

Computer Applications in Social Work and Allied Professions

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**Computer Generated Aids for
Sufferers of Alzheimer's Disease**

**Computer-based Social Work
Client Information System in Kent**

Viewdata in Strathclyde

**Telecommunications and Rural
Social Work in the USA**

**Computers and Social Work
Students**

**Full Details of the Husita '87
Convention**

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Up Front

The Software Boom By-passes Social Work

This edition has a focus on some of the applications of information technology which can be of direct benefit to people in the front line of the personal social services - that is, clients and welfare workers. There are articles about an electronic communication/information network used by social workers in Scotland, and as advocated for rural workers in America; about the use a client information system to provide regular caseload data to social workers, and about computer generated aid for sufferers of Alzheimer's disease. They originate, in order, from a social work agency, a university based research unit, and a small free enterprise project.

On the face of it there is nothing particularly remarkable in that mix of offerings, yet it achieves more significance when linked to one or two facts about computer software developments. First of all, the computer user is overwhelmed by the vast number of software packages available for some tasks - for word processing, stock control, accounting, and so forth. Then a slightly closer acquaintance shows up the names of some of the firms who have grown big in this line of business. Why is there no such choice in the human services? Why no sizeable firms making a name in software for social workers? Why are we so dependent on isolated groups or individuals for applications, when there is such an obvious need to provide an information technology component within the infrastructure of welfare provision?

The instant answer is 'money', or more precisely 'profit'. If the market was big enough, and had sufficient financial buoyancy, we are told, Ashton Tate and the rest would move in. We would then have the likes of Integrated Social Work, or the Therapy Suite! Yet whatever element of truth there is in this standard argument, there are also flaws. Certainly there is money for good systems: not as much for the intricate word processing capabilities of a Word Perfect, but perhaps in the same league as, for example computer aided design. Further, money is not everything. There has been a phenomenal growth in public domain software, and Britain is now taking to the American concept of "shareware" - good cheap software, well within the purchasing power of computer users on low budgets.

A more realistic answer may be found in the presence or absence of stimulus. In some sectors of the economy a new computer application is greeted with great enthusiasm, witness the current excitement about desk top publishing, so that programmers are carried along by the knowledge that users are falling over one another to try out new creations. And in social work? There are enthusiasts to be found (often more likely to be seen as eccentrics!), but they

face an uphill struggle. Two reasons come immediately to mind. One is the slow reaction of leaders in the human services to the potential of information technology. Some management teams saw the opportunity and moved in with determination; others are still shuffling, discontentedly, towards a reticent try-out. Was it like this when typewriters were first marketed?

The second reason is the absence of a solid programme of developmental research. Groups like LAMSAC have made efforts, and their CRISSP packages will soon be in operation. Some Alvey money came in this direction, though the output is hard to track down. Many local authorities have invested in developmental work. Nevertheless, that amount spent on research and development is paltry in relation to the importance of the subject. Sadly information technology arrived a couple of decades too late. Twenty years ago research money was available for almost anything: today there is no more than a trickle. However, this editorial can end on a more hopeful note. At the time of going to press the DHSS is thinking seriously about putting a good portion of its scarce research funds into some work on information technology in social services departments. We will report whether the positive thoughts become firm intentions.

Bryan Glastonbury

Contributions to the Journal

Computer Applications in Social Work and Allied Professions welcomes articles, reviews, news items and letters from readers.

Articles should be from a minimum 750 words to a maximum 5,000 words.

Reviews of printed material or software should not normally exceed 300 words, unless discussed beforehand with the Editor or Review Editor.

Either the Editor or the News Editor would welcome items of news since the journal aims to give regular reports on the latest applications of computer technology. Letters should be addressed to the Editor.

All contributions to the journal should be typed or printed (draft quality is acceptable), double-spaced and single-sided. Please send three copies of articles and reviews.

The journal does not maintain a long waiting list of material for publication and those who have a contribution accepted can expect it to appear within the next two issues. Potential contributors are invited to contact the Editor or, as appropriate, the News and Review Editors, to discuss a possible item.

Up Front

How are we to equip the next generation of social workers to use computers creatively - or at least wisely - and to understand and begin to address the ethical problems computers bring to social work practice?

Teachers of social work are all familiar with the continuous process of monitoring developments in a particular area of practice, of placing such developments in their historical, political and ethical context and of trying to forge new ways forward based on some kind of creative synthesis of their findings. But computer applications in social work pose particular problems.

Even the familiar and basic task of keeping in touch with practice developments is here much more complex because the field itself is grappling with developments on so many fronts. Which areas will become, or should become, most important for the future of social work practice - applications, for instance, for the management of service delivery, applications for ensuring accurate information-giving such as welfare rights programs, or applications for use in work with clients such as the *Chesterfield Alcohol Program* or *The Story of Dave*?

The speed, variety and magnitude of developments make the business of attempting to locate historical, political and ethical contexts difficult indeed, and the search for coherent direction seems repeatedly overtaken by events. But this kind of difficulty is as nothing when one moves to the next stage, that of working out how to teach all this to social work students.

This is where most teachers will move away from familiar ground. There will still be the familiar debates about the number of teaching hours and integration with or separation from other units of the course, but other questions are new; and if you have access to colleagues with sufficiently detailed interest and knowledge to help think them through, perhaps you are fortunate.

The new questions are about the nature and weighting of teaching towards specific areas of learning - should newly qualified social workers understand how computers can be used as tools for practitioners, for management, for clients or for monitoring and research? Should such understanding include hands-on competence? I personally would like to include all these components, but an overambitious syllabus leaves students feeling the thing is impossible and other areas of the course seem to them more relevant to their practice needs. If one focusses on the areas where students see immediate

Social Work Students and Computer Applications

relevance, such as welfare rights or social skills training, does this risk their failing to understand how computers can be made to work at management levels either for or against the social work values they import. And how relevant, really, are hands-on skills when an employing authority will probably not have these particular machines and software. If I am really only breaking down resistance to touching the keyboard, why not concentrate on word processing or simple authoring languages? These are the skills which may be transportable.

These then are the questions for me. I imagine readers will share some of them and have others which are different, (I am, after all, fortunate in having a large user-friendly computer centre just downstairs). We may each have ideas which would help the other, if only we could pool them.

This is the basic need which CASW is trying to meet:

- **Firstly**, by means of a 60 hour pickup scheme held at Birmingham Polytechnic in January and May 1987, offering workshops for social work teachers who wish to work together on the problems of teaching computer applications.
- **Secondly**, by means of a survey. Questionnaires will arrive for all CQSW courses at the beginning of the Spring term, designed not merely to discover how courses across the UK approach teaching on computer applications but also to form the basis of an information exchange. If you identify particular problems we may be able to put you in touch with others who share the problem and have part solutions.
- **And Thirdly** - why not contribute an article to the CASW journal and share your ideas with other teachers of social work? If you are interested in any of these aims please contact the Editor or -

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CUSS Electronic Network

Overview

The electronic component of the Computer Use in Social Services Network (CUSSnet) establishes local bulletin boards, local and international mail and mail transfer, and repositories of electronically available information.

CUSSnet builds on FIDONET, 1500+ nodes local BBs (bulletin boards) across the world. These nodes automatically connect nightly to exchange mail and files. Most local FIDONET BBs are free with the exception of a small fee for sending mail electronically. CUSSnet nodes perform functions such as:

- Maintaining a bulletin board (messages/files) for local users;
- Maintaining a local message area for international mail and conferencing;
- Exchange weekly speciality information /files with other CUSSnet nodes;
- Helping new users subscribe and access the network.

Message areas: local messages, local NEWS, FIDONET mail, national ECHOMAIL conference and resources (books, announcements, software, etc.)

To use CUSSnet

If a CUSSnet node is in your city, you're in luck. Simply dial it up using your computer and a modem and follow the directions. If no CUSSnet node exists in your city, you can call long distance to any CUSSnet node listed below. Before calling CUSSnet long distance, you can learn to use FIDONET BBS software by calling a local node.

To locate a local FIDONET node, ask your local computer dealer or call 130/5 (below) and type FIDOLIST.80 in the help file area. You can also use a local FIDONET node to send mails and get whatever CUSSnet information your local BBS operator will get for you.

You may have to pay for a small deposit to your local FIDO. Communications are at 300 - 2400 baud, 8 data bits, 1 stop bit and no parity. Almost any computer or terminal and modem will work.

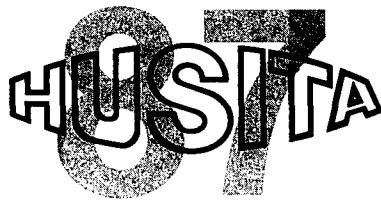
Steve Ice (below) can provide assistance.

File Areas: Files related to mental health, developmental disabilities, welfare, health, training, games and utilities.

City & State	Net/Node	Phone Number	Operator	Speciality Focus
Arlington TX	130/5	817 273-3966	D. Schoech	Recent Publications
St. Louis MO	100/999	314 889-4696	B. Butterfield	Bibliographic Information
Murray KY	11/301	502 762-3140	B. Allbritten	Handicap Information
Denver CO	104/614	303 871-2912	W. LaMendola	Software Information
Milwaukee WI	139/450	414 963-4515	W. Gingerich	Curriculum Information
New York NY	107/37	212 532-2278	G. Hoffman	Training Information
Raleigh NC	158/101	919 851-6806	M. Bowen	Handicap Information
Seattle WA	138/35	206 442-8127	S. Ice	Federal Info. 12pm+
Garden City NY	107/240	516 228-7938	G. Geiss	Skills Bank
Arlington TX	130/10	817 649-2857	C. Brown	Disabilities Info
Tempe AZ	114/23	602 965-1588	W. Hudson	General
New Hampshire	132/11	603 798-4028	D. Hall	General
Phoenix AZ	114/15	602 235-9653	D. Dodall	Disabilities
Guildford UK	503/2	0483 573337	Compulink	Check CASW areas
Cardiff Wales UK	503/43	22 704739	W. Davidson	CUSSnet Info.
Washington DC	To be Announced		PICA	Community Agencies

To start a CUSSnet Node, call Steve Ice in Seattle at 206 442-2430

Human Service
Information Technology Applications



The First International Convention
September 7 - 11, 1987

Birmingham, United Kingdom, is set to be the site for the most important event staged in the history of Human Service computing.

From September 7 - 11, 1987, CASW will host HUSITA '87 - the first international convention to be aimed specifically at those active in the field of Human Service Information Technology Applications.

HUSITA - Who Will be There?

- Human Service Professional Staff, Social Workers, Psychologists, Psychiatrists, Counsellors, etc.
- Human Service Policy Makers
- Human Service Educators
- Computer Professionals interested in this new and expanding market.

HUSITA - Special Features

- Free* - Lunch & Refreshments throughout the three convention days, 8-9-10 September
- Free* - Access to *all* convention workshops and seminars on 8-9-10 September
- Free* - Convention Proceedings and papers
- Free* - Disc of selected public domain software.

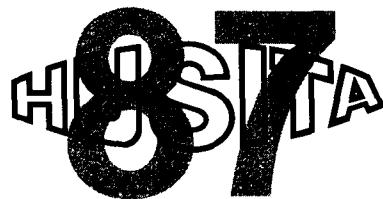
HUSITA - Can You Afford to Miss It?

- Husita will explore the leading edge of information technology in human services
- HUSITA will be the largest-ever international gathering of human service computer personnel
- HUSITA will assemble, under one roof, the most comprehensive collection of human service software
- HUSITA will host the most all-embracing vendor, product and demonstration Fair ever seen in the world of human service computing

HUSITA - Presentations Include:

- Strategies for integrating information technology into human services
- Women and minorities in information technology
- The impact of technologies on those receiving services
- Expert-Systems
- Local and international networks
- Impact on professional practice and education
- Privacy and confidentiality

Human Service
Information Technology Applications



The First International Convention
September 7 - 11, 1987

Public Domain Freeware

- HUSITA will feature the largest ever collection of Human Service Public Domain Freeware: a low-cost copying service will be available.

International Co-operation

- HUSITA will inaugurate a new international body to co-ordinate future developments in human service computing

HUSITA - Extras Include:

- Workshop programme available on Monday 7th September
- Full social programme
- Meeting on Friday 11th September to inaugurate the new international body to co-ordinate future development and co-operation
- Excursions and educational/technical visits
- Accompanying persons programme

HUSITA - The Challenge!

HUSITA 87 is the opportunity we have been waiting for to share our experiences, to assess the realities of the present and to commit ourselves to directing our future in human services information technology

Travel & Accommodation

- Attractive rates for flights world wide through HUSITA's Official Carrier Pan Am
- Full range of accommodation available
- Pre or post convention touring packages available

Convention Fees

HUSITA 87 represents tremendous value for money. Convention Fees are £215 (Sterling) and \$465 (US). Discounts are available for those who book early

A range of accommodation is available from £15/\$25 per night to £40/\$70 per night.

For Full Details & Further Information Contact

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Aids to Awareness and Communication

Dave Arber

Using Computers with Sufferers of Alzheimer's Disease

"We all rely on information given by clocks, calendars, diaries, newspapers, etc., forgetful people need these aids even more to help them cope with their poor memory . . . Have clocks and calendars in view to help the patient remember what time and date it is. Make sure they are accurate and up-to-date, the same applies to watches, if worn. Any calendar should show clearly today's date . . . All information should be displayed in large clear text using bright colours."

(*Caring for the person with Dementia: Alzheimer's Disease Society*)

Some observations

An awareness of time and place, and an awareness of the correct relationship between past and present, are taken for granted in a healthy person. Many sufferers of Alzheimer's Disease (A.D.) are unable to retain such basic information as time and place, or make the correct distinction between past and present, without being continually reminded. Without external prompts such as signs, calendars, clocks and other indicators, the A.D. sufferer is not only caused considerable distress, but can also be led to act inappropriately. Inappropriate behaviour can cause embarrassment. Worse still, it can lead the sufferer into dangerous situations.

Case 'A'

Bill, an A. D. sufferer in his seventies, believes that he is located in Newry, Northern Ireland, in an unidentified pre-1940 year. He left Ireland when he was twenty years old and has lived in England since. Bill appears to exist in two separate realities: a '*Recollected Reality*' built around his childhood memories, juxtaposed with the '*Reality of the present*'. Bill's '*Recollected Reality*' is not entirely imaginary or false. A dislocation seems to have occurred between the time and place Bill believes himself to be in and the real world in which he actually exists. Attending a day centre in Coventry, Bill continually asks to be taken 'home'.

When asked where 'home' is, he will give a description of where he lives, in a rather garbled fashion, based upon his childhood experience. He soon becomes confused as the superimposed '*Recollected Reality*' becomes tangled with the perceived reality: the room, the furnishings and the faces of the people around him. None of these things fit into his 'world'. As Bill grapples with this confusing dislocation of time and place, stress quickly builds up. Ignoring Bill's requests to go 'home' only aggravates the situation. Left unattended, Bill will try to resolve these conflicting realities by attempting to find a way out of the building and heading for 'home'.

Once he is on his own, Bill is completely lost. He is searching for a home which no longer exists. Distressed by this, lost and often inappropriately dressed, potentially dangerous situation is created. Bill is not equipped to cope with the conditions, especially the heavy city traffic, which he finds himself in. When recovered from one of his excursions, Bill is always relieved to see a familiar face. The stress caused by temporal disorientation in Bill can manifest itself in his wanderings or in him becoming aggressive. It is always accompanied by obvious mental and physical discomfort. The confusion can often lead to him bursting into tears, and shouting, "For God's sake won't

Editor's Note: Alzheimer's Disease

The symptoms of Alzheimer's Disease, as described by the A.D. Society are 'a gradual degenerative decline in the intellectual abilities, coupled with an associated physical decline'.

It is closely related to *dementia*, which is thought to affect as many as 10% of the over 65's in this country

Aids to Awareness and Communication..

somebody tell me what is going on here?". At times of severe stress his face turns red and he is obviously suffering physical discomfort. It is tempting to quell Bill's persistent questioning by reassuring him that he will be going 'home' soon; this calms him for two or three minutes, but such reinforcement of mis-information can be damaging. By agreeing with Bill's belief that he still lives at home in Ireland, other misconceptions can be encouraged. When Bill lived in Ireland he was a young man, he was single and his mother was alive. Confusion over one of these areas leads logically to a complex of related confusions. This can only make the sufferers' life more distressing and the carers' role more demanding.

It is not possible to relocate Bill in his *'Recollected Reality'*. Even if he could be taken back to the town of his childhood, it is unlikely he would recognise it. The only other alternative is to locate Bill in the present. (The orientation of a person towards the present is known as reality orientation.) This can be time consuming, but the obvious relief experienced by Bill when the orientation is effected can lead him to embrace a carer. Bill is not untypical.

A common problem with the A. D. sufferers who experience temporal disorientation is that they tend to relocate themselves in unique and often fixed recollected worlds. They may talk to people who they believe to be located in the here and now, but who only exist in the past. Some of these recollected people will be relatives and friends. Some will, in reality, be dead. Many opponents of reality orientation disagree with the therapy because they presume that all components of the real world must be set in order for it to work. They argue that it is not fair or humane to remind A. D. sufferers that someone they believe to be alive, is in fact dead. This is a reasonable observation and one to which most supporters of reality

orientation will assent. Reality orientation is not didactic therapy. It is, instead, the creation of a warm, friendly environment of positive, adult attitudes and of activities which *point* the sufferer towards reality. Reality orientation is composed of two distinct elements: Formal or Group sessions, in which A.D. sufferers are actively encouraged to participate in activities or discussions which make them aware of the present and its relationship with their personal pasts; and secondly, 24 hour reality orientation which relies upon a host of audio-visual aids, as well as a warm, friendly environment, to assist sufferers with the location of the self in the present.

home, day care centres, hospitals and residential care. Careful consideration has also been given to the clarity of information. Colour is used to make the information more noticeable and memorable. The information is presented in small units and without clutter. Where images have been used, they have been designed to be friendly and appealing, aiming at encouraging the return to reality rather than forcing reality upon the patient. In our effort to help the A.D. sufferer, we have used many different media. Some of these will be familiar, others will be new. Some of the familiar media include signs and calendars in conventional printed form. We also use tape

The idea of using a computer with elderly and/or physically infirm people will seem alien to many people. Yet the computer is now used extensively throughout the educational sector with people of all abilities, including those with mental or physical handicap.

Design philosophy

Whilst designing aids for A.D. sufferers, consideration has been given to both the formal and the 24 hour approach to reality orientation therapy. Some of the aids are more suitable for use in day centres and other institutions for elderly people, where group activity and participation can be encouraged. Some have been designed to provide a framework of aids for those sufferers being cared for or living at home. Care has been taken to ensure that there is consistency between the aids used at home and those used in institutions. Such consistency not only provides security and comfort through familiarity, but also aims to reduce the level of confusion experienced by the A.D. sufferers as they move between

recordings, slides and projectors together with images projected through a computer onto a television screen.

Computers for those with special needs

The idea of using a computer with elderly and/or physically infirm people will seem alien to many people. Yet the computer is now used extensively throughout the educational sector with people of all abilities, including those with mental or physical handicap. In the case of physical handicap the computer is often used to help overcome a physical disability. People who are unable to move their arms and hands, for example, can communicate through the written word by depressing keys on the computer keyboard using specially

Aids to Awareness and Communication..

designed 'wands' attached to their heads. By lining up the 'wand' on the appropriate key and nodding their heads they can compose written material. If the computer is linked to a telephone, the written word can be transmitted to anyone, anywhere in the world, providing that they have suitable receiving equipment. The blind can use synthetic speech.

In the area of mental handicap the computer is often used to assist with skills such as reading, writing and basic numeracy. It is not only children who use these aids in the education sector. Many classes run for adults use computers to assist the learning process. Experience using a computer in this area suggests that those with learning difficulties, or those who are embarrassed by their lack of skills, are more likely to be encouraged to learn when using a computer than through any other medium.

**Computer technology does not have to be presented as either complex or new...
the computer can be presented in no more alarming form than a conventional T.V. set fitted with remote control.**

Around three quarters of all mentally and physically handicapped people are included within the term 'elderly'. This is not surprising. What is surprising is that so little attention has been directed at using computer technology to assist those within this sector.

One reason may have been the belief that elderly people would find the equipment associated with computers too complex. Another reason may have been that elderly people themselves would resist the introduction of modern ideas and aids into their world. In certain circumstances both of these

objections may be true. But computer technology does not have to be presented as either complex or new. In fact, using equipment already available, the computer can be presented in no more alarming form than a conventional television set fitted with remote control.

Information provision

Having used the computer to help people who are blind, the deaf-dumb, those with other physical disabilities, or are mentally handicapped, for a variety of statutory and voluntary organisations throughout England, it has become clear to me that the computers are capable of providing certain features which books, newspapers, radio, television and other information sources are unable to provide. Using a computer, for example, we can alter the background colour and text colour independently, to find a colour combination which can be read most comfortably at a distance.

often cluttered and little consideration seems to have been given to the background and foreground colours. For many elderly people, especially A.D. sufferers, this makes the services unuseable, as they cannot read the text either because of its size, or because there is simply too much information displayed on the page, or because the colour of the background and the colour of the foreground makes the text unreadable. Newspapers cause the same problems. Most calendars also have small print with whole months displayed on a page or part-page. Large print books have been available for those with poor eyesight for many years. 'Talking' books are available for blind people. Large print readers, using television screens are available from some libraries. Few of these are suitable, however, for the sufferers from Alzheimer's Disease.

Large text print

In designing aids for people with Alzheimer's Disease we have given special consideration to the presentation of printed information. Following consultation with psychologists, it was established that one of the last skills to deteriorate amongst A.D. sufferers is the ability to read, assuming that it was present at the outset. Text could therefore be used as a medium for providing either information or for issuing reminders. Following some experimentation with text size, background and foreground colours, it was soon established that people suffering from A.D. could read words as they appeared on a television screen. The speed at which the text appeared was controlled using a single key action on a computer keyboard. By controlling these variables many severely confused elderly people were not only able to take in information but were able to join in simple group activities, such as community singing, following words as they appeared on the screen of the television.

Research using jumbo size print indicates that yellow, white or green text on a black background is seen more readily than other colour combinations.

The use of a computer to provide daily information is not new. Many people, old and young, flick through the pages of "Ceefax" or "Oracle" on their television sets, unaware that the pictures and words are stored on a computer many miles away. Unfortunately, "Teletext" as this service is called, usually produces small print. Pages are

Aids to Awareness and Communication..

Case "B"

Ron spent his life working as a minister before being diagnosed as an A.D. sufferer. He enjoys reading the Bible and singing hymns. Given external prompts he is able to participate in this activity, but he is unable to read the text from conventional sources. As his memory is severely impaired he is not able to recall passages from the Bible or the words of his favourite hymns. Care staff, wishing to encourage him in this activity, were not able to assist him unless they manually transcribed passages from the Bible, etc., in large print onto sheets of paper.

Using a simple, purpose-designed word processor, staff were able to transcribe text into a computer, where text was stored. The words of some hymns were also stored in this way. Once this had been done, the words were fed back through the computer, where they were enlarged and displayed on a television screen, and the speed at which the words appeared was controlled. Ron read the text and sang hymns. Whilst he and a member of staff were singing "Onward Christian Soldiers" others in the group joined in. As a result of this participation, the words of other favourite songs were transcribed and stored in the computer. These were replayed, and the group joined in the singing. We are now experimenting with a whole range of group-based activities which may be encouraged using this system.

Large Text Information Systems and Aids to Memory

The Alzheimer's Disease Society, in its handbook '*Caring for the Person with Dementia*', suggests that external prompts and signs used as aids to sufferers should be made using "Clear lettering and bright colours". Information and reminders presented in this manner are most likely to be seen

and assimilated by the confused person. Information presented through a television screen can be presented in simple, clear form. It is easily assimilated, using the attractiveness of colour and music together with the appeal of movement. The combination of these qualities not only makes the information attractive and easy to read, it also makes it more memorable. As with any information, it can be made more memorable if it is repeated at regular intervals.

To those without memory failure, the importance of this reinforcement through repetition is difficult to appreciate. Once we have learned the day, date and our whereabouts we can usually retain the information for as long as we need. An A.D. sufferer often cannot. The basic elements of the "Here and Now" may be lost within minutes of being learned. Information about reality is important to the A.D. sufferer. The place, time, date, month and year are obviously important. Special days such as Easter, Christmas etc., are also important pointers towards the passage of time. So too are birthdays. Toileting reminders can also be invaluable. The repeated displays of such information through a large television screen is possible when using a computer.

We can, however, go further than simple repetition. Every computer contains a clock. This means that the display of information can be synchronised with the passage of real time. We can display a clock, for example, which will keep time. We can also display a calendar. Because a computer can keep time it can also be used to determine the length of time a single unit of information is held on the television screen. Furthermore, we can instruct the computer to display some information more frequently than other information. It is also possible to ensure that certain information is only displayed at certain times of the day. A reminder to eat, for example, would only be displayed at meal times. Using

such systems we can provide a television information-reminder display which can provide basic daily temporal information, local or personal information, communal information or national and international information. By issuing timely reminders, coupled with other visual aids, the computer can be of assistance in the management of incontinence, as well as help establish regular patterns of behaviour. Toileting reminders can act as a prompt for clients who retain some level of independence. They also remind care staff to implement regular toileting routines. The BASIC INFORMATION BOARD developed by R.O.S.E. contains the following:-

- A clock
- A calendar
- The name of the building or address
- Notice of any special days
- Toileting reminders

Interactive Reality Orientation

Words are not all that can be shown on a television using a computer. Full colour pictures can also be shown. The combination of words and pictures means that, if we wish to remind an A.D. sufferer that it is a sunny day, we can show a representation of the sun with the words 'It is a sunny day', or something similar, in large text underneath. We can go even further than this. We can programme a computer to ask 'Is the sun shining today?' and wait for an answer. If the answer is 'Yes' we can cause the computer to draw a sun on the television screen. If the answer is 'No' we can ask other weather related questions, such as 'Is it cloudy today?'. Using questions linked to pictures in this way we can, by asking the right questions, encourage A.D. sufferers to take an interest in the world as it is. By drawing the right pictures we can

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provide a powerful reminder to the sufferer of what he or she has just seen. By ensuring that the questions and pictures are presented in a lively, interesting manner, we can encourage continued activity. This can be very important where the ability to concentrate is known to be low. "HOUSE", one of the aids to reality orientation we have developed, uses the techniques described above. Patients, usually working in a group, are encouraged to take note of the weather whilst building up a picture on a television screen. This activity, which makes full use of the computer's capacity for colour, sound and movement, is sufficiently simple to ensure that everyone in the group can

become "Are there any trees in the garden?", "Do you (did you) have any trees in your garden?". In this case the act of creating a picture on the television screen has become a reality orientated act because it asks the user to build up a picture based upon his or her direct observation of, enquiries about, or recollections of the real world.

When using computer generated images as an aid to reality orientation staff should take every opportunity to encourage patients to talk about or explore the real world. In the decorating sequence in "HOUSE", for example, when patients are asked to select a colour for the walls or the carpet, staff should encourage patients to think about

We have also taken effort to ensure that the individual or group is rewarded for minimum effort with rewards which are effective, memorable and which encourage continued activity.

take part without feeling embarrassed at not being able to answer questions. It can also provide important mental stimulation to the group.

The activities in "HOUSE" provide a wide variety of mental stimulation. Such mental activity not only encourages the A.D. sufferer to concentrate his or her attention on the real world, it can also encourage communication within the group by providing simple group decision making exercises. Simple decision making can help reinstate within an individual a sense of self-dignity. When the decisions are incorporated into creative activity, the sufferer may also obtain some sense of achievement. In the programme "HOUSE", simple questions, such as "Do you want trees in the garden?" can be re-phrased to

the colour of the walls or carpets in their own home. This type of activity is not available through conventional television programmes. The sequence of images presented on BBC or ITV are fixed by directors. The viewer has no control over what he or she sees. Many A. D. sufferers are unable to concentrate on television. Some are unable to distinguish what they see on television screens from reality and this can often be frightening. Computer generated pictures transposed onto a television screen are not governed by the same rules. The user, whether it be an individual or a group, can exert his or her influence over the finished product. The speed of events can be kept under control to ensure full understanding. The activities can be kept short and changed rapidly from subject matter to subject matter.

In "HOUSE" considerable effort has been made to ensure that the images presented on the television are not frightening. We have also taken effort to ensure that the individual or group is rewarded for minimum effort with rewards which are effective, memorable and which encourage continued activity. "HOUSE" has not been designed to replace staff. It has been designed to help staff. For the therapy to work, staff must be prepared to contribute to the activity and assist the A.D. sufferer at every opportunity. Whilst setting the time on the clock shown on the television screen, staff should take every opportunity to check that patient's own watches are correctly set. Staff carrying out this activity have found that watches are often worn upside down, and many show an incorrect time. This simple act not only provides staff with an opportunity to give a patient individual attention, it also, through the act of having to take a person's hand and wrist to assist with this operation, encourages 'touching', a sensation which is often found to be both comforting and reassuring to elderly confused people.

Advantages

As an aid to reality orientation the computer has certain advantages over traditional reality orientation aids, such as the Reality Orientation Board (R. O.). The typical R. O. Board requires a member of staff to write down information relevant to the group. This usually involves turning one's back on the group, in which time the group may lose interest. The information on the R. O. Board may start out by being large and legible but as more information is added, writing often gets smaller and less readable. The sheer volume of information on an R. O. Board can cause confusion. Not all care staff have good handwriting; spelling mistakes are frequent and writing materials run dry. In some instances, out of date information is left on the

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R.O. Board. With a computer many of these problems can be overcome. By siting the television in a position where it can be seen by all, and by siting the keyboard (which may be at the opposite end of the room) in a position where staff can both face the group and see the television screen, the group leader can both command the attention of the group and enter information without having to turn his or her back on the group, and without having to obscure vision. Each unit of information can be displayed as long as necessary, in large, clear print. This eliminates clutter, ensures that information has every opportunity of being taken in by the group and ensures that no out of date information is left on display. Some control can be exercised over spelling errors. Another advantage of using text and pictures through a television screen is that this involves the relationship between staff and patients.

Lorna Rimmer, in her book "*Reality Orientation. Principles and Practice.*", suggests that some staff may feel uncomfortable when imparting mundane information. The basic nature of many of the topics dealt with during R. O. may irritate as well as orientate patients. Projecting the questions and information through the television can help to eliminate this discomfort. This probably occurs because the questions, information and activities are directed at everyone present in the room.

Although group leaders are encouraged to read out any text displayed on the television in order to assist those who are unable to read, attention is directed towards the television and not towards the team leaders. The group leader is therefore not seen as being separate from the group, but is instead seen as being part of the group. This can lead to a more relaxed atmosphere throughout a therapy session. The overall emphasis on reducing the didactic element in R. O. should also help to overcome any discomfort felt by the clients. Failing abilities produce a lack of confidence

among a number of A.D. sufferers. This confidence can be further diminished through the failure to produce relevant responses for a group leader. We aim to reinforce reality by enabling a group to build a picture of the "Here and Now" using whatever awareness of their surroundings they collectively retain.

Creative activity can take the form of simple art and craft through to indoor or outdoor gardening. Sustained activity is, however, difficult to achieve, and the product of an activity may be much cruder or coarser than may have been achieved before the outset of the disease. Activities which continue over a long period, or which require sustained concentration, are not suitable for many sufferers. Activities which encourage group participation are never easy to initiate or sustain. Short-term activities which encourage a wide variety of mental activities, provoke discussion and which produce an attractive,

interesting or amusing product are most likely to be pursued with enthusiasm and energy. Any activity which includes these features is of value, both to carers and patients. "HOUSE" (R.O.S.E.) and "FACEMAKER" (A.S.K.) are both capable of meeting these criteria. Although "FACEMAKER" is an excellent programme, it was designed for use with other client groups and uses relatively little text. It can also be slow to generate 'rewards'. Using a computer linked to a television as a creative medium also has other benefits. Resources which are used to encourage mental activity in a creative act are often expended during the activity. Computer programmes are not only re-useable, they can also produce different results or effects each time they are used. They also require no preparation and no cleaning up after use. This means that it is very easy for staff to move from one activity to another with a minimum of fuss.

Notes

Dave Arber is a computer consultant specialising in computer uses for people with special needs. The programs he describes are written for the BBC computer, and a pack which includes the programs, along with a BBC 128K micro and colour monitor is offered by his company for £649 plus delivery and VAT.

Contact him at -

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In the next Issue we hope to carry reviews of some of Dave Arber's Software

The A.D. Society

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Feedback to Front-Line Staff from Computerised Records: Some Problems and Progress

David Challis and John Chesterman

Summary

As part of a system for monitoring client intake, social worker activities and costs in a Community Care Scheme for elderly people, a feedback form has been developed for regularly providing social workers and various levels of management with information on their clients. Some of the problems in the techniques available, and opportunities for improving this process are considered.

Introduction

Over the last decade or so there has been an increasing use of computerised information system in social services departments. However, the predominant flow of information has tended to be in an upward direction, reflecting a concern for management information. Rarely, if ever, has such information been routinely used to assist the individual social worker to examine aspects of their own caseload management (Glastonbury, 1985). As a consequence, for many fieldworkers the experience of information systems is that of a one-way exchange: the provision of information with little return to assist their day to day work or case-planning. In the long run this is likely to be a disservice both to managers and fieldworkers. It is the completion of the link, by ensuring that those who provide information at the front line receive relevant feedback, that can make the system effective for both practitioners and managers. This approach, focussed on the needs of management and practice, is likely to prove the strongest incentive to fieldworkers to maintain a flow of reliable and up to date material upon which the utility of any information system must depend. We shall look at how a regular flow of information, about factors such as the numbers and characteristics of clients and the resources used in their care, can be used by fieldworkers to examine aspects of

their own caseload management: and provide managers with sufficient information about workloads for the purposes of accountability and planning.

Here we describe the use of regular and systematic feedback to front-line workers and their line managers in a scheme where fieldworkers have been provided with a greater degree of autonomy than is usual. The Community Care Scheme for elderly people involved devolution of control of resources to individual fieldworkers so that they could establish individually tailored packages of care to enable very frail elderly people to remain in their own homes (Challis and Davies, 1985). The scheme involved both enhanced case management, through a responsible key worker, and improved service content, by means of a budget which could be deployed more flexibly in establishing a package of care.

Systematic recording was developed which provided computer-readable information on each client in the scheme. The success of such a system is dependent on the commitment of the social workers providing the information. In order that their involvement be sustained, and to maintain a two-way information flow, it was seen as essential that they regularly received in return a clear and concise presentation of information on the clients they serve. It was primarily for these reasons that a standard method of feedback was developed.

The recording system and feedback

Three types of record are completed for each client in the scheme, an assessment schedule, regular case reviews and costings. The assessment form provides information on the client at entry to the new service, covering factors such as mental and physical ill-health and social support. The case review form is also completed at this stage, and

subsequently at three monthly intervals until closure. It provides information on the management of each case - client problems tackled, social worker activities, outside agencies contacted and the services received by the client. The cost form provides a quarterly breakdown into the different types of SSD cost incurred for each client. A full account of the monitoring system is given in Challis and Chesterman (1985)

These records provided the information used for completing the feedback forms. The first batch of these forms was for the six months ending 30th September 1983 and since then they have been produced at six monthly intervals.

Feedback is of essentially two types:

- i. Information given to individual social workers about their workload.
- ii. Information at more aggregated levels such as local authority districts or areas with several staff.

The feedback is presented in a standard form of two pages. The material is self-explanatory, and an example can be seen in Challis and Chesterman (1986). It is divided into four sections.

Basic caseload information:

This provides a description of cases opened and closed and the outcome of closed cases.

Information on new cases opened:

This gives information on the level of dependency of new cases which indicates the extent to which the service is targeted upon the most needy cases. It also provides information on the level of informal support available.

Case review data:

This is a modified version of the document developed by Goldberg and Warburton (1979). It provides information on the ongoing activity of

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the social worker and the package of resources received by the client under five headings:-

1. client problems tackled
2. social worker activities
3. outside agencies contacted
4. resources required but unavailable
5. practical services used

Cost information:

The average weekly SSD cost is given for each quarter, together with a breakdown of how this is distributed between its principal components, such as home help, day care and additional new expenditure. All costs are reduced to a common price base set at 1st December preceding the current cost period.

Types of feedback provided

Individualised feedback for the social workers:

These are personalised statistical returns, providing a summary of the work done during the last six months and how it compares with the previous six months. All social workers are also given a feedback form for the whole authority. This provides them with a useful yardstick through which they can compare their own position with that of others. Thus if the level of dependency of newly opened cases on one caseload appeared rather lower than elsewhere and there were no known reasons for this, the social worker might wish to re-examine the referral procedures.

The feedback form provides the social workers with a summary of their workload. Factors such as high caseload, rapid case turnover, high client need and a high frequency of behaviour problems all contribute to this workload.

The feedback form can also help to provide explanations for changes such as an increasing average weekly client cost. Thus, it can indicate how cost increases

have been in response to a rise in the dependency level of new cases. Information about client problems can highlight certain areas of difficulty to an individual worker, or as we discuss later, to a team. For example, if an individual fieldworker's caseload indicated a high proportion of cases with problems of mental confusion, then this might indicate a need to initiate closer working contacts with the psychiatric services. This information, combined with that about social worker activities, contacts with other agencies, uses of resources, and costs can provide a sound basis for effective staff supervision.

More aggregated feedback:

The same approach was used to aggregate the work of several staff. As an example, one social worker and her assistant covered a region in Kent which could usefully be subdivided into an urban patch, relatively well endowed with resources, and a rural patch comparatively lacking in resources. Feedbacks were prepared for each patch to make comparisons between the areas possible.

Regular feedback of data, both for the whole authority and on different sub-areas, can point to those places where extra support and stimulation of the scheme may be needed to maintain or improve standards. By comparing results for successive 6 monthly periods, any systematic changes become readily apparent. For example, the level of dependency of recently opened cases indicates the extent to which the most frail and needy clients are being served. The case review data can provide indicators of good practice in the case of frail elderly people, such as the extensiveness and frequency of regular reviews and reassessments of cases, the nature and type of contacts with clients, their carers and different sectors of the NHS. Information about client problems can sometimes suggest the need for system-wide responses rather than at the level of the individual case.

Evidence of several workers with considerable problems (on their caseloads) of say incontinence, or carer stress, might indicate the desirability of developing a special laundry service or establishing a carer support group.

The cost information which is given provides an indicator of the overall cost to the Social Services Department and to its constituent parts such as Day Care or Home Help. The feedbacks make it possible to easily compare these through time; and comparison between areas can also indicate how local factors, such as area characteristics and levels of resources, influence the way care is provided.

Information collection and analysis

The information has been analysed and fed back using the Research Unit computer at the University of Kent, an upgraded Digital VAX 11/750. The original method of processing the data reflected some of the difficulties of batch input of data. Completed records were sent to a central point, checked and prepared for coding. Information was then coded onto data sheets, punched onto magnetic tape and subsequently loaded into the computer. This laborious and cumbersome process was circumvented by the development of software to enable direct data input at the central point. There remain five further stages in the production of feedback.

- i. The data is input to a data base using the *Scientific Information Retrieval system* (SIR) (Robinson et al, 1980). This system is ideal for handling hierarchical data and non-rectangular data sets of unequal size such as this. The present data set consists of an assessment document, a number of case-reviews and a number of costing sheets for each case, the precise number dependent upon the length of time they have received the service.

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This procedure includes an inbuilt check on errors from coding and punching.

(ii) The information required for entering into the feedback forms is computed and written into data files by means of SIR retrieval runs.

(iii) The data is then read from these files by means of a fortran program which writes a series of feedback form images, stored in the main-frame computer.

(iv) The images are transferred to a microcomputer and then converted automatically for use on a word processor.

(v) The forms are finally run off as hard copies from the word processor printer.

This multistage procedure is lengthy, resulting in considerable delay between receiving data from schemes and providing feedback forms. Clearly, individual workers require more immediate access in a local authority setting to minimise delay. Nonetheless, there are some advantages to the present method:

i. The checking of data by a single person allows some oversight to be maintained over the way monitoring forms are completed, therefore enhancing reliability. There is inevitably a little variation, and individual workers can be advised if their method for completing the forms appears to diverge from the standard procedure adopted.

ii. The storage of data in a SIR data base allows it to be retrieved easily for other purpose other than feedback and to create files for use with other statistical packages such as SPSS, when required.

iii. The conversion of data from SIR output files to feedback form image format is quick, and by running the forms off a printer, no work is required

either in copying data manually from SIR output to feedback forms or in subsequently having the format typed up. The risk of copying and typing errors is also removed.

Improving the approach

The dependence of field social workers, albeit in a special scheme, upon a University based computer to provide them with feedback material about their caseloads, is obviously less than ideal with the inevitable delays that this can cause. However, the recording system with feedback is still at the development stage, which makes the arrangement acceptable.

Nonetheless, the whole approach is one which could be readily adapted to suit more advanced facilities in area offices. For example, with the introduction of micro computers, linked to a mainframe, into SSD area offices, further improvements could be made. Data from the monitoring forms could be typed in directly by a clerk for storage on a diskette for each social worker. Software could be developed to allow the social worker to obtain immediate up-to-date access to information on current activities. In particular, graphic representation of material would make it more readily comprehensive by replacing some tables, such as those concerning caseload mix, by histograms and pie-charts.

One shortcoming of this procedure might be the greater reliance placed upon individual fieldworkers to ensure they keep their records up to date, although one major incentive for them to do so would be the provision of correct information for their own use. For the purpose of aggregating individual worker material for management information, a simple method of data transfer from diskette to mainframe computer could be easily developed for creating a broader data base.

Conclusion

The use of feedback forms has helped to keep fieldworkers and management in touch in a situation where fieldworkers are given a high degree of autonomy. Nonetheless the method of preparing and processing this information could be substantially improved. For example, there is still considerable room for making the production of feedback forms more sophisticated, to allow a more prompt and up to date response to enquiries at fieldworker or manager level, and for the use of advanced software to render information and comparisons more immediately intelligible.

The authors are both members of the Personal Social Services Research Unit, University of Kent at Canterbury

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Which Feedback? - A Consumer Report

Robin Saunders

I have been involved with the PSSRU's use of a computer-based records system since I set up the Dover area's Community Care Scheme in 1982. I am now still responsible for running that scheme but in the role now of Senior Social Worker, with an involvement in the S.E. Kent Planning Group for Elderly Services. Consequently, I am in a position to see the merits and de-merits of such a record and feedback system from the viewpoint both of a field social worker and of a middle-manager.

Advantages

The biggest single advantage of the feedback from computerised records is that it starts to provide worthwhile information on what activities are being done, what are the characteristics of the clients receiving services, whether the clients of one worker are comparable to those of another or in what way they differ, and what is the pattern of change in clients, their problems and the cost of services. With limited social work time available, one is more able to see if that time is being usefully directed, how clients' problems vary amongst caseloads, and if particular problems of severe disability or confusion are increasing, so influencing the availability of resources between social problems towards more financially demanding health-related ones. In that respect, our Dover Scheme is co-located with primary health care teams in a health centre; and the availability of such information when dealing with nursing officers over sharing care raises discussion above the level of informed guesses or prejudice.

Now that I have been working with other social workers for elderly people who themselves will carry long-term cases jointly as part of the Community Care Scheme, I appreciate the fact that there is a structured format to collect the information which acts as the basis for a common assessment. Naturally the present assessment schedule is not perfect in this role and a local working party is currently trying to devise an

assessment form that would be usable by a range of different staff - home help organisers, social workers and occupational therapists. However, the present model is far ahead of anything previously used in Kent, and indicates the value of ensuring that any subsequent model is capable of being part of a computerised records system, and that the information collected is valid and reliable. One other attraction of the recording scheme is that the input forms can readily provide the basis for the written client file, so avoiding duplication of recording to suit both the file and the computer, with a standardised initial assessment record and a regular, consistent style of review, costings and pattern of service delivery records.

Problems

These then are the advantages. Life is never that easy, however, and I have seen from the way that the recording system has been implemented in Kent, as the Community Care Scheme has widened its scope across the County, that there are problems. The main one is the human resistance to increased recording.

In the early days of the project, the information was of value to fieldworkers if only because it provided concrete evidence from which to argue for extension and development of the scheme. Now that it is part of the mainstream of the County's services to elderly people, that imperative of ensuring survival has been lost.

However if, as I indicated above, all recording for social workers was standardised on lines compatible between a manual file and computer then it would become less demanding.

Educating Management

Another problem that has shown itself is the lack of understanding by managers of the value of the information that they now have available, and how to apply it. Fortunately, Kent is devolving the responsibility for medium term strategic planning for services down to its six area management teams, so that through force of circumstances they are beginning to be aware of the need for this information, although the education process still has a way to go.

Equally, at the level of team management, the way the department's money is being spent daily and on which clients is not really accepted as an agenda item, and more education is needed here as well. Part of the problem is the delay in obtaining relevant feedback - sometimes 6 months in arrears. Kent is currently involved in providing a computerised Management Information System, but this is totally isolated from the Community Care Scheme Recording System, and not as flexible or responsive to its users varying needs. This then is not really a fault of the PSSRU model, but of not providing locally the right technology for local access.

Conclusion

I would say that the use of computerised records can be a "good buy"; but you need to ensure it is integrated with other social work recording systems, its implementation is thought through fully, and with an adequate investment of training for staff at all levels to use the information. Then the information will be helpful at the fieldwork, middle and senior management levels.

Potential Uses of Telecommunications in Rural Hospital Social Work: An American Analysis

Sharon E. Kava and Walter F. LaMendola

The social work profession has been slow to integrate computer technology into its practice, particularly in rural settings. Yet it is in these settings where computer-based systems of telecommunications have the greatest potential for useful application. Rural social workers face a variety of problems unique to their setting, including scarce resources, widely dispersed client populations and professional isolation. This paper will focus on the problem of professional isolation and suggest possible solutions through the application of telecommunications. Seminal ideas were developed from a hospital scenario reported by Wandel Winn in (Geiss and Vishwanathan, 1986), and from one of the authors' own experiences as a rural hospital social worker in the United States [working at Platte County Memorial Hospital and Nursing Home in Wheatland, Wyoming: town population approximately 4,000]. Proposed solutions will be followed by a discussion of the advantages and disadvantages of using these systems, in order to assess the practicality of working with computerised networks in rural areas.

Winn's Hospital Scenario

Winn's scenario began with rural hospital worker Mark Baxter being confronted by his administrator for not having an adequate emergency service programme. He was told that this deficiency was endangering the accreditation status of the entire hospital. Mr. Baxter found his programme to be adequate, and later discovered that the criticism was based on a "prevailing standard of community care". He was unfamiliar with this standard and suddenly felt at a loss. He was overwhelmed by a sense of isolation.

Inadequate information and lack of colleague support are two of the most

Inadequate information and lack of colleague support are two of the most common symptoms of professional isolation that face rural social workers...The potential value of a telecommunications system in addressing these worker needs ... is considerable.

common symptoms of professional isolation that face rural social workers. By definition, the rural aspect of their situation implies physical barriers of distance and rough terrain between workers and the mainstreams of information and colleague support. While rural populations are sparsely populated, basic service needs are not substantially different from those of more urban areas (West, 1978). In fact, rural workers tend to need an even wider range of practice skills as they find themselves expanding their area of service and activity to meet community needs (Ginsberg, 1976). In delivering these services, workers need at least the same kind of supports as urban counterparts.

Protocol and Professional Standards

One author's experiences in setting up a rural hospital social services department demonstrated that the need for information can be paramount. Seemingly endless questions about purpose, protocol and professional standards can arise, no matter what the level of worker experience. While rural practice settings might seem more simplistic, professional standards are no less lax. How extensive should the scope of the service be? How are referrals for service made and who makes them? What are the current standards for practice and accreditation? And most importantly, how can this information be obtained?

Case Supervision

Once the working foundations of a department are set in place, supervision for difficult cases can be the most pressing concern. For the lone professional social worker in a setting, who assesses the quality and completeness of service? Should more be done? Are the interventions appropriate? What degree of follow-up is indicated? Are legal liabilities being adequately addressed?

Membership of professional organisations and subscriptions to relevant journals such as this one can provide general information and support, but do not begin to address the problems inherent in everyday practice. Information resulting from such alliances is frequently not timely nor specialised enough to serve as more than a helpful reference. In the author's situation, a graduate social worker was eventually located to provide quarterly supervision. She lived 80 miles away, and her fees for consultation and transport cost the hospital a total of \$1,800 a year.

The potential value of a telecommunications system in addressing these worker needs for information and support is considerable. An information/support network could be established with other rural hospital social workers throughout the region. Telephone calls that permit only one-to-

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one discussions or trips that encompass great distances for colleague contact could be better replaced by computerised networks. A teletext terminal, which consists of a printer attached to a computerised keyboard, could be installed in individual offices across the region, allowing messages to be sent back and forth on a fairly regular basis, sharing ideas and offering support. Workers in this kind of network could respond to one another as their time and interest allowed. On a greater magnitude, there could be periodic teleconferencing through a special telephone system, which would allow several individuals to converse freely with one another on the same line. Pre-designated topics of general concern, such as changes in federally funded insurance programmes, could be aired and discussed for the benefit of everyone. Special interest groups within the professional community would have a chance to develop.

Developing strong rural social work

Not only would individual social workers gain through these computerised networks, the profession as a whole could develop a stronger rural faction. Henry Hyde, associate director of *Rural America*, an advocacy group that includes rural social workers, stated that 'the current overlap and fragmentation in rural development problems is intolerable' (Martinez-Brawley, 1981). With a telecommunications system established among professionals in the field, there could be a stronger sense of identity and co-ordination in planning. When policy decisions arose that affected widely separated but concerned workers, rapid communication through computerised systems would allow the development of consolidated positions. These positions could then be presented to organisational leaders and decision-makers in time to be considered in policy or programme formulation (Polcyn, 1973). Individual workers could

strengthen their position and the profession by participating in network groups that would focus on developing, researching and directing such computerised efforts. While addressing their own concerns about information and isolation, they would also improve their understanding about the impacts of information technology on of work in rural societies (LaMendola, 1985), and thus would be able to adjust services accordingly.

Providing expert information from distant consultants

Similar arrangements could be made for support and supervision by distant consultants, particularly in crisis situations. Rural settings do not diminish the urgency or the severity of crisis, and worker expertise or knowledge might be less than adequate to provide effective client service. A teletext, or better still a computer radio that could be hand-held and provide voice contact, could deliver expert information on the spot and in an on-going fashion. Side-stepped would be the frustrations of finding taped recording in response to urgent telephone calls.

Tele-conferencing

More far-reaching network systems could be employed for information updates and continuing education. Services and workshops could be arranged by such station confederations as the *Western Educational Society for Telecommunications*. Through this system the Society of Hospital Social Work Directors could, perhaps, offer a computerised bulletin on rapidly changing policy matters or 'hot' administrative pointers that could be accessed immediately from anywhere in the country. Distant conferences, such as the recent one on social work in the east coast state of Maine, could be joined from the comfort

of one's office in the western state of Wyoming. With a more complex system there could even be opportunities for questions and discussions, with expert panels addressing actual rural problems from their audience. Nationwide, an all-inclusive information and referral service could be implemented. Even in small towns such as Wheatland, with a population of 4,000, patients can need arrangements made in states as far as 1,000 and 2,000 miles away. Effectiveness in the quality of the service could be immensely enhanced.

Planning to avoid potential problems

Such idealistic plans! Would they be the cure-all they seem to be? Or are there complicating factors that would add unexpected difficulties? Contemplation of these issues in advance could avoid potential problems.

The proposed applications of telecommunication techniques could effectively address the rural social worker's need for information, and help dissipate feelings of isolation. An increased flow of information would fill specific gaps in knowledge and provide a broader understanding of the issues. With a more complete awareness of any given situation, workers could conceivably increase their problem-solving abilities, while being exposed to solutions not otherwise obvious (Hudson, 1984). Greater access to information could also bring expert knowledge to a local level, and increase the overall degree of service sophistication. Just knowing help was available when needed could also increase a worker's general morale (Hudson, 1984).

In assessing the practicality of implementing telecommunication systems in a rural setting there is a need to weigh the potential advantages against likely concerns and disadvantages. The most obvious

Rural Telecommunications...

consideration would be the financial outlay for installation and maintenance of actual telecommunication systems. This alone could be prohibitive without some kind of group sharing or subsidy, as costs of this nature are almost completely independent of the traffic carried. Users would need to finance the total amount of the time they were connected to the system versus the brief intervals of actual time the system was in use. Attempts to charge users solly on the amount of time used could lead to concerns about infringements on user privacy (Laver, 1975).

Confidentiality

Of further consideration is the question of confidentiality in the use of telecommunication systems. While using such a system, one could be open to accidental crossed connections or clandestine examinations. If the system was used to transmit data, there would be the potential for loss, illicit modification or misuse of that data (Laver, 1975).

Other disadvantages related to the use of telecommunication systems are not as obvious but just as valid. These are the costs of human frustrations that can arise from attempting to use the system. Delays, malfunctions and a lack of personal contact with colleagues could be a source of irritation. In-house conference participation could eliminate the occasional opportunity to leave town. This is not a luxury to be underestimated in small towns, where personal visibility is high, and long distances can make travel timely and infrequent (West, 1978). Further frustration could arise from workers interpreting the data that they receive in such a way as to be misinformed. Their misrepresentations could then be taken as 'fact', without the benefit of judgement or consideration. This is a common problem with data gained through technological means (Vallee, 1984).

The potential advantages of telecommunication systems would affect not only individual rural workers, but agencies and communities as well. Individual workers have the ability to access information by way of bulletins, training or educative programs and teleconferences, as needed and desired.

With this opportunity to meet more specific information needs, the worker could be more up-to-date and efficient in delivering services. This would help alleviate the problem of attending scheduled workshops or training programmes on the basis of their availability versus content. In such cases as the former, the information that is being transmitted has less chance of being absorbed and retained by the worker and could quickly be lost (Kearsley, 1985). By using telecommunication systems the expense and inconvenience of travel can also be minimised, and would leave the worker with more personal time away from work.

More training for less cost

Employers would stand to gain from telecommunication systems by having more highly trained workers for less cost, as transport and travel expenses often represent the largest cost in most training budgets. Conferences, workshops, consultation sessions and continuing education programmes could be transmitted to remote rural areas through telecommunication systems for less than the cost of travel, over the long run (Kearsley, 1985). Not only would educational expenses decrease; the rural worker could be more productive with new information, while spending less time away from the work setting (Kearsley, 1985). The ability of the worker to obtain both information and support by connecting with other systems in this manner, does more to conserve funds than the traditional attempts to network by physical means (Geiss and Vishwanathan, 1986).

Benefiting the community at large

The increased training and positive morale a worker could gain by accessing others through a telecommunications system could benefit the community at large, as professionals who feel adequately trained for and supported in their work are apt to remain longer. This would reduce the costs of retraining new workers, or sufficing with poorly prepared lay workers, and would thereby be less taxing on the resources of community funded programmes. Communities and citizens utilising the services would stand to benefit from increased worker time, as the less time the workers spent looking for information on which to base decisions, the more time would be available for attention to individuals (Brauns and Kramer, 1984). The provision of, or access to, more resources would be another indirect benefit. These resources could be in the form of service-related opportunities, or actual time-sharing arrangements on the system itself. In the long run, particularly with community involvement, the service focus could eventually shift more towards preventive rather than problem-solving realms of practice (Geiss and Vishwanathan, 1986).

Common goals

Advances in computer technology are bringing it closer in line with social work functioning. Computer and communication technologies are beginning to fuse together into a blend of information and communication orientations, and it is these orientations that are the foundation of social work interaction (Kochen, 1981). Both telecommunication systems and social work relationships share the common goal of linking together individuals and/or organisations to create useful alliances. In both cases the communication of information is a

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crucial element. Telecommunication systems are designed to transmit needed or desired information from one place to another. Social workers must be able to communicate current and accurate information in order to be effective helpers. As society becomes more complex, workers will become increasingly dependent on ready access to information in order to deliver the best possible service (Geiss and Vishwanathan, 1986). The blending occurs through the similarities of both intent and approach.

Empowerment

The use of telecommunication systems and social work relationships also share the similar goal of empowerment. Both processes serve to provide information to individuals, groups or systems for the purpose of providing those individuals with a way of bettering themselves or their situations. As an example, regions receiving educational programming on agricultural issues are better equipped to improve their crops. Correspondingly, social workers who have access to current information and support systems become more confident in their own decisions and judgements. In each case information can increase the power of the recipients to manage their own situations.

Conclusions

In summary, computer technology has increased in sophistication to the point where it can now address some of the communication and information needs inherent in social work practice. The range of capacity evidenced in current telecommunication systems is particularly well-suited to addressing these needs. Information can be transmitted almost instantaneously over great distances. Individuals with similar interests living in separate regions can be linked in small groups or large conferences through voice and video. Rural social workers struggling with

concerns of inadequate information and isolation can utilise the linking of these systems for a natural and effective solution. The considerations of financing, confidentiality and adaptation to an unfamiliar system are outweighed by the benefits of long run savings,

enhanced service effectiveness and the increased cohesion among rural workers. With foresight and planning, the social work profession can begin to incorporate the advances of computer technology for the improvement of its own practice.

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Viewdata

Alistair McNicol

One of the components within the range of computerised facilities which Strathclyde has been developing over the past three years as part of its office automation project has been the use of *Viewdata*. The system is called *Themis*, which was produced by Thorn EMI and is marketed by Honeywell.

Viewdata is a means of storing, manipulating and retrieving computer held data, and conveying it over air waves or ordinary telephone lines. The familiar domestic television set adapted to accept *Viewdata*, or low cost business sets designed for the office environment, may be used as terminals. The three most popular public *Viewdata* services known to millions of people in the United Kingdom through their domestic T.V. sets are *Prestel*, *Ceefax* and *Oracle*.

Initially the Region's Public Relations Department had the main responsibility for placing information on the system. This material consisted of press releases, Committee decisions, key reports and the Committee diary cycle. They also maintained the list of Regional Councillors, their ward district, committee membership, and the location, day and time of elected members' 'surgeries'. In 1984 and 1985 other Regional Council departments-Roads, Education, Police, Finance and Social Work have all placed information within the system, and this is available to all registered users.

Social work use

The Social Work Department's main use of the system has centred round the storing of a number of operational procedures relating to specific client groups such as offenders, children in care, elderly people, physically and mentally handicapped people. An extensive Welfare Rights Benefit check was developed in March 1985. Details of a wide range of residential, day care, domiciliary and community based facilities are also available. The information is structured in such a way as to cover the total resources available for each of the 12 new districts which are being set up as a result of the recent

Departmental Restructuring Report. This range of information will be available to elected members and fieldwork staff.

Development problems

During the development of the system a number of matters arose which have been widely experienced by other authorities who have introduced computerised systems into their operations.

Placing of procedural information on the system impacts on the administrative processes which exist within the organisation. Who is the information for, and who has the responsibility for managing and maintaining the system? In attempting to answer these questions two new mechanisms have been created. The editorial responsibility was transferred to the Assistant Director, Planning, and in addition each Principal Officer within the Regional Headquarters will have responsibility for overhauling, up-dating and ensuring the accuracy of procedures as they relates to their specialism. The editorial board will process this material and indicate on a weekly basis through a "What's New" facility what changes have taken place in the system, and which areas of client service have been up-dated.

A user's group will be established consisting of a range of staff at different levels within the organisation. It is envisaged that regular reviews of the usefulness of the material will be discussed and, where necessary, it will be modified in the light of consumer comment. It is hoped that this mechanism will ensure that fieldwork staff will be able to influence the shape and presentation of the information in a format that continues to meet their needs.

A high priority was given to the training of appropriate clerical and administrative staff in acquiring new skills. These skills not only included keyboard skills, but in addition knowledge of routing was required so that pages are inserted, amended and deleted in the correct order within the appropriate section.

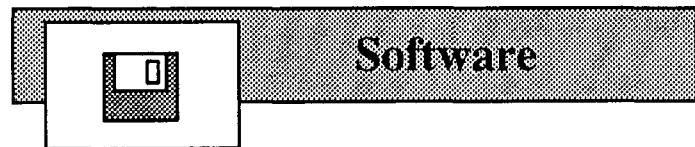
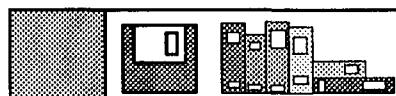
Another area for consideration is the amount of information which can be stored on a single screen. Our experience has been that a keen editorial eye requires to be cast over all the material to avoid overloading the screen. Otherwise there is a danger that the amount of material which has to be absorbed is too great and the presentation can lose its impact. The art has been to reduce the number of words to a minimum without destroying the sense of the material.

The implementation strategy envisaged in restructuring is that the Regional Headquarters will be linked to the twelve newly created districts and the 60 area teams which serve the two and a quarter million population living in Strathclyde.

We are attempting to isolate the costs and benefits of the *Viewdata* system in comparison with the former methods of communication - numbers of documents photocopied and the costs of distribution to all service outlets. This task will become easier as the restructuring exercise proceeds.

The experience gained also confirms the need to re-design administrative systems in order to accommodate new practice. The opportunity now exists to codify all existing social work procedures across the Region, and the size of the workload involved has already been identified. If this is considered technically feasible and professionally desirable should Social Work Services Group (S.W.S.G.), D.H.S.S. and the local authorities proceed to explore the setting up of a national system which would ultimately be available to all local authorities? Could authorities bid for a specific area of client service where their services are well developed and maintain a national standard of excellence on behalf of all authorities?

Alistair McNicol is Divisional Organiser in the Glasgow Division of Strathclyde's Social Work Department



Software

SPP - Statistical Package for Personal Computers, Version 5.1

Written by P. Royston
Marketed by Timberlake Clark

Available for various machines, this article based on use with the Apricot xi20

This package, originally developed to run on the Commodore Pet in compiled BASIC, has been around for a number of years during which it has undergone a number of upgrades. Versions are currently available on the Commodore 64, 8096, 8032, 4032, IBM PC, Sirius, Apricot, Tulip, Future FX-20, HP150, DEC Rainbow and Burroughs B25.

Statistical options covered include descriptive statistics, crosstabulation, correlation, simple and multiple regression, analysis of variance, non-parametric tests, plots and histograms, normal probability plots and principle components analysis. Missing values are allowed in all analyses.

After almost a year's experience in its use we have found the package capable of dealing with a variety of applications in the setting of a social work department research and planning section. Overall, the various statistical 'number crunching' modules of the package performed satisfactorily, although we suggest some minor improvements later in this article. Some problems and idiosyncrasies have been encountered with regard to data input, validation and editing. It was felt that perhaps a short note outlining these points would be of interest to existing and potential users of the package.

Data Entry

SPP statistics programs read data from files called 'statfiles', the structures of which are defined by the user. Data can be keyed directly into a statfile. The operator is prompted for each variable in sequence. Editing facilities are available but only prior to storing each record. Alternatively, data may initially be entered in files consisting of one record per line, known as 'worksheets' in SPP, prior to conversion to statfile format.

Data Checking and Validation

Various checks can be carried out on data by means of a (previously set up) record description file. Range, type, field widths and missing value codes may be defined. Where data is keyed directly into a statfile, validation is restricted to range and type checking only. The absence of field width checking during this process can allow invalid data to be written to the statfile undetected. Data validation procedures would be significantly improved if width checks could be carried out at this stage. In contrast, the full range of checking and validation procedures can be carried out when converting a worksheet to a statfile. Any data items not conforming to the record description parameters would be flagged. The solution would therefore seem to be to follow this method if you require full checking procedures. However, a fundamental problem when using worksheets is the inability of the package to recognise the end of a line as the end of a record. This is caused by the package treating the entire worksheet as a continuous stream of data. The result of this is that if any data items are mistakenly omitted during input, data will be scrolled between cases to 'fill up the blanks'.

Editing

It is claimed that the 'modify statfile' command "allows you to make manual changes to data from an existing statfile . . .". However, attempts to use this command invariably caused the program to crash displaying an unhelpful BASIC error message. Section 2-9 of the manual urges users to inform Timberlake Clark of these occurrences "so that we may investigate and rectify . . .". Despite this assurance, repeated telephone calls and letters to the company failed to produce any response. All editing must therefore be carried out with the data in worksheet form. This involves reconverting from statfile to worksheet and back, a tedious and error prone process.

Data Interchange with Other Packages

Data can be transferred between SPP and other packages in worksheet form. For example, the command 'COPY TO filename SDF' successfully moved data into SPP from dBase II. This feature is potentially useful where periodical statistical analysis is required of operational information held on a database system, eg. children in care details. However, in practice some difficulties were encouraged:- As was the case for manual data entry to worksheet files, any fields with blank entries cased problems when the worksheet was converted to a statfile

Another problem arose from the fact that dbase II automatically deletes leading zeros from data items in a DBF



CASW Review

file. This causes problems with, for example, a variable with code values ranging between 01 and say 18. Specifying a 2-digit field width for this variable would lead to data errors when a statfile was created because values between 01 and 09 would have been transferred from dbase as single digit codes - 1 to 9. It also renders impossible use of the date calculation functions in SPP eg. the date 011085 would appear in a dbase field as 11085. SPP requires dates in either 4 figure (month and year), or 6 or 8 figure (day, month, year) for input to the various date manipulation functions.

Variate Operations

The package incorporates a wide range of data manipulation facilities. Some care is required when setting up and running a file of operations to ensure that the intended modifications have occurred. For example, to divide a data item by a numeric constant, say 365, (to convert age in days to age in years) it would be necessary to perform two operations:

$d = 365$
 $y = \text{number of days 'div' } d$

If the above modification had been attempted in one step ie:

$y = \text{number of days 'div' } 365$

the file would have been processed and a new statfile containing the data apparently modified as intended would be created. Inspection of the file would reveal that no changes in the data had taken place in spite of the absence of any error message.

Human Service Information Technology Applications

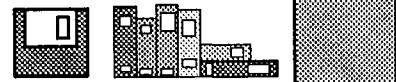
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Statistics Modules

As indicated above, a reasonably comprehensive range of statistical analyses are available in 8 separate modules. All procedures are menu driven and analyses can be carried out with little difficulty.

Much of the analysis carried out by us has been based on simple one-way and two-way tabulation using the statistics module SPP9 - 'Crosstabulation and Listing'.

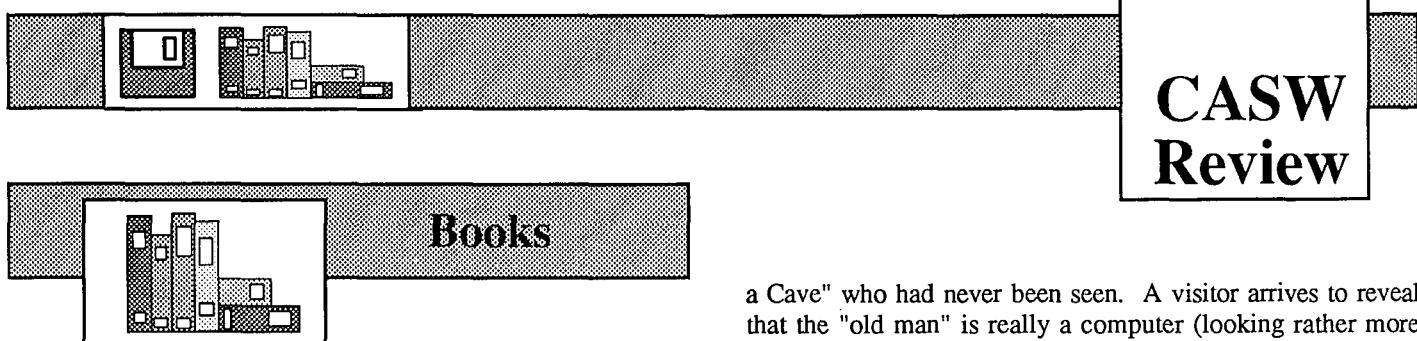
This module proved a flexible means of producing various tabulations. Table commands and row and column labels can be saved for future use. However, an irritating inconsistency exists in relation to this feature. Whereas table definition commands can be saved to a statfile via the 'S' option in the crosstabs menu, row and column labels must be previously set up in a worksheet file using the SPPO editor module. It would be useful if labels could be saved directly from the crosstabs menu. Another improvement would be the ability to set row label field widths independently of the column widths in the body of the table. Also, some provision for graphical representation of one-way frequency data in the form of bar/pie-charts would be a desirable additional feature.

Concluding Remarks

At £450 the SPP package represents reasonably good value for money bearing in mind that the facilities offered were until fairly recently only available to those with access to large mainframe installations running packages like SPSS (Statistical Package for the Social Sciences). In local authority social work/services departments' planning/research/information sections, the potential uses for this sort of software are fairly obvious. Perhaps not so apparent are the benefits social work area teams could obtain given local availability of the package. We have recently seen in social work a considerable expansion of the use of computers by non-administrative staff. With appropriate introductory training and backup it is felt that local availability of a package like SPP, perhaps on the area team microcomputer, would represent a more credible computer application and would contribute more to a 'research' based approach to social work practice than much of the gimmicky and trivial software applications which are becoming increasingly common in various social work settings.

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Gavin Mooney*

Planning and Development Section
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Department



Artificial Intelligence for Society

Edited by Karamjit S. Gill
John Wiley and Sons: £19.95

In July 1985 a conference was held to discuss the relevance of Artificial Intelligence (and Information Technology generally) to the enhancement of human competences. The papers to be found in this volume formed the background for the debates at the conference and cover issues ranging from the definitions of "intelligence" to ways in which the new technology may be used to help particular groups of disadvantaged people.

I think that most practitioners will find the early chapters of this book, with their emphasis on the philosophical debates about artificial intelligence, rather difficult. Even the chapters devoted to practical applications well known to helping professionals (such as aids to overcoming handicaps and learning difficulties) often assume a detailed knowledge of how expert systems work, the more frequently used Artificial Intelligence computer languages and methods of software development. Nevertheless I found the new approaches taken in respect of some topics refreshing. For example, in his contribution, John Pickering tries to answer the question: "What research is useful in respect of new technology as applied to disability?" rather than the question, more often addressed: "Which of the existing items of new technology are useful to disabled people?".

This book will prove useful to those academics and researchers who are planning to embark upon a project using the new technology. There is helpful guidance as to avoiding some of the easily made mistaken assumptions about what can be achieved by combining the microchip with enthusiasm and a social conscience. On the whole, the authors show far more knowledge of information technology than of the institutions of the society they are seeking to change; and minor slips such as referring to the United Kingdom's Department of Health and Social Security as the Department of Health and Social Services may irritate some readers.

Whilst in search of some relaxation after reading two of the more difficult papers in this collection, I happened to switch on T.V. to find a repeat of one of those early "Twilight Zone" films. It concerned a community which exists following a nuclear war on the basis of advice passed from an "Old Man in

a Cave" who had never been seen. A visitor arrives to reveal that the "old man" is really a computer (looking rather more like a very overgrown coffee machine than an I.B.M.). The survivors, on having the source of the counter-intuitive advice revealed to them, proceed to destroy the machine: with the consequence that they all speedily succumb to the hostile environment. If the many hopes for Artificial Intelligence contained in this book come to fruition, will society have more or less trust in the system than it presently has in its helping professionals? If the systems are used to benefit society, will we eventually be unable to survive without them? We are told in a footnote to one of the papers that its presentation to the conference was "enlivened for the audience by the exuberant presence on the platform of the speaker's three year old daughter". Whether or not Artificial Intelligence really will act "for society" will have to await today's three year olds being able to take the platform as adults. This book would suggest that they will be joined on that platform by an expert system or two.

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Social Services Department

Research Highlights in Social Work 13

New Information Technology in Management and Practice

Kogan Page
£9.95

This slim volume is one in a series co-ordinated by the University of Aberdeen, and contains 9 essays/research papers on the application of information technology in the field of social work.

How you react to a book of this nature depends upon whether you view research as the easy way out (academic ivory-towerism as opposed to actually doing a job), or as a useful background to your own work. Interestingly, this volume inspires both responses.

Its major weakness is that it attempts to address both the uses of IT as an aid to the management and administration of services, and the uses of IT in direct social work practice. In real life, the approaches to these two areas are quite different; confusing the two can cause problems, and indeed has done so over the last decade in some social work departments.

CASW Review

The chapters on "Welfare Benefits Computing" (Gareth Morgan) and "Microcomputers as Aids to Social Work Practice" (David Phillips) are excellent little summaries; but all of the essays which attempt to review the current position in the field face an impossible task, such is the pace of development in the IT world. They remind you of last year's Beaujolais Nouveau - thin, flat and by now a bit off. Particularly disappointing is the paucity of reference to the use of the so called Fourth Generation of computer languages, with the power they give to the end user at all levels.

This is a shame since the positive responses which the book invokes centre around several buried comments which strike home to anyone who has been involved in the field, and many of which can now be addressed by using techniques which Fourth Generation languages make possible.

The recurring messages are:

- before you start, define what your information needs are and get a clear picture of what you want to achieve (for the best exposition, see the essay by Tom Wilson - "Information Needs in Social Services - an Overview")
- ensure that you address the needs of all levels and disciplines within the organisation (see particularly Montgomery "Implementing and Managing Computerised Client Information Systems" and Gordon Wilson "Computers in Social Work - a Practitioners View")
- involve all staff at all levels in the development process (see Montgomery)
- investment is wasted unless you also invest in staff (Norman Smith "Social Work Education and Information Technology")

These arguments are critical to the introduction of IT in social work departments, and, when you find them in this volume, are well expressed. But you are left wondering if a whole book is warranted, or whether the overall message might have been better contained in two concise essays; one on Computerised Recording Systems, one on Uses of IT in Social Work Practice. For the review of existing applications and sources of expertise, how about an on-line bulletin board?

Peter Marsh
Coventry City Council
Social Services Department

Voluntary Organisations and New Technology

Ian Irving
Bedford Square Press/NCVO. £3.95.

This slim volume claims to demystify the subject of new technology for people who are considering introducing it into their own organisation. In the opinion of this reviewer (a new technology illiterate) it has succeeded admirably.

It has a very structured presentation - each chapter begins by stating what it intends the reader to achieve/understand and concludes with a checklist against which progress can be determined - if you do not measure up, self discipline urges you to go and repeat the chapter. Each chapter builds on the understanding being developed so that by the end of the book one has looked at the processes within the organisation and whether new technology can assist with these; if it can, examined the nature of the computer(s) required; and finally considered the impact upon the organisation and its staff.

An amazing amount of good jargon-free guidance is contained within the forty five pages of the book, including hints on how to remain in control of the processes of assessment, purchase and implementation in an unknown area which abounds with "experts". It is not, however, a D.I.Y. book as it clearly identifies those situations when outsiders should be consulted. In this context it includes addresses of agencies who specialise in assisting/advising voluntary organisations.

Whilst specifically written for voluntary organisations with a view to assisting them in making the most of their limited financial resources, it would be equally useful for any small organisation which is wondering if it is being left behind but does not want to be taken for a ride.

All in all an admirable little book that delivers the goods needed.

Terry Rogers
National Children's Home (London)

Contributing Reviews?

Potential contributors are invited to contact the Editor to discuss a possible item.

Reviews of printed material or software should not normally exceed 300 words.

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