West Sussex Probation Service and undertaking a Doctorate thesis at Southampton University on this topic.

Disabilities

The Impact of Computer Technology on Persons with Disabilities: Their Perspective

Randolph J. Tighe, Director of Research, The Vocational and Rehabilitation Research Institute, Calgary, Alberta

The relatively recent development and availability of low–cost computer technology will perhaps have one of its most significant impacts on the lives of persons with disabilities. Persons with severe sensory or physical impairments may use computer technology for environmental control, communication (in both written and oral forms), mobility, work, etc. Through the use of this technology an individual with no sight can read independently, a person without motor function below the neck can write, and a person without access to spoken channels of communication can communicate with others, individually or in a group and across long distances or in person.

Research on computer technology and disability has been primarily restricted to looking at the reduction or replacement of disabilities (i.e., viewing the computer as an instrument to accomplish specific tasks). Research should not only focus on evaluating the 'instrumental computer' but it should also assess the impact that the technology has made on the individual as a person.

This paper will provide preliminary analysis of data collected in a research project designed to assess the impact of computer–based technology on people with disabilities from the perspective of those who use it. Data were collected with the use of survey methods followed by in–depth interviews. Of particular interest was whether persons with disabilities who use computer technology view it as a tool of empowerment.

With research of this nature, it is hoped that a greater recognition of the potential benefits of computer technology will be achieved within human service and government sectors. If this is the case, the 90's should be a decade where individuals who require computer–based technology will have better access to information about it and to granting systems enabling its purchase.

Mental Health

Psychminder: Low Cost, User Friendly Integration of Mental Health Information systems

Robert M. Kolodner, M.D., Assistant Professor of Psychiatry, University of Psychiatry, Dallas VAMC, Director, Laboratory for Clinical Computing, 4500 S. Lancaster Rd. (116A), Dallas, TX 75216

Sylvia Hougland, MPA, Associate Director, Laboratory for Clinical Computing, Dallas, VAMC, Clinical Faculty Associate, UTSWMCD, 4500 S. Lancaster Rd., Dallas, TX 75216

PsychMINDer is a computer based support system for mental health workers. PsychMINDer integrates clinical data stored on 3 separate computer systems by downloading information from 3 hospital based systems to one microcomputer. The purpose of the software is to improve quality of care given to patients by providing immediately available, integrated patient data (pharmacy, lab, and demographics).

Initially supported by a Hogg Foundation for Mental Health grant, the Dallas VA Lab for Clinical Computing developed a software system built on the VA's public domain Decentralized Hospital Information System (DHCP), and was installed in a large public hospital's mental health clinic (MHC). Like many other underfunded MHCs, they did not have patient information that was readily available to clinicians. The hospital has separate computers for pharmacy, laboratory, and patient information that are not coordinated.

Separate non integrated systems are a common problem for organizations who are often forced, because of historic circumstances and budget constraints to purchase systems separately. Although a substantial amount of information exists in electronic form, the mental health worker needed to log onto different systems, could not gain access at needed times, and had to use separate terminals for each function. This diverted a substantial amount of time from patient care to retrieval activities. In addition information on patients from out site clinics, night admissions, and emergencies may not be accessible when needed.

The VA's DHCP system was used to integrate the patient information stored on the separate hospital computers software systems. The linking system, written in MUMPS was installed on a 80386 based microcomputer (loaned by Hewlett Packard) located in the Outpatient Psychiatry Clinic. The VA DHCP was chosen because it was well developed, updated frequently, is in the public domain and low cost and has a clinical emphasis. The microcomputer runs in multi user mode and can support over 20 users

at one time. PsychMINDer also allows ad hoc queries on aggregate patient data. A search and reporting function is built into the system. Downloading is done in "non peak" hours and minimizes adverse impact on the existing system.

Clinical workers, who have a secure access and verify code, log on each morning or throughout the day to get a complete list of patient information about any patient. Patient management, laboratory results, and pharmacy information from the non VA systems are available by a simple, user friendly method that can be taught to mental health workers in less than two hours. Information can be retrieved in a variety of formats, e.g. number of prescriptions, diagnoses, refills, labs, etc.

This system may have implications for mental health clinicians: 1) it provides a cost effective method for providing patient information to the worker without major new purchases 2) workers can be trained in 2 hours because the VA system is simple to learn 3) it may increase quality of care because it reduces chart unavailability 4) it provides access to patient information by workers who may not be at the main site or work within normal hours 5) it increases time available for patient care by reducing time spent in retrieval.

Computer Aided Interviewing in Psychiatric Social Work

Mike Ferriter, Rampton Hospital, Retford, Nottinghamshire, DN22 OPD. England.

This paper reviews the results of a two year research project that compared three methods of interviewing patients' parents to gain information for psychiatric social history reports. The methods were by unstructured human interviewing, structured human interviewing (multiple choice questionnaire), and the same questionnaire delivered by computer.

The research was carried out at Rampton Special Hospital, United Kingdom, where the author is a Senior Social Worker and the project was the basis of a post–graduate degree thesis at University College, Swansea.

The results of the research showed that structured interviewing gained significantly more information than the traditional unstructured approach. The results also showed that computer aided interviewing seemed to produce more reliable information than human interviewing. In short, subjects seemed to be more candid on sensitive issues when interviewed by a computer than when interviewed by a social worker.

The paper will link these findings with earlier research in computer aided interviewing in a psychiatric setting. It will examine why people might find it easier to talk to a computer than to talk to another human being.

Problems and strategies of measuring reliability will be discussed, as well as the technical problems of writing such a computer system. The system itself will be available for demonstration.

The possibilities of such a system will be discussed. There is an enormous research potential in a database containing social history information that can be linked within a relational data structure to another database containing clinical data. There is also interesting work being carried out in the mainstream of the computer industry in the United Kingdom on possible links between large scale relational databases and artificial intelligence concepts. These include the use of expert systems to facilitate the process of interrogating complex databases and also the possibility of writing PROLOG type statements within SQL linking, linguistically, relational database architecture with artificial intelligence.

Expert System Development in Ill–structured Domains: The Application of Artificial Intelligence Technology to Diagnosis and Assessment in the Human Services

Joe Ravetz, Department of Public Policy, Faculty of Cultural, Legal and Social Studies, Lancashire Polytechnic, Preston, PR1 2TQ. England.

Expert systems supporting decision making processes are believed to be of value in a range of professional endeavours. The impact of the technology on the human services is minimal in comparison with those professional domains conspicuous by their well–structured and commonly accepted knowledge bases.

The paper is an examination of the problems and promise of knowledge creation and diagnostic system development, and a review of the importance of systematic knowledge acquisition techniques in the development of expert diagnostic systems. It is the contention of the paper that the expertise found in welfare agencies can be exploited to provide a range of cheaply produced expert system software, that would be of benefit to practitioners in the Human Services.

The first section of the paper is a description of the components that define the attributes of an expert system. Under the title Knowledge Creation and Diagnostic System Development the contention is that the knowledge base of a system is never complete; that disciplines vary in terms of what constitutes acceptable levels of proof and measurement of certainty; that the limitations intrinsic to an expert system are not limitations of design, but are limitations demonstrating conceptual and theoretical limits in the simulation of dynamic expertise; and finally that an acceptance of the limitations of the transfer of knowledge from expert to expert system stimulates the creative process. Headings under this section:

- Rule Based Systems (PROLOG examples).
- Distinction between Propositional and Tacit Knowledge.
- The Problem of Tacit Knowledge and the Development of an Expert System.
- Subjectivity of the Knowledge Base is an ill–structured domain.
- Knowledge Validity.

The second section of the paper is an examination of the process of systematic knowledge acquisition in the development of Expert Systems in ill–structured domains. The contention is that the elicitation of knowledge from an expert is a complex systematic creative process. The supposition is sustained that the greater the uncertainty of the knowledge base and ill–structured nature of a domain, the more difficult is the task of knowledge acquisition as an integral feature of expert system design and the more iter-

ative is the process of design and implementation. Headings under this section:

- The nature of expertise and choice of expert
- Practical problems of knowledge acquisition
- The necessity of good communication skills
- A case study of the communication between the expert and system designer in the development of an expert system prototype.

Welfare

Improving Medicaid Processing Through the Use of Personal Computers

Gordon G. Ragland, Jr., Charlotte Department of Social Services, P.O. Drawer 440, Charlotte Court House, VA 23923

The advantages of automation are well documented especially when the power of computers are available at the line level. The Charlotte Department of Social Services located in rural Southside Virginia has developed computer applications to put computer power in the hands of individual Medicaid workers.

Virginia's Medicaid program is administered by two separate departments of state government who have two different mainframe computer systems. The Department of Medical Assistance Services has responsibility for the approval of medical providers and the issuance of all Medicaid payments and uses an IBM system. The Department of Social Services has responsibility for individual eligibility determination and utilizes an UNISYS system.

To enroll an individual in the program, the Medicaid caseworker must first access the UNISYS program in social services, transit through a translator program, and then access the Medicaid database on the IBM mainframe. The mainframe provides client tracking, issuance of Medicaid cards to recipients, and the issuance of payments to providers. However, it does not provide any assistance to the caseworker in determining eligibility.

The Medicaid program has grown in complexity as the Congress has broadened coverage to include more categories of poor people. This in turn has placed a greater burden on the Medicaid caseworker who must now contend with 603 pages of regulations and 11 different eligibility groupings as well as a burgeoning caseload. These were the factors motivating the Charlotte Department of Social Services to explore PC applications to provide relief to Medicaid staff and increase the speed of case processing.

In each Medicaid case the caseworker must determine the category of eligibility and then complete a worksheet to calculate the amount of countable income and resources. Each category has different rules as to what income is disregarded and what level of income constitutes eligibility. Each worksheet requires up to 35 calculations.

A spreadsheet program is the ideal solution to this need for processing numbers. Utilizing Lotus 1,2,3 the agency has developed each of the Medicaid worksheets as a Lotus file which will automatically perform all of the math required as well as compare the results to the appropriate standard and generate a message as to the client's eligibility or ineligibility. In addition the automatic executing macro capability in Lotus provides a mechanism for having staff only enter data in required fields and minimizes computer training time.

This paper will review the variety of Medicaid case situations and demonstrate the development of a spread sheet template to automate the eligibility calculations.

Social Service

Desktop Expert Systems: Applications for Social Services

Michael J. Kelly, PhD, and William St. Clair, MSW, School of Social Work, U. of Missouri–Columbia, 714 Clark Hall, Columbia, MO 65211

This paper discusses microcomputer 'knowledge based' systems applications for social service programs developed in a commercial expert system shell. It begins with a brief discussion of expert systems including the ethical problems and problems of knowledge acquisition, moves to the development of knowledge based applications, and concludes with a discussion of issues related to applications development by front line personnel and direct information access by clients.

Expert systems are "intelligent" computer programs that answer questions or provide information by employing encoded knowledge and inference procedures to solve difficult problems. Mimicking the decision making process of human experts, these programs produce recommendations by manipulating sets of stored facts, rules, and the less exact guiding principals often called "practice wisdom." Expert systems are primarily recognized for several large, mainframe based business and medical applications examples such as MYCIN, the infectious disease expert system. However, the field of "knowledge processing" contains several outstanding applications for the microcomputer developed by users and applied in a limited domain of information. Currently 40,000 expert systems are said to be under development in the public and private sectors and a recent survey indicated that many are smaller, user developed examples.

Originally developed for single applications and running on mainframe computers, evolution has brought the expert system to the desktop. Learning commercially available, inexpensive, expert system development software provides staff at all levels with a tool to enhance their practice. The range of knowledge based applications that can be developed for desktop computers is very broad. Four examples will be discussed: (1) an automated policy decision system; (2) a training system for case decision making; (3) a system that automates child welfare risk assessment; and (4) an expert system which interacts with an electronic database for information and referral applications.

The expert system may prove to be as useful to organizations as the word processing and spreadsheet programs. Empowerment of staff and clients is a potential outcome of their use. Staff are empowered to develop automated tools that help with the record keeping and direct service aspects of their work. Direct client information system interaction is the likely future of expert system driven I&R databases and represent client empowerment.

Professional or Technician: Computer–based Curriculum and Evaluation for Child Protective Services

Kay M. Stevenson and Patrick Leung, U. of Denver, Graduate School of Social Work, Denver CO 80208.

For the past two years, the University of Denver, Graduate School of Social Work, in conjunction with the Colorado Department of Social Services, has been developing a seven–module, computer–based training (CBT) curriculum to prepare Child Protective Service (CPS) caseworkers to assess and intervene in reported situations of child abuse and neglect. The presenters will describe the process of developing this one–of–a–kind federally–funded project. It has received national attention as a model for both preparing and evaluating the competency of CPS workers. Using the computer authoring package, PHOENIX, this curriculum proceeds in an incremental fashion from knowledge mastery to comprehension and applications.

The technology has proved efficient in providing immediate feedback to trainees and their supervisors and quantitative measurement of competency in beginning knowledge and skills. Perhaps more critically, this application has the capacity to provide standardization of training and evaluation in a public sector service that has long been criticized for its lack of accountability and rigor in training and evaluation.

Implementation of CBT in social services has not been without significant problems and issues. The presenters will discuss significant issues which have arisen in this project and may have relevance to other such endeavors. An evaluation of both objective issues such as cost and adequacy of the technology, as well as subjective concerns such as resistance by personnel to the technology, and ethical issues will be presented.

Strategies for addressing issues will be proposed. Challenges for further consideration will also be raised. These include: (1) the need to develop interactive CBT curricula which have the capacity to train and evaluate complex clinical skills and attitudinal issues; (2) the potential for misuse of CBT as an absolute or sole criterion for evaluation of competency in CPS; and (3) confronting the larger implications of standardized CBT on human service professions. A critical question to be raised is: "Are we advancing a philosophy of professionalism or technical bureaucracy with competency–based CBT training and evaluation?"

Computer Assisted Counseling as a Cooperative Process: Conceptual Structure and Architectural Design

Ronny A. Shtarkshall, Ph.D., Coordinator, M.P.H. Program, The Hebrew University, Hadassah Faculty of Medicine, P.O. Box 1172, Jerusalem, Israel 91010

Ehud Rivlin, M.A., Dept. of Computer Sciences, University of Maryland, College Park;

Katriel Beeri, Ph.D., Dept. of Computer Sciences, The Hebrew University of Jerusalem

The basic concept of counselling as a cooperative process is derived from the Buberian Dialogous Theory of human interaction as applied to education and therapy. The counselor is viewed as an interactive resource rather than as an outside expert.

Counselling in human sexuality, family planning and contraception is ideal for this approach because of the predominance of unique individual situations and personal experience which does not lend itself readily to statistical analysis and generalized solutions.

We set out to design a program that will support counselling in family planning and contraception by raising to the conscious surface considerations, ambiguities, and dilemmas. These will be dealt with interactively between counselor and counseled. The nature of the cooperative process imposed some interesting demands and constraints on the software design.

The following aspects of cooperative counseling in contraception and family planning will be discussed:

- Dialogous process and the role of the counselor as an interactive resource.
- The choice process based on multi dimensional analysis; efficiency, safety, convenience, availability and interactive considerations.
- Raising ambiguities, conflicts and dilemmas to the conscious level.
- The teaching components: the difficulty in separating them from the decision making process
- Demands and constraints imposed on the software designer.

The following architectural solutions will be presented as possible solutions to the needs of cooperative counselling. We will also demonstrate how they are applied in a working prototype of such a program.

- Client controlled decision: a non linear, discontinuous function.
- Controlling the decision making, expert system, process and a knowledge machine through a joint interface.
- Expert interface allowing the introduction of changes and adding local information without interfering with the main program.
- Modular design permitting the addition of other units of similar content areas.
- Evaluation of the program by experts from various fields of experience: a detailed, multi variable approach.

Substance Abuse

Database–For Social Management and Clinical Improvement

David H. Kerr, MA. President. Integrity, Inc. POB 510, Newark, NJ. 07101.

Background and Rules Section

1. Integrity, Inc. is a 22 year old drug and alcohol residential and outpatient treatment program treating over 1,000 clients per year in Newark and Secacus. My interest in computers began in 1981 with two mini computers. Developed unique client management and billing software which could link with shelf database for maximum flexibility and output.

2. Ironclad rules for establishment of an effective database program and clinical management system will be described including at least the following:

- Sell director
- Sell other top staff
- Obtain SIMPLE but powerful software
- Get the best hardware. This does not mean brand names, and it might mean spending less money than you think.
- Typing must be learned by anyone serious about the computer.
- Backups!!!!!!

3. Other Rules

- Learn Basic software–Database; Word processing, report writing, spreadsheet and personal management software.
- Try to know what you want from your system. Once you know what a database will do, this will be easier. This is an evolving process.
- Train director first. He/she must use machine every day. Start with calendar work. Suggest Grandview as management software.
- Regular training must include actual applications.

Clinical and program management of a $6 million social service agency.

1. Will describe the creation of the client master or "mother" file–turnkey or shelf system. This file is all demographics.

2. Will describe the creation of the client clinical file, unique to each department or funding source.

- this file keeps track of quantitative measures of treatment outcomes, i.e., group hours, individual counseling hours, educational hours, recreation hours," other TC hours", "program down time" GED hours, "morning meeting hours", etc.
- this file keeps track of more qualitative measures of therapeutic involvement i.e., number of times client spoke in group or in individual counseling, number of verbal reprimands client received, number of general meetings client received, number of times client split or left against staff permission, number of times client received a "dump:.

3. The system of data entry and review will be described especially in view of the need for quality control.

4. The system of data output and its use as a clinical and program management tool as well as a tool to improve the quality of date entry will be described.

Employment and Vocation

Interactive Knowledge Base on Vocational Rehabilitation Counselling

Curtis Stoelting, M.Ps., Aldred Neufeldt, Ph.D, Rehabilitation Studies, Walter Dinsdale Centre, University of Calgary, 2500 University Ave. N.W. Calgary, Alberta, Canada T2N 1N4

Bryan Hiebert, Ph.D., Dept. of Educational Psychology, University of Calgary, University of Calgary, 2500 University Ave. N.W., Calgary, Alberta, Canada T2N 1N4

The interest in natural language access to computer databases has developed over the past few years. CHAT (Conversational Hypertext Access by Telecommunications) is a natural language interface system and has been used to instruct people about AIDS. CHAT, now called AskAbout, has yet to be used to instruct Vocational Rehabilitation Counsellors of youth.

In a related project, software called, "A Chat with the Counsellor's Coach" is being developed as a natural language interfaced knowledge base for career counsellors. A compatible knowledge base on Vocational Rehabilitation Counselling is needed by that software system to enlarge its coverage of rehabilitation counselling knowledge to ensure its regular use by counsellors.

"AskAbout Vocational Rehabilitation" will be an interactive computer program. The AskAbout program will run on a DOS based personal computer making it available for the private or institution user. The program itself introduces the user into the topic and then invites the user to ask questions about vocational rehabilitation. The user need not have any special computer skills except ability to type on a keyboard.

The results of the six phases of this project will be presented.

- PHASE 1. The survey of Rehabilitation Counsellors, and the most frequent questions that these counsellors asked.
- PHASE 2. The preparation of answers to each of the questions.
- PHASE 3. Describe the method to list the key words that should be used by the computer to find each paragraph.
- PHASE 4. The method to enter the links into the database.
- PHASE 5. Pre–testing of the program.
- PHASE 6. Results of pilot testing of AskAbout Vocational Rehabilitation Counselling and evaluation.

This presentation will highlight the importance of consumer survey before database development and the importance of product evaluation and testing. "Counsellor's Coach" will be demonstrated.

Human Service Areas–Non Specific

The Clinical/Quality Assurance/Program Evaluation Component of Management Information Systems

George Epstein, Echo Consulting Services, Inc. Main Street, POB 540, Ctr. Conway, NH 03813–0540

This presentation goes beyond the typical focus on demographics, statistics, and billing in social service information systems to address service impact, appropriateness of utilization, service gap determination, staffing levels and discipline mixes, and cost–effectiveness of services. The use of the database in a Decision Support System model will be demonstrated. Examples drawn from system implementations at over 300 agencies including mental health, elder service, children and youth, substance abuse, developmental services, AIDS case management and other providers will be used.

The Use of Computerized Games in Professional Settings

Moshe Sherer, Bob Shapell School of Social Work, Tel–Aviv University, Ramat–Aviv, Tel–Aviv, Israel 69970. Bitnet: SHERER@TAUNIVM

Playing is part of human life, as such it has been used by professionals as a tool in various domains of the social services. The wider use of computers in the field includes today computerized games which are being used by professionals for therapeutic purposes. This presentation will deal with the rationale and development of computerized games in general, and specifically with the results of implementing computerized games with two distinct populations: youth in distress and residents of old age homes.

The first part of our presentation will deal with the development and application of computerized therapeutic simulation game for the purpose of raising the moral level of youth in distress. the effects of the game on the moral development were determined by a moral development measure. The level of moral development of a research group and a control group were measured before and after exposure to the therapeutic game. Positive effects were indicated with the research group.

The second part of our presentation will report preliminary results on the use of various computerized games with residents of old age homes. (This study is about to begin). The computerized games are being used in the project for educational training and entertainment as well as diagnosis of mental and physical disorders of the aged.

Community and Neighborhood Participation

Grass Roots Organizing

Computerised Home Shopping and the Social Services

Dr. Michael Cahill, Senior Lecturer in Social Policy and Administration, Brighton Polytechnic, Department of Community Studies, Falmer, Brighton, BN1 9PH. England.

Computerised home shopping or "teleshopping", schemes for elderly and disabled people have been operated by a small number of local authorities in Britain over the past ten years. Orders are placed on viewdata terminals and delivered to the door. Social Services Departments organised the shopping service, providing manpower and distribution. Now, given the cutbacks in local government expenditure and the culture change in social services and local authorities, this is no longer an option. The private sector has now taken the initiative and one major food retailer offers an integrated teleshopping service to local authorities, for which they pay a set fee per client per week.

For Social Services Departments teleshopping is attractive because it offers the opportunity to re–deploy domiciliary staff (Home Helps) who spend around twenty per cent of their time shopping for clients. Teleshopping means less time spent at the shops and more time with the client.

A number of issues are explored in this paper:

- how have Home Helps responded to the introduction of teleshopping?
- to what extent are elderly and disabled people able to use the systems themselves?
- what are the social and psychological gains and losses of teleshopping for elderly and disabled people?

In the 1980s several home shopping schemes for the wider population were attempted and failed. British Telecom's Prestel, a nation–wide viewdata system never developed the domestic base envisaged for it ten years ago and the British government has no plans to imitate the French Minitel system which has a number of shopping services. Nonetheless, many retail analysts predict that computerised home shopping, financed and operated by the private sector, will become a significant force by the end of the decade. The paper concludes with a discussion of how Social Services Departments and the voluntary sector can work with the private sector in the Development of new shopping and information services on computer based systems.

Citizen Action Groups

CCVC: An Innovation in Successful Coordination

Joseph Junior Scaria, Executive Secretary, Coordination Committee for Vulnerable Children, Nirmala Niketan, College of Social Work, 38, New Marine Lines, Bombay 400 020.

A unique experiment has been going on in Bombay. Almost all voluntary organisations working with street children have got together to implement an integrated area wise plan for street children in the city. This network has grown largely out of its own inner momentum and almost entirely without any help from government. It started with about a dozen organisations getting together and day by day as it has grown it has almost 30 organisations under its umbrella. This is the C C V C (Coordination Committee for Vulnerable Children).

CCVC believe that collectively we can address the problem facing vulnerable children and promote a movement on behalf of vulnerable children/with vulnerable children to secure/assure a better future, focusing attention on rights and realities of children. CCVC also interacts with the state government, municipal corporation, police and the community organisations to develop a framework for policy and programme development for welfare services as well as preventive programmes.

Networking with Rural/Urban Voluntary Organisations

Networking with Rural/Urban voluntary organisations is another area of work we have recently started. The primary objective behind this network is prevention. This is being done in a phased manner with the available information technology in our country.

First Phase

- Mailing of questionnaire requesting participation from the rural voluntary organisation.

- Building up a database of organisations who are willing to collaborate with us in this endeavour.
- Building up a database of children on the streets who are in touch with different organisations.

- Identifying children who have shown interest to go back to their home towns.
- Contacting the voluntary organisations through wireless services of the police department.
- Voluntary Organisations follow up the individual cases with the child/child's family.

Second Phase

Awareness creation about the problems to be faced by immigration to Bombay or any other metropolis through workshops/seminars.

Third Phase

Maintaining.

Self–Help and Mutual Aid

Electronic Community Development: Using High–Tech for Needed Mutual Aid Self–Help

Edward J. Madara, Director, Self Help Clearinghouse, St. Clares Riverside Medical Center, Denville, NJ 07834

Two new areas of community development have been fostered by computerization. The first is the use of a shared computer database to increase both the use and the development of traditional face–to–face self–help community groups. This "MASHnet" software and database is used by over sixteen self–help clearinghouses in the U.S. and Canada. The second area is the development of mutual help exchanges through BBS and other interactive computer information services like CompuServe.

In the case of shared computer databases, the New Jersey Self–Help Clearinghouse in 1981 developed the first computer database for the storage and retrieval of information on self–help groups. The computer made it possible to more easily enter and track group data, as well as more easily print directories. It could also conduct progressively wider geographical searches in order to quickly retrieve information on any one of the thousands of groups throughout the state, as well as hundreds of national or demonstrational model groups outside the state. Computerized call–data recording permits staff to record data on calls directly onto the computer at the time the call is received. Resulting call data may be used to assess group development trends, as well as unmet needs for specific groups in specific locales.

Most important of all, the database is a tool for helping to develop new groups–first, by providing information on model groups that can encourage callers to develop needed local groups, and secondly, by actually registering and networking individuals who are interested in starting that local group or new national network. In the first case, the MASHnet database now provides information on nearly 800 national and model self–help groups dealing with a broad range of addictions, disabilities, illnesses, bereavement, parenting concerns, and other stressful life problems. In the second case, the names of dozens of callers who express an interest in developing a self–help group are added to the computer database, thus helping to develop new local groups or national networks by linking these individuals with subsequent callers. Names of those persons starting new national networks is posted on the national database level and shared with other clearinghouses, helping to promote their development. This work represents unique examples of how "high tech" can be used to promote what Megatrend author John Naisbitt describe as "high touch" community resources.

With regard to telecommunications, there are growing opportunities for mutual aid self–help support in the new "electronic communities." Though BBS and related computer networks, direct exchanges can be made among home computer users, who enter into local BBSs and national networks. There individuals can post messages, sometimes participate in actual online conferences, conduct data searches, provide or obtain lengthy texts from numerous special interest libraries, and network with individuals who share similar interests within a broad range of specialty forums, sections, or "echoes".

An increasing number of home computer accessible networks are allowing people with similar problems to share common concerns, support and information, without the traditional face–to–face meetings that typify self–help groups today. These alternative community networks, largely unrecognized as a distinctive form of the larger mutual aid self–help group movement, offer similar benefits of social support, information, education, and often advocacy. One of the major keys to their development and success is their special ability to reach out to previously unserved populations, to include those who are isolated by geographic location, concern (e.g., having a rare condition or suffering with agoraphobia), or disability (e.g., one that might restrict the person to home or a hospice bed).

Networking plays an initial and key role in the early identification of new or growing health/social problems, the organization of actual mutual aid self–help groups, and the development of more formal health and social service organizations. The seeds of many long–standing health foundations, societies, and agencies dealing with various health and social problems have historically first taken the form of mutual aid self–help groups or networks. These community support services were often created by individuals and/or families as they networked with one another and became aware of both their common needs and their abilities to help one another through group support and action. These small informal networks are often the first to provide support, information, skills sharing, education of professionals, and advocacy. Use of computer networks can therefore promote the more rapid development of such needed new self–help groups and movements.

The expanded use of computer networks will continue to increase the linkage of people, ideas, and concerns, helping more people to access and develop mutual aid self–help communities on local, national and international levels. Most importantly, better understanding and promotion of these networks can accelerate the natural cycle of social and health change–helping people to more readily and quickly network, organize, advocate, and ultimately meet their common needs.

Group and Community Development

Public Access to Telematics in the Netherlands: An Examination of User Involvement in Interactive Media

Dr. Nick Jankowski and Dr. Rene Mendel, Centre for Interactive Media Projects, Stichting Item, Bakkersstrat 10, 1017 CW Amsterdam, The Netherlands.

During the past years interest in telematics has been growing rapidly. An indicator of this is the large number of publications and conferences taking place on both sides of the Atlantic (e.g. Van Delden et. al., 1989, Bouwman and Jankowski 1989; Van Rijk & Williams 1988; Williams et. al., 1989). There have also been numerous efforts to create consumer oriented videotext systems. In the Netherlands alone there have been six major attempts during the past decade; Viditel, Ditzitel, Infodam, Stichting Telematica, Demos, and Videotext Nederland. The French videotext system Minitel has been termed a success for both the large variety of services available–some 6,000–and the profit these services are producing (Kaplan, 1989).

Virtually all of this interest in telematics, however, is focused on commercial applications of the technologies. The potential social uses of telematics, in particular user involvement in the design and implementation processes, seem to capture only marginal attention. This is not because of the unimportance or scarcity of such applications. On the contrary, it can be–and has been–argued that the social uses of telematics constitute an area of pressing concern and need (Qvortrup, 1984; 1986; NOTA, 1989). The potential contributions of new information and communications technologies for increasing citizen awareness and involvement in social, political and cultural concerns is great. This has been, in fact, one of the overriding concerns of a large number of scholars and policy makers (e.g. Jankowski, 1988; Laudon, 1977, De Sola Pool, 1983; 1984). Public access to new information and communication technologies could provide an electronic version of the Hyde Park soapbox, and possibly contribute to citizen awareness of and involvement in public issues and debate.

This paper first outlines the conceptual framework, guiding an on–going research project, the central terms of which are; social experiment, user based innovations, and public access to telematics. The preliminary results from several case studies of social experiments with telematics in the Netherlands are also presented. These studies serve as the basis for considering alternatives to encourage further socially relevant applications of telematics at the local level; tentative thoughts in this area complete the paper. Presentation of the paper will be accompanied by videotape clips showing electronic 'town hall' meetings in Amsterdam employing interactive videotext systems.

Social Issues

Social and Economic Justice

Information Technology and the Human Services: Implications for Social Justice

David Phillips, Department of Sociological Studies, University of Sheffield, Sheffield, S10 2TN, England.

Much has been written about the effects of New Technology on the Human Services and about its possible implications for agencies, practitioners and clients. There is also an important and expanding literature on the implications of New Technology for society as a whole, including much which addresses issues of social justice. Until recently, however, there have been only a few attempts to explore the range of issues specifically concerning the relationship between social justice and the Human Services. This paper sets out to identify several of these issues and to explore some of them in depth.

Social Justice and the Social Work Agency.

Within statutory social work agencies there is often a difference in approach between managers and practitioners towards the notion of social justice. Managers have a responsibility to ensure that resources are distributed fairly between client groups and geographical areas, and equitably to individual clients within these categories. Social workers, on the other hand, have an overriding obligation to their individual clients: to meet their unique needs. Thus, managers have to act within a framework of impersonal, equitable, even–handed justice, whereas social workers are constrained by their professional ethics towards a conception of flexible, individualised and very personal justice.

This is nothing new. What is new, though, is that developments in Information Technology–particularly the combination of client information systems with decision support systems (and to a lesser extent, expert systems) have changed the balance of power between managers and practitioners. Previously, managers had only rudimentary means of control over the activities of practitioners because (a) using manual systems it was virtually impossible effectively to monitor, let alone evaluate, the work of practitioners; and (b) the lack of codification of social work knowledge left practitioners with considerable autonomy anyway. Now, and increasingly in the future, the balance of power is tipping towards agency management, and it is increasingly likely that "impersonal" justice will prevail and that social work will become more standardised.

Social Justice and the Practice of Social Work.

New Technology itself has the potential to be used in ways which are either liberating or coercive. The power it bestows upon practitioners can dramatically affect the worker–client relationship e.g. via client tracking (using either software or smart cards) or through electronic tagging. Conversely, practitioners can enable clients to utilise New Technology to enhance the quality of their lives.

Social Justice and Client Empowerment.

This is the most pressing issue of all. The poorest sections of society are being frozen out of the more benign aspects of New Technology by their very poverty and powerlessness. It is imperative that this situation be remedied.

Social workers have it in their power to help in achieving this goal.

A Social–Epidemiological Five Year Cohort Study of Homeless Families: A Public/Private Joint Venture Policy Analysis Utilizing Advanced Applied Computer Technology

John Stretch, MSW, MBA, Ph.D., Professor Social Policy, St. Louis University, 211 North Grand Avenue, St. Louis, MO 63108

Larry Kreuger, MA, MSW, Ph.D., Associate Professor of Social Research and Computer Management, University of Missouri, Columbia

There are significant data lacks to guide current and developing social policy initiatives to effectively and efficiently ameliorate the multiple and complex problems associated with homelessness in the United State in the 1990s. Concomitantly, empirical support is required to demonstrate the utility of and to justify the resources committed to public/private partnerships designed at the local level to engage the community in addressing the growing numbers and multiple needs of the homeless.

The research reported in this paper was computer driven and designed to help fill this gap for both policy relevant data and for continued justification for resource allocations to support public/private local initiatives to assist the growing numbers of homeless through community based networked programs.

Discussed is the creative use of advanced computer technology in a social, epidemiological five year cohort study of homeless families modeled upon a public/private joint venture partnership. Principal method supported by computer technology was a social epidemiological cross sectional analyses of original field interviews and secondary data. Computerized shelter records, Missouri AFDC and Food Stamps, Employment Security wages and contributions and City of St. Louis and St. Louis County Housing Authority Data were accessed by a specially tailored computer protocol.

Eight hundred and seventy five cross walked multiple data files on casemanaged families served between 1983 and 1987 were accessed; 201 families were field interviewed and a special computer program developed to link field data and existing data files in order to determine the impact of public/private services on their current functioning. Of particular policy and programmatic interest was current needs met; needs remaining; whether families recycled into homelessness; and how well families functioned currently. Implications for public/private policy supporting casemanaged community based networked approaches are addressed. Also discussed are ethical and legal data protocol issues and the multiple and complex technical and organizational requirements faced in designing and in utilizing modern computer assisted approaches in emerging significant social policy arenas.

Civil Rights

New Technology: An Equaliser of Opportunities?

Jackie Rafferty and Ann Wilkinson, Center Coordinators, CTI Centre for Human Services, Department of Social Work Studies, The University of Southampton, Southampton, UK SO9 5NH

Information is power. How the use of new technology is controlled and resourced determines whether disadvantaged groups are empowered or disempowered. What are the issues for clients and staff in Human Service agencies? What are the resource implications on an individual and organisational level? What hurdles do individuals and groups have to overcome?

This workshop will focus on the impact of new technology on equal opportunity issues by looking at the current level of practice in Human Service agencies in relation to new technology and people of colour, women, and people with disabilities.

The first Husita conference raised the subject of access to new technology for developing countries but literature searches in Britain have revealed very little on how new technology can empower people of colour in multiracial societies. The workshop will look at some of the possible reasons for this and establish an agenda for further work.

There is a range of literature which looks at women's relationship to IT and the subsequent impact on women's position in the workforce, but very little which links the three subjects of Women, IT and Human Services. How can new technology aid women in accessing higher education and enable them to take advantage of new technology in a way that will empower their clients and themselves?

In Britain since the early 1980's much attention has been focused on new technology for children with special needs, but the transition to adulthood appears not to be so well served. If young adults cannot get access to new technology then their opportunities for education, training, work and independent living must be severely limited.

It will be through inputs which illustrate forms of discrimination, the sharing of information and the development of an international perspective that this workshop aims to look forward to the future developments that are needed to promote good equal opportunity practice in the use of new technology in the Human Services.

Information Politics

Information Systems: The Political Factor

Michael J. Buckley, Visiting Scholar, University of Washington, c/o DSHS/DMA/ORS (HA-42) Olympia, WA 98504 BITNET: buckley@max.u.washington.edu

The advent of the "information age" held forth much promise in terms of significant benefit from computerization, both for public and private agencies. Among other advantages, computerization was supposed to help organizations increase the quality of services in a cost–efficient manner. Unfortunately, the reality of automation often has fallen short of the ideal; benefits have failed to materialize for agencies and their clients, at least in sufficient quantity

to justify the often significant investment of scare financial and staff resources.

There have been numerous attempts to explain this phenomenon as a failure of technology, or of poor project planning. While these, indeed, are significant considerations, too often ignored is the "political factor" associated with development of automated information systems.

This paper focuses on two faces of this "political factor": the impact of organization politics on the planning, design, and implementation of automated information systems, and the political nature of information systems themselves. The paper argues against looking at information systems strictly from technological and financial perspectives, and advocates for greater awareness on the part of managers and others in human services agencies of the role the "political factor: can play.

Finally, the paper suggests some strategies for overcoming some of the political barriers that now prevent modern computer technology from more effectively serving the poor, the mentally–ill, the developmentally–disabled, and other underserved populations.

Legal, Philosophical, Ethical, Health, Issues

The Automated Social Worker

Barbara Garson, Writer, Computers for Social Change Conference, 463 West Street, Apt. 1108A, New York, NY 10014

A chapter in my book, THE ELECTRONIC SWEATSHOP (Penguin, 1989, pp. 73 to 114), describes how the computer automation of Massachusetts welfare centers was used as the occasion to transform professional social work into complex clerical tasks.

After an old fashioned time and motion study, how many seconds to pull a file folder, answer a phone, etc., time standards in tenths of an hour were established for each of over 60 official functions, for instance, Issue Food Stamp I.D. Card, .3; Authorize Funeral and Burial Expenses, .7; Replace Lost or Stolen Check, .4.

At first the dedicated and adept social workers had no trouble stealing tenths of hours from the paper work to do some of the necessary social work for their clients. But once the electronic monitoring systems were functioning, officials in a central office could tell at exactly what moment a welfare worker in a ghetto or rural center touched the keys that recorded each clients interview. The older workers suffered as they saw their leeway to counsel decline and their autonomy to suggest particular services or benefits virtually disappear. But the newer workers (the department now hires high school graduates) had never known any way to work but to enter the data on income, family composition, etc. and wait for the machine to calculate food stamp entitlement and other benefits and spit out the list like a supermarket sales slip.

Of all the welfare workers I interviewed, the most touching were those who originally welcomed the new computers hoping they could help their clients through the kinds of labor saving, rather than labor controlling applications we'll undoubtedly be hearing about at this conference.

The process I witnessed in Massachusetts was federally funded and carried out around the country. In fact, many state welfare agencies used the same consulting firm. Welfare workers from other states tell me how helpless they felt as the same process demeaned their work.

In Sweden the social work union hired its own consultants to design appropriate computer programs. One of their conditions for cooperating with automation was that the time saved on paper work should be used for social work. In the U.S., few unions have either the power to set conditions or the knowledge to propose alternatives.

I will tell the story of these automated welfare workers at the HUSITA conference, using the kind of anecdotal detail found in my book chapter. If possible I'd like to speak along with social workers who have succeeded in influencing the design of the computer systems they use. Because of my book, I was invited to Sweden where I met many people concerned with these problems. Perhaps we could arrange to have Swedish representatives on such a panel.

The Politics of Computer Ethics: Human Services, Information Technologies, and Social Control

Joseph E. Behar, Ph.D. Professor of Sociology, Dowling College, Oakdale, New York 11769

This paper discusses the ethical, legal, and political issues surrounding computer use in the human services, especially in relation to technologically assisted child support enforcement. As social workers, human services employees, and bureaucratic administrators activate and implement information technologies in the performance of their duties, they operate in areas with little or no legal or ethical precedence regarding invasion of privacy issues and the problems of computerized depersonalization. While expediency and efficiency may be gained by computerized services, social and human services workers will confront problems of moral responsibility and legal constraint as they become increasingly identified as computer professionals.

By specifically examining the enforcement of child support laws in relation to computer tracking and the network accessing of large public and private databases of personal information, this paper critically examines the conditions of ethical professional social service behavior under conditions of computerization.. The paper also presents an analysis of the changing occupational structure in social welfare.

In the computer age, the problems of power and privacy are central. Computer specialists, especially in the human services, need a vision not only of their occupational role as it fits into a public bureaucracy but also of their responsibility in relation to the social control consequences of the bureaucratic management of electronically networked personal databases.

This paper seeks to assist human service workers in identifying and understanding issues of personal freedom, social control, and social inequality as they confront the social effects of information technology.

Computer Information and Human Knowledge–on the Dualism of Thinking in Social Work.

Professor B. Kolleck, Fachhochschule fur Sozialarbeit und Sozialpadagogik Berlin, Karl–Schrader–Strassse 6, 1000 Berlin 30, Germany.

Computer application is not neutral to the contents and performance of social work. From the social worker it demands a specific, technically oriented way of acting and thinking. Social workers have to know something about computer systems and computer programs. They must operationalise their tasks to get support from computer technicians. The special demands for social work is demonstrated for different types of computer programs, namely programs for counselling, testing and administration purposes.

The usefulness of computers is not denied, but social work cannot be regarded as just another technical profession. Evidence is given that social work methodology does not follow merely the technical and scientific guidelines which finds their roots in formal logic, but also depend on hermeneutical and dialectical qualities. So the social and physical situation of clients, as well as personal and social resources, must be understood; solutions must be found that reflect individual potentials and problems the clients have to solve. Counselling and supporting is only successful if social workers get an intimate understanding of personal circumstances, and an intuition for an effective strategy.

Unfortunately, there is still quite a strong controversy between groups of social workers which either causes stress to the technical or the personal aspects of their work. So the more technically oriented feel it is irresponsible not to use new techniques, as they provide a more exact, justified, faster and more efficient social support. The other side finds reasons to call computer programs in social work undignified, time consuming and ineffectual.

The attempt is made in this contribution to go beyond or before the existing conflict and accept both paradigms, both ways of working are necessary and integral parts. This concept allows a clearer view of the components of social work methodology, but might claim not only to take a different point of view, but accept a different self–consciousness for social workers. Conclusions are drawn that lead to more effectiveness, and it is indicated how losses in quality are avoided and satisfaction of professionals is improved.

Computer Use in Human Services: Pioneers and Innovators.

Hein de Graaf, Dorpsstraat 47, 2396 HC Koudekerk a/d Rijn, Netherlands.

Why is it that practitioners don't use interesting new computer applications?

Some strategies are described to encourage innovative use of computers in Human Service practice, making use of already existing pioneers and 'change agents' within the target group.

Pioneers, however, can get in trouble within the Human Service organisation they work.

One of the conditions to success in these strategies is building organisational and human networks within a country, but especially on an international level. That is why ENITH (European Network Information Technology and Human Services) is important.

The paper concludes with a description of ENITH.

The Conflicting Needs of Social Research and Social Work and the Solution Computerisation can Offer

Jan Steyaert, University of Antwerp, Department of Social and Political Sciences, Universiteitsplein 1, 2610 Wilrijk, Belgium.

Social research (and registration as a special instrument of) is a much spoken of but seldom used practice in social work. It is much spoken of because the Belgium organisation of social work consists of a subsidiary system, and the government expects a detailed registration report of every social work organisation every year.

It is seldom used because the focus of social work and social research is fundamentally different. Social work tends to individualise problems, whereas social research basically tends to generalise things for larger groups of persons or populations. This individualising tendency of social work has different reasons. First of all, there is the psychological proximity of individuals compared to the abstract notion of a population. Historically, this leads to the development of what is called 'social casework', which is basically a technique of very individualised social work. Moreover, social work has been influenced very much by the liberal ideas of the enlightenment and the accompanying portrayal of mankind.

These attitudes of social work towards social research can be compared with the attitudes of general practitioners and other medical staff towards the epidemiological approach of health.

Computerisation offers opportunities to break out of these opposing needs and attitudes. By means of an integrated Client Information System, social workers can perform a good and reliable registration without the burden of the shift in focus, when the files of the clients have been automated. Basically, registration is nothing more than turning over the information–matrix and approaching it through the columns, whereas individual work approaches it through the records.

We will discuss on which conditions this integration of file–keeping and registration can work out, present a few cases in large and small social work organisations, and discuss further possible developments.

Ethical Dilemmas in Applying Second Wave Information Technology to Social Work Practice

Ram Cnaan, University of Pennsylvania, School of Social Work, Caster Building, 3701 Locust Walk, Philadelphia, PA 19104 6214

Julie Cwikel, Ph.D., Ben Gurion University, Bur Sheva, Israel

Social work practice is entering a new stage in the use of information technology. First wave software was used primarily in administration and research, and had little impact on direct practice. The second wave is characterized by modern databases, decision support systems, expert systems, electronic networks and therapeutic applications which have a greater impact on direct practice.

This paper assesses ethical dilemmas posed by the use of second wave information technology in social work practice in order to encourage constructive adaptation to the coming technological change.

Long–term Care Data and its Applications

Sharon Sokoloff, Long–Term Care Consultant, 99 Linden Street # 37, Waltham, MA 02154

Introduction and Background

Public and private long–term care (LTC) delivery and finance systems for the elderly have burgeoned in the past 25 years. With this growth, it has become conventional wisdom that uniform and systematic assessment is a cornerstone to providing quality LTC to the elderly. Assessment tools themselves are a technology, first designed and used for clinical purposes. Comprehensive assessment tools are multidimensional, i.e., they collect information which describes a person's status in sociodemographic, physical function, cognitive, social and medical/health domains. This information is essential to determine client need and develop effective and cost–effective care plans.

Beyond the Clinical

In the 1980's, tremendous progress was made in the establishment of large, nationally–representative, longitudinal LTC data sets which are being systematically mined to produce information for the purpose of planning and policy analysis. We have learned that the data initially used for clinical purposes only, when reorganized and manipulated, is a valuable tool to improve: 1) the efficiency and effectiveness of the delivery of care; 2) targeting efforts, e.g., screening, underwriting, and benefit determination processes; 3) cost– effectiveness of care; 4) the quality of care; 5) links between and coordination of delivery and finance systems; and 6) agency and organizational management. With the increased accessibility of computer technology, the challenge of the 1990's is to maximize the applications of the vast amounts of LTC data collected by delivery and finance agencies and organizations.

Focus of Presentation

The purpose of this presentation is threefold: 1) to present a brief rationale for the importance of collecting and exploiting client–oriented LTC data in a uniform and systematic way; 2) to demonstrate how LTC data has already been used for administrative, planning and policy analysis purposes and how the applications of this data can be expanded within delivery and finance organizations; and 3) to present unresolved problems and challenges that have emerged as a result of using information, initially intended for one purpose, is used in other ways.

Resources

Electronic Information Resources

MCH—Net is a national electronic network for Maternal and Child Health. Contact Andy Lefton, National Center for Policy Coordination in Maternal and Child Health, 5700 SW 34th St., #323, Gainesville FL 32608 904/392–5904 FAX 904/392–8822.

Newsletters, Magazines, Journals...

Psychology Software News is a newsletter for Psychologists with a concern for using computers in teaching. Contact Chris Jardine, CTI Centre for Psychology, University of York, York YO1 5DD, UK, Phone: +44(904)433156, Fax: +44(904)432917, Email: CTIPSYCH @YORK.AC.UK.

Call for papers: Studies in Technological Innovation and Human Resources (Vol 4), Women & Technology, Urs E. Gattiker, Editor, Technological Innovation and Human Resources, Faculty of Management, The University of Lethbridge, Lethbridge, Alberta Canada T1K 3M4.

Books and Reports

Computer Use in Psychology: A Directory of Software (2nd Edition—1989) is Edited by Michael L. Stoloff and James V. Couch and available from American Psychological Assn., 1200 17th St NW, Washington DC 20036. Each directory entry contains software title, type, authors, publisher, description provided by author, prices and hardware requirements. The directory contains 883 entries (195 pages) in the following categories.

Academic Software (181 listings)
Clinical and Applied Psychology Section (121 listings)
Statistics and Research Section (216 listings)
Testing Software (365 listings)

Information Technology in Local Social Service Departments in Israel Edited by Yitzhak Berman, Jan,m 1991, 41pp. Contact the author at State of Israel, Ministry of Labour and Social Affairs, Dept. of Planning & Social Analysis, 10 Yad Harutzim St., Jerusalem 93420.

Rehabilitation Technology Resource Guide (3rd Edition) contains descriptions of 46 U.S. information centers on assistive technology. Contact Human Interaction Research Institute, 1849 Sawtelle Blvd #102, Los Angeles CA 90025 213/479–3028 FAX 213/479–4650.

Assistive Technology: A Funding Workbook is available from RESNA Press, 1101 Connecticut Ave. NW #700, Washington, DC 20036, $25, pp. 330

1991 Local Government Software Guide list details of over 800 programs. It is available from ICMA, 777 N. Capitol St NE #500, Washington DC 20002–4201.

1991 Special Education Software Catalog is available from Brain Train, 1915 Huguenot Rd, Richmond, VA 23235.

Public Domain Software Catalog for Persons with Disabilities is available from Colorado Easter Seal Society, 5755 W. Alameda Ave., Lakewood CO 80226.

Software Announcements

$10,000 will be awarded the best idea, system, device or computer program for people with disabilities submitted before 23 Aug 91. Contact Computing to Assist Persons with Disabilities, PBO 1200, Laurel, MD 20723.

All software is 50% off at The National Collegiate Software Division, Duke University Press, 6697 College Station, Durham, NC 27708 due to the division closing.

Hyper—ABLEDATA contains over 16,000 assistive technology products on CD ($50) and HyperCard 2.0. An IBM version is under development. Contact TRACE, S–151 Waisman Center, 1500 Highland Ave., Madison WI 53706 608/263–6966 about Hyper—ABLEDATA and for a free catalog of other related resources.

Upcoming Events

20th Annual Meeting of the MUMPS Users' Group, June 3–7, 1991, New Orleans, LA. Contact MUG, 4321 Hartwick Rd Ste 100, College Park, MD 20740, 301/779–6555, FAX 301/779–7674.

National Educational Computing Conference, June 16–20, 1991, Phoenix AZ. Contact G. Bitter, ASU, AMF–Community Services Center, Tempe, AZ 602/965–7363.

14th Annual Conference on the Advancement of Rehabilitation and Assistive Technologies, June 21–26, 1991, Kansas City, MO. Contact RESNA, Suite 700, 1101 Connecticut Ave., NW, Washington, DC 20036, 202/857–1199.

Computers for Social Change, June 26, 1991, New York City. Contact Terry Mizrahi, ECCO, 129 E. 79th St., NY, NY 10021, 212/452–7112. The Computers for Social Change conference is being held in conjunction with the HUSITA–2 conference.

HUSITA–2 HUman Service Information Technology Association 2nd Conference, June 27–30, 1991, New Brunswick, NJ 08903. Contact Marcos Leiderman, Rutgers University. School of Social Work, 536 George St. Rm 206, New Brunswick, NJ 08903–5058 201/932–7935, BITNET: 2275027@RUTVM1.

Eighth Annual Conference of the Connecticut Special Education Network for Software Evaluation, July 11–12, 1991, Contact Chauncy N. Rucker, UConn Center for Professional Development, One Bishop Circle, U–56D, Storrs, CT 06269–4056 203/486–0172.

31st Annual Conference of the National Assn. for Welfare Research & Statistics, July 28–31, 1991, Charleston, SC. Contact Sandra Brown, Program Chair, Georgia Dept. of Human Resources, 47 Trinity Ave., 412H, Atlanta GA 30334, 404/656–3766.

Computing and Values, August 12–16, 1991, Southern Connecticut State U., New Haven, CT. Contact Terrell Bynum, Research Center on Computing & Society, Southern CT State U., New Haven, CT 06515 203/397–4423, FAX 203/397–4207, Bitnet: MANER@andy.bgsu.edu.

Microcomputer Technology in Special Education & Rehabilitation, October 17–19, 1991, Minneapolis, MN. Contact Closing the Gap, POB 68, Henderson, MN 56044 612/248–3294 FAX 612/248–3810.

Engineering Design for an Aging Society, October 23–25 1991, Philadelphia, PA. Contact K.N. Geller, Office of Sponsored Projects (1–319), Drexel Univ., Philadelphia PA 19104.

World Congress on Information Technology, Computerization and Electronics in the Workplace for People with Disabilities December 1–5, 1991, Arlington, VA. Contact Sue Mercado, GSA (G), 18th & F St, NW, #7022, Washington, DC 20405 202/501–0720 FAX 201/501–3510.

7th Annual Conference on Technology and People with Disabilities, March 18–21, 1992. Contact California State U., Office of Disabled Student Services, 18111 Nordhoff St—DVSS, Northridge, CA 91330 818/885–2578 FAX 818/885–4929.

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Thomas Neudecker, Assistant Vice President for Academic Affairs, Carnegie Mellon University, 500 Forbes Avenue, Pittsburgh, PA 15213

Dick J. Schoech, Coord. & Newsletter Editor, Assoc. Prof., U of Tx at Arl., Grad Sch of Soc. Work, POB 19129, Arlington, TX, 76019-0129

Stuart Toole, Coordinator, UK CUSSN, City of Birmingham Poly, Dept of Soc. & Applied Soc. Studies, Birmingham, UK B42 2SU

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