

New Technology in the Human Services

*The Journal of the CTI
Centre for Human Services*

VOLUME 5

NUMBER 1

SUMMER 1990

Casework Information System

Mental Health Admissions Diagnosis

Community Teleservice Centres

Information Needs of *Caring for People*

More Software News

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New Technology in the Human Services

Published from:

CTI Centre for Human Services

Address for all enquiries and subscriptions:

**New Technology in the Human Services,
Centre for Human Services,
Department of Social Work Studies,
The University,
Southampton, SO9 5NH.**

Tel: 0703 592779 or 593536

Subscription Rates (Volume 5):

UK Personal £10.00 per volume (4 issues)

Libraries and Institutions £30.00

**Europe £UK (Euro Cheques Please)
Personal £12
Libraries and Institutions £30**

**USA and Australia US\$:
Personal \$20
Libraries and Institutions \$60**

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If you have not subscribed for Volume 5 now is the time to act. A subscription form is enclosed with this issue of the journal. Note that subscription rates **HAVE NOT BEEN INCREASED.**

The CTI Centre for Human Services is supported by IBM United Kingdom Trust and the Central Council for Education and Training in Social Work.

ISSN No.0959 0684

UP FRONT

Welcome to Volume 5 of *New Technology in the Human Services*. For the sake of continuity and to avoid confusion the cover colour and title have not changed this time! The journal has already used and discarded two titles - *Computer Applications in Social Work*, followed by the somewhat cumbersome *Computer Applications in Social Work and Allied Professions*. It has moved from its original 8.5" by 6" size to the current A4, and through a range of pastel covers (grey, cream, lemon yellow and apricot) to today's blue.

More significantly the content has also gradually changed. In the early days it was almost a technical journal, aimed at programmers, system developers, and the IT staff of our personal social services. When Stuart Toole started the journal in Autumn 1984, and followed up with a series of annual gatherings, those who subscribed and attended were in the main IT specialists.

From quite early on the journal sought to avoid being too technical for professional service staff, and editorial policy now is to make everything understandable to a reader with little or no technical knowledge. In addition, with the switch of responsibility for the journal to the CTI (Computers in Teaching Initiative) Centre for Human Services, we have tried to focus in part on education and training issues, without losing our relevance to those who have passed through their training days and now have to enable, deliver, administer or manage human services.

What's to come in Volume 5? The next four issues which make up Volume 5 will maintain this approach, though with several new developments. Issue 2, due for Autumn 1990, will be our first attempt at a substantial

software directory. In the past (and in this current issue) we have listed software, and at times reviewed it. In Issue 2 we shall offer a reference volume of software, with many new reviews, which we hope will become the first attempt at comprehensive coverage for the subject area.

Later issues will offer major papers on Race and Disability in the context of IT, as well as training material, including the story of a monitored trial using Ferret's Maximiser as the basis for teaching welfare benefits.

Caring for People. This first issue of Volume 5 is slimmer than usual, not a precedent for the future, but a sign that the production team is already preoccupied with Number 2, the software directory, which will either be the fattest ever, or the largest since Autumn 1987 when all the HUSITA abstracts for the Birmingham conference were printed.

There are two articles which look at matters related to community care and the Government's White Paper, *Caring for People*. One starts from the White Paper's requirement that local authorities should include in their community care plans for next April some information on what they are doing to stimulate the independent sector, whether voluntary group, non-profit organisation, or private company. For many years, well before the days of Griffiths, Lars Qvortrup has focused on rural communities, and their potential to support a range of activities which enhance their quality of life. In essence his argument has been that for rural communities to flourish, and to have the ability to cope with educational, welfare and other needs, they must have a sound, contemporary social-economic infrastructure. A valuable contribution to such an infrastructure

is the Community Teleservice Centre.

Another feature of the White Paper is the pressure placed on social services departments to develop "case management" as a system for managing and delivering services. This in turn creates a need for a wide range of very precise information, and without going into great detail, Bryan Glastonbury draws attention to the information needs which emerge if and when the recommendations of the White Paper, in particular case management, are implemented.

Programmers on Programming. Two papers are written by software authors. Ken Manning has written a computer program which is perhaps most usefully described as an aid to logical, coherent and thorough thinking about topics of professional concern to social workers. It allows the user, whether a practitioner or student, to

track through a subject (such as "anxiety"), checking up on definitions, descriptions and contexts.

Joe Ravetz has focused on mental health, and written a program which is part information about the topic, and part advice system for workers handling a case where action under the 1983 Mental Health Act may be appropriate.

In their papers here, both authors describe their computer programs, and tell us what they are setting out to achieve. They are part of a long tradition, most vividly illustrated in the pages of the PIP Newsletter (Programs in Practice), of individuals combining their skill at computer programming with their professional human service knowledge, to produce something useful.

Bryan Glastonbury

NEW JOURNAL!

Volume 1, Number 1 of *Computer Applications in Business and the Social Sciences* was published in January 1990. Contents include papers on:

The Scope and Nature of Research into Computer Applications in Business and the Social Sciences: Questions for Debate.

W.A.S.P.? What Statistics Computer Package? Towards a Flexible Expert System.

Computing Innovations in Higher Education Settings: Some Social Implications.

"CASE" - Computer Assisted Sentencing: A Computer System to Assist with the Sentencing of Offenders.

Creative Thinking: How Computers Can Help in the Process of Problem Solving.

Macroeconomic Modelling on the PC: the Case of the PC Ready Reckoner.

The Journal is edited by Richard Welford from the Management Centre, University of Bradford, Emm Lane, Bradford, West Yorkshire, BD9 4JL. The publisher is European Research Press Ltd., and subscription rate is £75 per annum. Directors of several CTI Centres are on the Editorial Board.

TOWARDS A CASEWORK INFORMATION SYSTEM

Ken Manning

The purpose of this article is to inform interested people about a new computer software development that has been designed to facilitate casework.

Background:

Recent research findings and their implications in *Social Work Decisions in Child Care* (1986) expressed concerns about the delivery of social work in connection with child care and family problems. What makes effective practitioners is a subject that must concern us all. Practitioners are having to cope with time constraints, continuously changing high case loads and a range of complex problems.

It is unrealistic to expect everyone, irrespective of age or experience to be knowledgeable about all the problems encountered by social workers and have all the solutions to resolve them. Yet clients expect practitioners to deal with unfamiliar problems in a competent and effective way.

Two difficulties that add to the dilemma are that cases, for many worthwhile reasons, are being processed through the system faster than busy practitioners can acquire the knowledge to deal with the problems. Similarly the research noted that there was a serious lack of information and guidance available to help them resolve these problems. It also confirmed that pressurized casework did not lead to greater efficiency.

Another publication, *Decision Making in Child Care* (1987), found that much social work involvement was based on control and constraint rather than planning based on sound assessment and rehabilitation. It suggested that planning was a primary function of good casework and someone should assume responsibility to ensure that cases are planned properly.

One of the difficulties to planning is that the nature of social work knowledge is so diverse

and complicated that the milieu of information becomes very difficult to retain in any consistent and constructive format. However, it was recognized that a sophisticated resource was required to:

- establish a common knowledge base;
- support planning initiatives;
- assist with understanding problems;
- improve assessments;
- enhance methods of handling problems.

It perhaps should be appreciated that the preparation of such material would be a very time consuming operation. But then problems of communicating this information to practitioners would be hampered as the staff:

- are decentralised;
- cover a twenty four hour working period;
- have holidays, sick leave and weekday rest periods;
- change jobs or leave the department.

One solution to improve communications which is being increasingly used, is the utilization of computer technology. Information relating to training and practice could be stored on computers, which can then be installed at suitable locations. This facility can make an ideal in-service training resource as it can be continuously available, quick to respond, repeat information accurately, and be very cost effective. It can also bring enormous benefits to both practitioners and training departments in the way the computer acts as a communication link between groups.

It would certainly be advantageous to store information relating to case management. In attempting to do this the question arises: "What type of approach should be used?" Originally, the concept of an expert system seemed ideal. This is where the computer asks expert questions, the practitioner types in answers, the computer then analyses the data and presents its recommendations. But the validity of this approach was questioned in *New Technology in*

the Human Services some time ago (Toole and Winfield, 1986). The article highlighted the fact that busy social work practitioners would be reluctant to use a program that required the time consuming operation of typing in a lot of case information. They would also be unhappy to surrender the responsibility to make casework decisions to a computer. It went on to suggest that a knowledge based approach might be a better alternative as this simply provides the information for practitioners to read. Certainly a case management information system that adopts a knowledge base approach would be of great benefit to practitioners and would not detract from their depth of experience, case knowledge and local community awareness.

After establishing the idea that it would be desirable to have instant access to a pool of information related to casework, the next step was to develop it. Finding the information and developing the idea was more difficult than first imagined. It has taken years of work and has involved studying many areas, for example social work, psychology, psychiatry, criminology, business management and computing. Although the project is now well developed, it does not claim to be a definitive information guide, rather it is a growing library of information that tries to provide some working knowledge about problems facing social workers.

Introduction to the System:

The system is really like an empty shell that can be filled with information from any subject area and compiled into a computer program. Currently, this process has been applied to develop a casework information resource. The whole framework comprises of individual programs that combine to create a comprehensive casework planning facility. The system has the ability to inter-link between these programs, thus creating the impression of being one large unit. The information required for this casework project has not been underestimated but while there is an urgency for quantity there must also be concern for quality. It has been possible to incorporate these two factors as the project is based on a multi-modular framework. This means that the quantity of information can be increased by

simply introducing new modules as they are developed. It is possible to expand this information still further as the system has the facility to allow commercially developed software to be attached to it.

Each program structures the information into clear categories and presents the information through a hierarchical order of branching menu and text screens. For example, the first menu is the main outline of the contents of the program. To obtain more details simply select one of the options and the program will move to the next level and so on throughout the program. In doing this, the hierarchical levels also act as help screens to prompt, clarify and organise to the required level.

The system is totally integrated but for descriptive purposes it can be divided into four broad sections. Within each there are smaller divisions which have a slightly different purpose so that each application should be viewed to ascertain its function and usefulness. The following descriptions give a brief outline of the different sections:

1. Case Planning Section: The case planning program fronts the system as other programs develop off its main stages. These are:

- Client records inventory program;
- Information on behaviours (various);
- Problem assessment program;
- Admitting children into care program;
- Generating a plan;
- Intervention programs (various);
- Evaluating resistance program;
- Implement the action program;
- Management programs;
- Supervision summary program;
- Report writing information;
- Problem solver program;
- Project management program;
- Commercial programs (various).

Each of these stages has been structured into a logical order from gathering information to closing the case. This format allows casework to be processed through an arranged sequence of stages that transform case problems into objectives to be achieved.

INDEX OF PROGRAM

MENU	MENU OF PROGRAMS	LEVEL 1
Instructions		Anxiety
Information	Case planning	Stealing
Administration	Client inventory	Achievement scheme
(Demonstration)	Problem assessment	Problem solver
Management	Children into care	Supervision summary
(Demonstration)	Generating a plan	

CASE PLANNING PROGRAM

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MENU	CASE PLANNER MAIN MENU	LEVEL 1
Stage 1.	Explore and investigate information	
Stage 2.	Analyse and assess the situation	
Stage 3.	Formulate interventions	
Stage 4.	Implement strategies	
Stage 5.	Evaluate progress	

INFORMATION PROGRAM

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MENU	INFORMATION PROGRAM	LEVEL 2
	<p>Although the Case Planning program is an individual module, it has the capability to interlink with many other programs. This makes it possible to expand the system to include an extensive network of supporting programs.</p> <ul style="list-style-type: none"> - CLIENT / FAMILY RECORDS INVENTORY PROGRAM. - INFORMATION ON BEHAVIOUR PROGRAMS. - PROBLEM ASSESSMENT PROGRAM. - RESISTANCE TO CHANGE. - ADMITTING CHILDREN INTO CARE PROGRAM. - GENERATING A PLAN PROGRAM. - PREPARING FOR ACTION PROGRAM. - INTERVENTION PROGRAMS. - MANAGEMENT UTILITIES. - SUPERVISION SUMMARY PROGRAM. - REPORT WRITING PROGRAM. - PROBLEM SOLVING PROGRAM. - RETURN TO MAIN MENU LEVEL 1. <p>CASE PLANNING :</p> <p>Use the arrow keys to move the menu bar to select information.</p>	
	<p>Use ↑ and ↓ to select an option, then press RETURN ↵</p>	

The programs present the information in the form of a check list for people to choose what issues are appropriate to their individual cases, as the process helps to clarify thinking and target areas of concern.

2. Assessment Section: The extensive research into assessment has evolved certain structures which shape the presentation of the material into constructive and logical sections. It has also shown that the process of assessment divides into two major elements:

(a) On one side there is a general assessment process that basically asks the *Who? What? Where? When?* type of question. Although the programs are more sophisticated than this, it is just to demonstrate the generic nature used to assess any situation regardless of the problem area.

The *Who? What? Where? When?* type of information relating to a situation can usually be assimilated very quickly. But the question that is most often asked is *Why?* This is the point where any generic assessment process reaches its limitations, as understanding why a situation has occurred requires more specialised information.

(b) This leads on to the other side of the assessment process, as those seeking to understand *Why?* might require more detailed information, for example:

- the causal factors surrounding the situation;
- the reasons for certain actions;
- explanations to verify reasons and to evaluate judgements;
- becoming aware of the strength of feelings which underpin the motivational drives that stimulate the behaviour.

Obtaining this information is not always easy as people are reluctant to expose their inner feelings and personal thoughts, or are unwilling to focus on causal origins rather than solutions to the problem. To assist in the analyses of the causal factors special information modules

have been developed to provide amongst other things a list of reasons why that particular behaviour might have occurred. In essence it provides options from which to choose. This enables fast identification of the factors involved or at the very least eliminates factors not involved, making further investigation a clearer and easier task.

The program continues by outlining general information about the behaviour, specific assessment information, explanations for the reasons, together with appropriate intervention strategies. Whereas the reasons and explanations bring a better understanding of the problem, the interventions try to provide positive suggestions on how to resolve the difficulties, thus improving a person's decision making and providing constructive help quickly.

This section is perhaps the most innovative of the whole system. Firstly, although the idea of individual databases has been formed in the past, this idea to build a library of structured information relating to behaviours, problems or situations for practitioners to use is new. Secondly, as mentioned earlier, there was a difficulty in choosing between an expert system or a knowledge based system. These programs combine the two as they provide an expertise on a particular subject area while adopting a knowledge based approach.

It is strongly recommended that the generic assessment process is used in conjunction with the interchangeable information modules relating to behaviours as one complements the other. These two elements combine to provide a very comprehensive assessment process which enhances a person's overall understanding while providing a sound base to work from.

3. General Intervention Section: This section is dedicated to developing an array of intervention programs. It is hoped that by providing an explanation of the basic principles of different intervention techniques, this will allow practitioners to quickly adapt the information to suit their individual case needs. By making intervention suggestions readily available it should reduce delays, and encourage a positive approach to casework by enabling people to learn and apply new techniques. This

should mobilise a person's capacity to help while facilitating direct work with clients.

4. Management Section: It is appreciated that often practitioners are promoted into managerial positions without being given the necessary training. Their informational requirements are no less diminished, but generally the demands of the post prevents them from acquiring the information. Therefore, a new strategy is being implemented to bring a wide variety of programs to help with the management of people and the delivery of their service.

For example, the whole case planning system can help improve supervision sessions. The information is presented in a constructive way, but because the questions appear on the screen, it makes it easier to confront more sensitive issues such as accountability. In general, using the system within supervision is recommended as a supervisor can blend the case planning information with practical experience, thereby avoiding unnecessary case analysis, and quickly focus attention on the important issues.

Users:

The system has been developed for practitioners in social work and probation, or students in training, while some programs may be used directly with clients. It is hoped that the resource will go some way in providing advice and training to the people who have the most contact opportunity with clients. This could be a parent, foster parent, residential worker or volunteer, and quite often these people are the least qualified. One of the common features of information technology is that it can repeat information endlessly, which makes it a useful time saver when experienced staff are replaced by inexperienced staff together with a changing flow of volunteers and students.

It is further hoped that the system will improve decision making and direct practice by encouraging a structured, logical and focused approach. By doing this, it should build confidence, help job satisfaction, improve efficiency and ultimately reduce the demand for longer term resources.

Another major application is related to training.

There is a self-learning element because those who use the system develop a better understanding and awareness of problematic situations. Those who use it regularly will begin to adopt the basic structures and apply them in emergency situations.

Running the Programs:

The programs run on IBM micro-computers and compatibles. They can be supplied on 5.25" or 3.5" floppy disks, to run on a floppy disk drive. Alternatively a hard disk version is available, currently requiring 1.3Mb of memory. The programs are easy to learn and easy to use. They have a similar uniform style of operation and utilize a highlight menu bar which is operated by the up/down arrow keys.

The programs are started by typing CASE and pressing the ENTER (Return) key. The opening menu screen presents a series of options that allow access to the various levels of information including entry to the other programs that are available within the system.

The operating procedures appear clearly on the screen, inviting users to choose one of the options. It would be considered worthwhile for new users to select and read the INSTRUCTIONS option first, as this explains how to use the system and prevents becoming lost in the network.

The first six stages of the menu present a structure to organise casework. Selecting any of these options will move you to the relevant information at the next level including other programs in the hierarchical order maintained throughout the system. The seventh stage, MANAGEMENT UTILITIES, gives access to information programs which support people in a managerial role.

Finally, it is realised that the system is based on a growing network of programs, but occasionally there may be a wish to access directly a specific program without needing to search through the whole system to find it. This can be achieved by entering MENU at the start (instead of CASE), which will list all the individual programs available within the system, and by making the appropriate choice it will

allow direct access to that program.

References:

DHSS (1986), *Social Work Decisions in Child Care. Recent research findings and their implications*, Department of Health and Social Security, HMSO.

ESCATA and Peper Harrow Foundation (1987), *Decision Making in Child Care*, ESCATA and the Peper Harrow Foundation.

Toole.S and Winfield.M (1986), *Expert Systems and Their Implications for Social Workers, Computer Applications In Social Work and Applied Professions*, Volume 3, No.1.

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Telephone: Coventry (0203) 415606.

Currently there are three options available to obtain the programs:

1. The purchase of all the system programs with a separate provision to upgrade later;
2. Purchasing individual or a special configuration of programs;
3. Leasing scheme with the inclusion of automatic upgrades.

INFORMATION, IT AND CARING FOR PEOPLE.

Bryan Glastonbury

Following the Government's acceptance of the main recommendation of the Griffiths Report, that community care services should be a primary responsibility of local authorities, the White Paper, *Caring for People*, was published (Cm 849, 1989). Under the planning timetable set out in the White Paper (5.9), local authorities must produce community care plans by April 1st 1991, with subsequent annual reviews to coincide with the normal financial planning cycle. The following paragraph, 5.10, lists the desired headings for the plan, one of which is about the information needs on which to base planning, and another about the information to be provided to service users and their carers. Unspecified but firmly implied under other headings are information needs linked to the detailed implementation of community care plans.

In order to clarify these information needs it may be helpful to note that the new policy embedded in the White Paper foresees two

developments:

1. The diversification of service (input) resources to encompass a wider role for voluntary and private activity, and (probably) reduce direct central government funding.
2. The provision of varied, imaginative, high quality community care services, carefully assessed and targeted, and sensitive to the needs and preferences of individual consumers. This parallels a continuing fall in dependence on residential care.

The Government's preferred method for achieving these changes is "case management", which has been defined as follows - "A case management system is usually one in which the provision of services to meet the needs of individual clients is the responsibility of one agency or worker. The services themselves may be provided by different agencies but the case manager coordinates the services and ensures

that needs are met" (Renshaw, British Journal of Social Work, 18).

As such case management is not a method of social work or service: it is a form and style of service management. Its viability, therefore, should be viewed in the context of its fit with wider SSD management frameworks, and with prevailing approaches to field level workload management. The White Paper describes case managers (para.3.3.2) as much like the current understanding of key workers. It sees (para.3.3.4) the main concerns of case management as identifying needs, assessment, care planning and delivery, quality monitoring and review. More tentatively (3.3.5) it sees advantages in linking case management with budgetary devolution. It does expect (3.3.6) SSDs to state their planned use of case management, including budgetary aspects, in their community care plans.

Case management has its origins in USA in the early 1970s. Faced with problems similar to those which led to the Seeborn Committee (eg. organisational fragmentation, need for better co-ordination), but with too much diversity of agency control and ownership to permit a British-type solution (ie. formation of SSDs), parts of USA looked to case managers to plan, overview and co-ordinate work with clients. These developments were not confined to specific client groups, though tended to be most necessary (and effective) for long term clients. Most of them are heavily involved with the accountancy/budgetary aspects of case activity.

Information Needs:

Given this scenario, we can begin to identify the sorts of information required, virtually all of which seems likely to be computer based. The dominant themes are those of:

1. Range of information.
2. Presentation of Information.
3. Devolution of Information.
4. Information for Consumers.

1. *Range of Information.* Existing information systems tend to contain client files, and material about directly provided services. There are two main areas of expansion:

a) Financial information, not only of the sort used in overall planning, but linked to devolved budgets, and to care package costs for individual clients.

b) Information about the independent sector, its resources, capacities, skills, charges, and so forth.

2. *Presentation of Information.* As a detailed format for workload management at the level of individual cases and locality or client group caseloads, effective case management depends on substantial information sources. Data is needed in relation to clients, services and budgets.

Client information is needed which:

a) Stores needs assessments for client (and representative, or advocate or carer) as well as case manager or other professional;

b) Stores (or helps make) recommendations on care packages, including priority rating in relation to client needs and (means tested) eligibility;

c) States budget allocated to client with full details of expenditure on that budget;

d) Copies care package contract, specifying what the SSD will provide directly, what the SSD will purchase with its own resources, what the SSD will press other agencies to provide at their expense, what resource raising the SSD will support for the client, and what the SSD will not pursue.

Service information covers:

a) Availability of specific services, with particulars of source, cost, delivery time, quality rating, referees/references, informed persons, contracting/purchasing arrangements, special conditions (eg. minimum purchase), and so forth. This amounts to an on-line catalogue which case manager and client can draw on in preparing to implement a care package, and fitting desired services to the budget available;

b) Scope within the catalogue above for case manager and client to ask "If..." questions about potential care packages (eg. "If we needed transport on three afternoons each week, who could provide it, and what would it cost?"); and for agency managers to be able to understand the wider and longer term impact on staff and other facilities of care package decisions.

c) Resource file on voluntary agencies, charities, etc. If relevant a directory of volunteers, with information

about their skills, availability, linked costs, quality rating, etc.

Budgetary material covers:

- a) Client means testing, service costs and on-line accountancy facility as mentioned above, linked to running totals of cost implications of care packages agreed for implementation;
- b) Administration of generated income (cash and kind);
- c) If appropriate, administration of a voucher or token system.

3. *Devolution of Information.* The framework for the devolution of access to information systems arises from whatever decisions are taken about the devolution of budgetary and decision making responsibilities for community care by social services departments. The White Paper is not prescriptive on this matter, but (3.3.5) "The Government sees advantage in linking case management with delegated responsibility for budgetary management. This need not be pursued down to the level of each individual client in all cases, but - used flexibly - is an important way of enabling those closest to the identification of client needs to make the best possible use of the resources available".

An interpretation of this statement suggests that devolution should be variable, but in some instances will be down to the level of individual case. Whatever happens in relation to particular cases, the system should be flexible. It follows that access to the information necessary to the effective implementation of such delegation will also have to be flexible.

This sort of flexibility will, in the first instance, depend on the deployment of equipment offering access to the agency's information systems. In some social services departments this has already occurred down to area office or other major service location (like a large hospital); in others such infrastructure is not in place. Even where there is a solid devolved infrastructure of IT hardware, questions will have to be asked about usage. A widespread experience in locations like area offices is that IT equipment is mainly, sometimes wholly used by clerical and administrative staff. Professional staff, whether from choice or lack of

opportunity, often do not sit at the computer keyboard. For the majority of current uses this situation may not reflect the most helpful response to the provision of IT services, but it is functional. Can the same be said of case management? Will case managers be able to work via clerical staff, and keep the computer at arm's length, or will it be essential for the case manager to have, on his or her desk, the means of access to essential information?

Given such questions it is difficult to escape the conclusion that case managers must be provided with equipment, and there must be changes in attitudes towards the direct use of IT by professional staff. It is outside the scope of this paper to pursue one immediate effect of such a move, but worth noting that there are substantial staff training implications to enable them to use new kinds of software (accountancy, for example), and interrogate information sources to get the precise material they require.

As well as a capital need, devolution and flexibility press further on some of the issues of the presentation of information which have already been noted. Case managers are likely to want to be able to analyze information from a variety of groups, some local authority wide, others more closely linked to the immediate service locality. For example, there may be cost differences between localities, linked to such factors as travel time for home visits, or charges made by independent local groups.

4. *Information for Consumers.* Two external groups are significant here, clients and sub-contractors. The process which takes place between client and case manager, possibly involving others, such as the client's carer or advocate, starts with an assessment of needs, leading into the preparation of a care package to meet those needs. At this point, or concurrently with the task of designing the individualised care package, resource questions have to be asked and answered. On the basis of the assessment of the client, what is the priority to be given to the identified needs? What budget will be allocated in order to pay for the package? This in turn leads to negotiation about the package which is to be implemented, and decisions about what is direct provision, what

will be sought elsewhere, and what may be desirable but is as yet unresourced. A broker or fund/resource raiser may join in for this sequence.

The issue for IT is what information will be provided in this context for client, carer, advocate or broker? The White Paper takes a much diluted consumerist view, concerned solely with the facts about services which are to be offered. A firmer consumerist approach might argue that in the negotiation of packages the client side should have the same access to information as the case manager, which means not just being given selected facts, but being able to interrogate the system (including on such matters as quality assessment of services), and having space to enter the client viewpoint. If community care is about partnership, surely this is what partnership involves?

The position of sub-contractors is somewhat different. The relationship between them and the social services department is likely to be complex and, at times, confused. Many, like voluntary organisations, have long-standing partnerships with social services at a professional level. Under the proposed new system they will interweave into this partnership the business relationship of customer (the case manager, inviting tenders for services) and provider (the voluntary or private group, submitting tenders and providing services).

Partnership in helping a client requires a full sharing of information: but the business relationship involves both sides in limiting the transfer of information to what they see as useful to their position. A voluntary organisation will discuss its weaknesses with a professional in the context of seeking to improve services, but will it do so in the context of tendering for business? At this point information, and information exchange, becomes a sensitive commercial matter.

Inevitably there will have to be compromise, so that a new business relationship can be established, without losing the tradition of professional trust and confidence which in itself will be vital to successful quality assurance. IT staff will be part of this process, because they will be looked to for information systems which

facilitate a compromise, by allowing flexible and carefully calculated information to be produced to suit the immediate context. There's a fortune to be made by whoever produces a really user friendly, easy to operate, malleable, giving and forgiving system!

Resource Management and Best Practice:

The initial, and probably inevitable response to the White Paper will be for the development of systems which aid case managers, but do so exclusively in terms of resource management. That is to say, they will focus on the supply of resources, conditions of availability, the specifics of contracts, and costs. They may, though this is dependent on data which is probably only available in agencies with existing workload management systems, go further into cost/resource comparisons with different approaches to client needs.

The challenge for IT, in turning a mediocre system into a first class one, will be the success achieved in drawing into data analysis two additional themes, service quality and professional values. First impressions are that some system designers are keen to take up this challenge. Two ICL staff, for example (John Morris and Fraser McCluskey), have produced a document which sets out the principles or preconditions for a successful resource management system, one of which is "constructive involvement of care professionals in the (choice making) managerial process". They go on to outline the sorts of systems which will be needed in the Health and Social Services, specifying three for social services departments. One enables the interactive control of price, quantity and quality: the second is a neutral data source: the third seeks to support service delivery "of a multi-agency care package based on multiple assessments of client's needs".

In the last resort, of course, the choice between a narrow resource led arrangement, and one which incorporates quality, values and consumerism, will depend on whether the Government puts in sufficient money.

The author is Director of the CTI Centre for Human Services.

CRITIQUE OF A MENTAL HEALTH ADMISSIONS DIAGNOSTIC SYSTEM: an Example of an Expert System In An Ill-structured Domain

Joe Ravetz

This paper describes the conceptual foundations and design considerations for expert system development in mental health, through the construction of an expert system to support social work decision making when the liberty of an individual is in question. The prototype as described offers a practical illustration of the potential for expert system development in an ill-structured domain. The paper describes the diagnostic system and user profile, and outlines the human-computer interface issues.

Description of Mental Health Admissions Diagnostic System:

The system is written in LPA Prolog Version 2.5/2.6 and accessed through the Prolog Incremental Compiler with switches and parameters preset for the application. The package runs in mono or colour on an IBM or compatible XT/AT with 640K of memory. The screen design is a window in blue with either a dull or bright green lettering as specified initially by the user in calling up the application. If a monochrome screen is utilized the shades corresponding to green and blue are acceptable.

The diagnostic system is divided into two parts. Access to each part is via selection from a main menu:

The system has been defined to provide information and advice pertaining to the compulsory admission to hospital of individuals who by virtue of their conditions may be subject to the provisions of the Mental Health Act 1983.

Choose for information and guidance:

1. Information pertaining to definitions and legal procedures.
2. Guidance pertaining to diagnosis, need for admission, and choice of procedure.

Press - RETURN - to discontinue!

Enter selection number here > .

The first of the choices gives access to a database of information: the second to an expert system offering professional consultation.

Description of Database Query System:

Choice 1 - *Information pertaining to definitions and legal procedures* is a database of information open to the user from a menu. The user chooses the area of information of singular concern and the first of a number of questions are called up. The user is asked if s/he wishes an answer, if "n" then a second question is called up. If "y" the information is offered and the user then moves on to the following question. The process is repeated until the last question of that group is dealt with. The program then moves to the menu allowing for further database enquiry. There is no reasoning mechanism.

The current system contains questions on five categories of information for rapid access by social workers in the course of their duties:

Choose the information required:

Choose For information pertaining to:

1. Definitions of Mental Disorder.
2. Admission for Assessment.
3. Admission for Treatment.
4. Admission for Assessment in Cases of Emergency.
5. Application for Admission by A.S.W or Nearest Relative.

Press - RETURN - to discontinue!

Enter selection number here > .

The design allows for easy incremental growth of information categories in a form simply accessed. Understanding is promoted through the use of the most commonly asked questions.

The present listings are prototypical of a potentially much deeper and broader database.

Description of Expert System:

Choice 2 - *Guidance pertaining to diagnosis, need for admission, and choice of procedure* is the core of the system. It offers consultation to social workers who are making decisions affecting the liberty of individuals subject to the Mental Health Act 1983. The system is designed to infer diagnostic recommendations following a dialogue with the professional user. Three stages can be consulted in the process of patient evaluation and committal, following referral to an Approved Social Worker. The three stages represent critical points at which decisions by social workers regarding the individual must be made:

Choose the expert system area you require:	
Choose	For guidance pertaining to:
1.	Decision support to define "Mental Disorder".
2.	Decision support to assess need for admission.
3.	Decision support to choose admission section.
Press - RETURN - to discontinue!	
Enter selection number here > .	

The following schema summarizes the decision choices to be made at each point and outlines the knowledge areas requiring examination pertaining to the decision. For example in Stage 1 the decision relates to the question - "Should the individual who has come to the attention of the professional staff be investigated further?" The diagnostic knowledge used to arrive at the appropriate decision is the individual's behaviour and perceptions. Depending on the outcome the patient may carry the status of patient/client rather than prospective patient/client.

Stage 1 status: **prospective patient/client**
 Diagnostic criteria: **behaviour and perceptions**

Diagnostic choices:

1. No further statutory involvement.
2. Further evaluation to assess patient

status, move to stage 2.

Stage 2 status: **prospective detained patient**
 Diagnostic criteria: **domestic, social and medical**

Diagnostic choices:

1. Admission criteria not applicable, no further statutory involvement nor informal involvement.
2. Medication in the community, non-statutory involvement.
3. Social care in the community, non-statutory involvement.
4. In-patient medical treatment, assess detained patient status, move to stage 3.

Stage 3 status: **prospective legally detained patient**

Diagnostic criteria: **professed level of cooperation, degree of instability in behaviour, response to past treatment, diagnostic category and likely response to future treatment.**

Diagnostic choices:

1. Informal admission, S.131.
2. Admission subject to assessment section, S.2.
3. Admission subject to treatment section, S.3.
4. Admission subject to emergency section, S.4.

The dialogue is conducted via questions which demand a "y" or "n" answer. The bias, built into the dialogue and knowledge, is that uncertainty by the user forces an answer inferring minimal statutory constraint, in line with the principle of "least restriction". For instance, in Stage 3 an assumption is made that hospitalization is necessary. The case for compulsion must be demonstrated along a continuum of sections of the Act, reflecting a hierarchy of professional control. Voluntary admission reflects least professional control, and a treatment section most professional control. The treatment section permits the

hospital to detain a patient for 6 months in the first instance and for up to a year if the patient is re-committed. The patient subject to a treatment section is also liable to receive a range of medical treatments without his/her consent. In each instance a more draconian measure must be proven, or the recommended diagnosis will reflect the less restrictive compulsory section.

The answers to several of the questions adjust the direction of the dialogue by raising a subset of questions. For instance, in Stage 2, if the question - "Would medication facilitate an improvement in the mental state of the patient or prevent deterioration of the mental state of the individual?" - is answered "y", then three related questions are called. If a "n" answer is given, then the direction of the dialogue moves away from a discussion of medication.

There is an explanation facility to clarify ambiguity, provide additional diagnostic help, and guide reasoning in line with the bias. A "?" calls the explanation to the screen.

At the conclusion of a set of questions a diagnosis appears. The user is offered a trace facility to review the line of reasoning that led to the diagnosis. The diagnosis re-appears for confirmation. The trace and diagnosis can be reviewed repeatedly until the user chooses to return to the menu.

There is a set of questions for each of the decision support stages. The user can choose to enter the inferential system at any one of the 3 stages, though there is a progression of decision support from Stage 1 through Stage 3.

User Profile:

The users would normally be social workers in the community who, as part of their duties, are responsible for the support and protection of persons deemed mentally disordered. Their powers include the responsibility to assess and make application for admission under the relevant provisions of the 1983 Mental Health Act. Individuals are referred via the general public, significant persons or the local doctor. The referred individuals may be known to the team prior to referral or may be unknown.

The three stages discussed previously outline the diagnostic criteria and diagnostic choices at critical decision points. The social workers may need to be knowledgeable about any or all three of the stages to support professional discussions or actions:

1. Are there medical grounds for admission?
2. If grounds exist, is admission necessary?
3. If admission is necessary, which section is essential to assure treatment?

In each instance, as stated earlier, the system works to the principle of "least restriction".

The user draws two benefits from consultation with the system. S/he obtains a diagnosis which is seen to "fit" his/her own imagery of the case. The second benefit is that the user re-models his/her imagery to account for the features of the dialogue from which the diagnosis arose. Consequently the user possesses a diagnostic system offering a model of decision making which can be appraised and refined, and supports a defensible argument in consultation.

Possible Scenarios for Use of the Diagnostic System:

Each of the scenarios describe circumstances in which consultation is currently perceived to be beneficial, but often not available or if available not structured. The scenarios relate to consultation with the expert system. The database query system permits social workers to have access to detailed information when required as part of the consultation process. Such circumstances can arise as:

1. Doctors often ask social workers to do initial evaluations prior to their own visits. It is envisaged that social workers would consult the system following their initial evaluations and prior to advising the doctors on further action.
2. Doctors call out social workers to homes or public facilities following their own intervention to interview the individual and then to consult with themselves. In these situations the doctor has seen the patient and normally refers the individual over the phone to the social

worker, prior to the social work interview. It is envisaged in a number of such circumstances that short efficient consultations with the system prior to interviewing the individual, and prior to medical consultation, would clarify avenues of investigation for the social worker to pursue in discussions with the doctor.

3. The social worker often responds to calls or referrals which may have a mental health component. On return to the office a consultation with the system offers the opportunity to clarify views systematically, prior to any informed referral to a doctor, who with the social worker may then instigate action.

4. In many instances individuals are known and the social worker is asked to visit because patterns of behaviour or perceptions are exhibited which lead to concern for the health and safety of the individual or others. The social worker can consult the system prior to the assessment of the individual to structure and evaluate a range of potential interventions.

5. The one circumstance in which the potential for the use of the system is limited is in the instance when rapid emergency action is required, with little or no time to reflect or consult following interview. In circumstances giving rise to a potential for emergency action, short efficient consultation is often helpful prior to interviewing to review possible combinations of factors and their diagnostic consequences.

Human - Computer Interface Considerations:

The system has been designed with a specific user group in mind. Hence the dialogue, explanation, justification and diagnosis have been written adopting the jargon of the user group.

In order to minimize the potential corruption of the output from using the program because of an incorrect entry, any entry outside a specific set of acceptable entries calls for a further clarifying response from the user. The acceptable entry set has been kept simple to reduce key strokes, and thus minimise the likelihood of error.

The menus offer a minimum number of options in order to avoid the confusion associated with options on a crowded screen. A main menu

calls up subsidiary menus. Essential information has also been carefully spaced on each screen to avoid overcrowding and hence user confusion. The window has been designed to bring up discrete "pages", rather than scrolling, to enhance presentation and minimize the user's need to employ the explanation and justification facilities.

The questions in each of the dialogues of the expert system are kept to the minimum number sufficient to infer a diagnosis. Long overly complex dialogues inhibit what is an essential feature of the system, the ability for a fast efficient consultation.

The system is designed so the user can control the pace of the dialogue and the review of the diagnosis/justification. The user can move between a question and explanation repeatedly, and review the process repeatedly until choosing to end the consultation. The database query system shares the more general features of the diagnostic system, differing only in those features which are specific to it.

Concluding Remarks:

The expert system structure is an instance of a knowledge based system. It possess a dialogue capability, an explanation facility, a justification facility and an inference mechanism for reasoning from domain specific knowledge. The control and knowledge structures are transparent and open to incremental development. The system offers the user a diagnostic tool to assist in the formulation of a course of action by testing the user's suppositions and inferences against the heuristics embedded in the rules driving the system.

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Should any reader be interested in further notes on the Prolog Structures or have an interest in obtaining a copy of the system, please contact him.

COMMUNITY TELESERVICE CENTRES

From the writings of Lars Qvortrup, edited by Bryan Glastonbury

The Government's White Paper on Community Care, *Caring for People* (Cm.849, 1989) gives a further push to the trend, apparent at least since the 1959 Mental Health Act, towards using local communities as the setting in which care services are provided for dependent people. The Victorians and their immediate successors saw residential provision - the workhouse, long-stay psychiatric and subnormality hospital, children's home, prison - as the basis of social care for those whose needs were unsuited to the potential of the family. They were suspicious of the middle ground of intensive domiciliary support, partly because of a view that some people (mentally ill, handicapped, offenders) were best kept incarcerated, respectably out of sight, and partly because occasional extensions to the domiciliary wing of the Poor Law service came to be analyzed as bouts of over-spending and unnecessary generosity.

For much of the last half century central and local authorities have chipped away at this framework, motivated both by the feeling that people would do better and feel more contented in their own families or communities, and by the impact of the rapidly increasing cost of residential care. Running down large children's homes and long-stay hospitals came first, and the focus has now moved to elderly, chronically ill and handicapped people, and to the prison population.

Seeking to put people back into local communities, or keep them there in the first place, puts considerable pressure on the constituents of those communities - individuals, families, voluntary groups and private companies. *Caring for People* adds to that pressure by proposing to force local authorities to diversify, by privatising services through contracting out to voluntary organisations and companies, and by maximising voluntarism. Can local communities cope with such pressures? Are there untapped sources of reliable capable voluntary help? Are there voluntary organisations or private bodies willing and able to take on service contracts, subject to quality

monitoring by the local authority? Is the social and economic infrastructure of local communities strong enough to handle this additional range of tasks?

A particularly vulnerable sector in this debate is the rural community (overall about a third of the population lives outside the big urban areas), where the numbers of people needing domiciliary support may not be great in each locality, but where certain features are not helpful. In a community of 2,500, or even 25,000, there will not be branches of major voluntary organisations, nor many local welfare groups; there will not be private service businesses operating on a scale suited to contracting with a large social services department; and local authority support will itself probably be thin and distant.

It would be quite wrong to suggest that Lars Qvortrup and his colleagues started Community Teleservice Centres specifically to help overcome some of the difficulties local communities might have in meeting community care pressures. Their vision was much wider. The need as they saw it was for aid to rural communities so that they could maintain or enhance their economic viability and quality of life. Given such help, there would be wide ranging benefits, including to local health care, education and welfare. Their contribution was to focus on information technology and the role a community facility (a sort of rural resource centre) could play in supporting local activities, including businesses, and offering a diversity of forms of communication.

The extracts which follow are taken from papers presented by Lars Qvortrup in 1989 and 1990, specifically *Community Teleservice Centres for Rural Regions*, (Swansea, September 1989), *Teleservices for Developing Countries: Community Teleservice Centres for Rural Regions in Scandinavia and in the Developing World*, (Geneva, October 1989), and *Community Teleservice Centres in North-Western Europe*, (Kautokeino, Norway, March

1990). Lars Qvortrup speaks and writes excellent English, so only minor editorial changes have been made. He also edits the newsletter of the International Association of Community Teleservice Centres. To find out more about the Association and the Newsletter (which is published in English) contact Lars at:

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Community Teleservice Centres - a Definition:

The first fully equipped Community Teleservice Centre (CTSC) was established in Sweden in September 1985, based on a blueprint by Jan Michel and his fellow citizens from the small village of Fjaltring, a community of 350 inhabitants in Western Jutland, Denmark. At the beginning of 1989 the total number of CTSCs was 25. By early 1990 approximately 50 have been established in Denmark, Norway, Finland and Sweden.

Based on four years of practical experience a general definition of CTSCs has been elaborated. Their main aim is to provide village communities with access to data processing and telecommunication services, and to computer-assisted services. Instead of linking individual households to the network, IT facilities are concentrated within a teleservice centre, containing telecommunications, electronic data processing and, sometimes, video equipment, giving access to telephones, telefax, electronic mail and other data communication facilities, to remote data-bases (professional information services for small enterprises, and information services from public authorities), to computer-supported education, to professional computer programs, etc. All these services are at the disposal of the entire local community for communal use at reduced costs and with access to a CTSC consultant at the local Centre. The facilities available are intended to integrate a number of different business and community activities.

A CTSC may thus be defined as a centre where

IT apparatus is placed at the disposal of the citizens of a specific local community within a rural or peripheral area, so that communal use may be made of the facilities available. The purpose of the CTSC is to counteract some geographically determined disadvantages which affect the local community, whether they are of an economic, educational or cultural nature, or whether those disadvantages concern employment, social services or other aspects of the infrastructure.

Facilities Available at CTSCs:

The components of a CTSC include premises, staff and equipment. The centres are located in schools, libraries, local authority buildings or converted houses, and they normally contain an office, a classroom, a meeting room, work facilities for users (students, citizens, farmers, business persons, etc.), and a small kitchen with a coffee machine. A minimum staff is typically a full time director (the so-called "telecentre caretaker") and a part time secretary.

Equipment varies between centres, but may include the following:

Hardware:

- * Personal computers, typically 2 to 5 in number;
- * Printers, typically 1 or 2;
- * Modems, for data communication via the telephone network;
- * Telefax, sometimes also telex;
- * Video production and editing equipment;
- * Sometimes facilities for broadcasting of local radio or television;
- * Sometimes facilities for two-way video communication;
- * Ancillary equipment such as reference books, teaching; aids, etc.

Software:

A wide range of software products are provided, which may include word processing and desktop publishing; spreadsheets and

integrated packages; graphics and computer-aided design; programs (programming languages, training packs, for example) for educational purposes; computer games; accounting packages; agricultural or business recording and stock-keeping programs.

Within each centre the personal computers are usually linked together into a network. Also the centres within a region or at least an extended local community are usually networked, allowing shared access to software and to specialised (technical) services, as well as communication between centres.

Services Available at CTSCs.

The services available vary considerably between countries and between centres within countries, but the following basic services are provided by most of the Nordic CTSCs:

- * Information services: access to regional, national and international databases (library files, local authority information, etc.);
- * Telecommunications facilities: fax, e-mail, etc.;
- * Data processing services: word processing and desktop publishing, professional programs (eg. business accounting), and a wide range of others;
- * IT consultancy: the telecentre management is undertaken by a "telecentre caretaker" who also assists local businesses and organisations;
- * Training and education: introductory computer courses, and Open University type on-line tutorials;
- * Village hall facilities: rooms and facilities for meetings, municipal and county information, etc.;
- * (Sometimes) Hire of video production equipment and editing facilities;
- * (Sometimes) Hired facilities for local entrepreneurs who need infrequent access to computer and telecommunication equipment.

CTSCs in the UK and Ireland:

In Scotland in September 1989 the Highland and Island Development Board (HIDB) and

British Telecom (Scottish District) set up a conference to evaluate the need for Scandinavian type CTSCs in Northern Scotland. At the conference both organisations confirmed that they had a role in providing some structure to help "pump prime" the development. Five individuals or groups, all of who had shown interest in the concept, were approached to see whether or not they wished to participate. The five were the Islay Council for Social Service, Highland Data from Lochgilphead, Stornoway Insurance Services, Orkney Islands Council, and a personal representative from Unst.

Out of these five potential sites for CTSCs it is expected that the first four centres will be established during 1990. BT and HIDB are expected to spend support cash. In Islay demand for IT services has been identified from the business, educational, voluntary and public sectors on the island. In Lochgilphead demand is expected to come from the training sector and from local businesses, and the project will combine such services with already ongoing international database services. In Orkney the community school in North Walls, on Hoy, has been chosen for the project which will be based on the existing community centre. On Unst premises have been proposed in the North Isles Community Enterprises building.

In England the Peak Park Trust is spending £320,000 on converting Eccles Farm, in the Hope Valley district of Sheffield, into a workshop/hi-tech office complex. Half the funds are being provided by the Rural Development Commission, supplemented by donations from the national park and local authorities. The centre is due to open in 1991.

Finally, in Ireland the Information Technology Centre was established in the North West by County Donegal VEC in 1988. Its role is to encourage and extend the use of IT and advanced telecommunications services in small and medium sized enterprises. The Centre offers the following:

- * Computer Training;
- * Independent consultancy;
- * Software customization and development;
- * Information retrieval;
- * Walk-in bureau service;
- * Regional videotex service;

Preliminary Evaluation Results:

A number of evaluation studies regarding CTSCs are currently being carried out. Even though it is far too early to draw any final conclusions from the evaluation studies of Danish centres, one might still, however, sketch an "ideal" model CTSC.

The size of the community. In order to legitimize a full-scale CTSC the number of inhabitants should be a little bigger than the population in Fjaltring. An ideal minimum might be about 1,000. Still, of course, one has to adjust a specific centre to its social context by changing its services, equipment and number of employees, and in many cases it would be sensible to establish a number of small integrated CTSCs with opening hours once or twice a week. At the other extreme, in Denmark one successful CTSC is located in a town with 50,000 inhabitants.

Services. Based on the Danish experiences, training courses, professional services, access to shared facilities, decentralised public services, consultancy, and participation in general village hall activities seem to be the most successful services provided by CTSCs.

Integration of CTSCs into the local community. Local organisational autonomy appears to be desirable for community support and high usage of facilities. The integration of CTSCs into already existing institutions (schools, local authority offices, voluntary associations, etc.) is an indispensable precondition for successful results. The centres are most effective in promoting positive attitudes to and increased knowledge of IT if they become part of the community social structure.

Selection of CTSC caretakers. The single most important element in the CTSC is the caretaker. First of all, he or she should be socially rooted in the community of the CTSC. It is better to take a person from the local community - a respected enthusiastic villager - and to offer him/her a good general training course than to choose an outsider (however well qualified) for the job.

Why CTSCs?

First of all, in parts of rural Europe there is still a *network problem*. As an example, Spain is estimated to have some 30,000 communities of fewer than 100 inhabitants which are not connected to the telephone network.

Secondly, there is a *service problem*. Even though the connection to the telephone network has been made, the teleservices available are very often based on the demands of the urban population, and not related to the needs of rural citizens.

Thirdly, there is a *cost problem*. For a small farm, a small business or a small service organisation, computer terminals are still quite costly, and the cost of access for those who would only be infrequent users is too high to justify individual connections.

And finally there is a *human problem*. Still the skill requirements for using computer programs are high, and not always met by people living in the rural regions, and the general attitude to new IT is often quite sceptical.

Not all these barriers are met by teleservices *per se*: some are better met by teleservices provided at CTSCs! The answer to the network problem is that even though individual connection to the network is not always possible, it might still be feasible to provide access to teleservices at one single place in a village. A shared connection will also substantially reduce the cost problem for each individual. The answer to the service problem is to provide not just telephone services, but in addition computer based services such as access to databases, distance training courses, etc. Finally, the human problem is met by integrating on-the-spot training courses and advisory services into the activities of the CTSCs, and employing a competent "caretaker" at the centre.

Putting CTSCs into rural communities seems thus to be very relevant to the needs of peripheral regions in Europe. By strengthening rural areas and enabling their populations, could they also turn into valuable aids to the effective development of community care services?

Book Reviews:

Management and Information Systems in Human Services: Implications for the Distribution of Authority and Decision Making, by Richard K. Caputo.

Although this book relates to human services in America, it quickly became apparent that the content applies to similar services in the UK, namely "those not-for-profit organizations in public and private sectors which fall under the rubric of health, education and welfare".

The aim of the book is to describe and explain the effect introducing computer information systems has on the daily operations of decision making and service delivery within the organisations already mentioned. Caputo's systematic approach and easy style make this book both very readable and thought provoking. The author sets the context in the Introduction, outlining the themes, concepts and assumptions recurring throughout the text, before describing the content of the book and the flow of his argument.

The first two chapters deal with the concepts of authority, decision load and information systems, discussing the role of legitimacy in the distribution of decision load, drawing on theories from Weber and others. In these chapters he introduces the issue of professionalism and the conflict that can arise in bureaucratic organisations when professional and managerial authority are at variance. The third and fourth chapters make riveting reading, as the influence exerted by the introduction of information systems becomes apparent, both on the structure of authority, and on the power and decision making processes, potentiating "organizational anarchy". Caputo adopts a global technological perspective in the fifth and final chapter, countering a pessimistic forecast

of the human race locked in "abstract labyrinths of systems models and input-output black boxes", with a challenge for those involved in human services to determine the service they require for the future, participating in planning, and ensuring fundamental values and accountability are sustained.

At the time of writing this book the author was Assistant Professor at the Goldman-Lazarus Center for the Study of Social Work Practice at the University of Pennsylvania, and his expertise in the subject is apparent. The subject matter of the book flows sequentially, moving from the general to the particular in logical fashion. The book is extremely well referenced with an impressive bibliography. Diagrams are employed when appropriate. Caputo seems to have encapsulated the problems, real and potential, which many organisations may overlook in their enthusiasm to computerise.

The author expresses a hope that having read this book human services managers and students of administration will have an increased awareness of the impact information systems have, both socially and organisationally, when introduced into their services. I am confident this hope will be realised.

The book is published by Haworth, New York and London, 1988.

The reviewer, Diana Hampton, is Senior Nurse for Research and Development, Royal Hampshire County Hospital, Winchester.

COMPUTERS - Who needs them? A Guide to Computing for Voluntary Groups, by D. Charlton, S. Kosminsky and M. Lunnon, London Voluntary Service Council (LVSC).

The authors, members of the Information Technology Resource Unit (IRU), prepared this book as a response to requests from voluntary organisations for information on

computers and computing.

A short introduction gives the history of the IRU, outlines the aims of the book and

summarises the chapter content. Three categories of readership are identified: people from voluntary organisations who are exploring the possibilities of purchasing hardware and software, the new and nervous individual user, and, peripherally, people in small businesses.

The guide is a good entry point to buying and using PCs. It sets out the current state of the art and makes sensible predictions on future trends. It encourages readers to assess carefully their current office practice and to attempt to identify how a computer could make this more efficient.

This is a handbook which would suit anyone who has a small budget and is planning to buy a computer for the first time. It is prepared for beginners with straightforward and sensible layout and effective cross-referencing. It combines basic information on how a computer works with advice on how not to get overwhelmed by the technology. The authors describe the most frequently used applications and guide the reader away from unnecessary spending.

Chapter one introduces the computer and allows the reader to become familiar with the language of computer users. This chapter and the glossary are helpful reference points to return to when reading subsequent chapters. It is a feature of this book that each chapter is broken up into short headlined sections which are easy to re-read.

The following chapters consider various applications, concentrating on those most used by small organisations: that is word processing, spreadsheets and record handling (databases). Each chapter is laid out to answer a number of questions - "What is it?", "What does it do?", "What equipment do I need?", and "What will it cost?". This is followed by a chapter on how the computer works, perhaps a little surprisingly placed this late on, when it could have been expected as Chapter 2.

The final sections of the book pose the question "Do you need a computer?", and tracks the reader through practical issues leading up to a sensible decision. Allowing for the answer to be "Yes", the reader is then offered advice on

choosing and installing a system and working out the costs. Finally the authors assume the purchase has been made and offer advice on fitting it into the office (or study?) and protecting it from all ills. A short summary of current Data Protection legislation is included and warnings concerning the protection of information on the system. This book probably predates the rise of the computer virus and does not advise on the integrity of software imported from outside or protection against contamination. There is sensible summary of health and safety issues for the introduction of new technology in the workplace.

The authors have maintained throughout a simple direct style which is easy to read and any technical terms are clearly and concisely explained, sometimes with the aid of amusing illustrations by Phil Evans. The reader is directed to the Glossary by printing in italics any words or phrases which need a more detailed explanation than the flow of discussion requires. There is a small bibliography and list of addresses to assist further explorations.

In summary I found this an excellent book which covers the practical issues of buying a computer and avoids the doctrine that "as everyone is buying them, so must you". It has been read by a variety of people from complete beginner to "expert " and is recommended by all.

The book is published by and is available from LVSC, Chalton Street, London, NW1 1JR at a price of £5.00. It was first published in 1988, and has 99 pages.

The reviewer, Ann Wilkinson, was a social worker with experience in probation and social services departments before joining the staff of the CTI Centre for Human Services.

Computerised Child Protection.

CHIAC. In 1989, after a lengthy development phase, a team from the University of Bath, with sponsorship from CCETSW, Price Waterhouse and the Children's Society, launched *CHIAC*. The *CHIAC* system sets out to offer comprehensive guidance on child protection matters, ranging from practical advice to concise information on recent research findings. A copy of the system was given to each UK social services department, so it will already be familiar to many readers. There is a price structure for further copies and updates, details of which can be obtained from the developers, Duncan Charlton, Julia Cramp and Andrew Kerslake.

In outline *CHIAC* operates by asking a sequence of questions designed to focus in on the precise area of interest shown by the user. The user selects an answer to each question from a pre-arranged set of possible responses, and the program responds to that answer by asking a further question or by offering information.

The system is intended for service staff with a variety of agency roles, including field social workers with child care cases, their supervisors, and team managers. At a superficial glance it looks to have considerable potential in a training setting, both as a means to work through case-study material, and as a pointer to specific publications and research findings.

CHIAC runs on IBM or compatible equipment, either with two floppy disk drives or a hard disk. It comes with simple installation instructions. A snag from an educational viewpoint is that there are no free copies for courses, and the current price is £800.

Child Protection Guidelines. The Merton and Sutton Area Child Protection Committee, in conjunction with the Department of Social Work Studies at the University of Southampton, has just published a 1990 revision and extension of the *Child Protection Guidelines* written initially for the London Boroughs of Merton and Sutton.

The principal author of these guidelines is Alison Leake, a specialist child abuse worker, and the objective of the publication is that it should serve as professional practice guidelines for all staff (SSD, Health, Police, etc.) involved in child abuse cases. The published version is generic in the sense that material specific to Merton and Sutton has been excluded. The contact person for further information is Bryan Glastonbury at the University of Southampton.

Publication takes two forms. There is a hard copy which slots the 72 page guidelines into a wallet folder for carrying in pocket or bag. The folder also has a fold-out flow chart tracking a child abuse referral through its various stages, and a pocket to contain blank skin charts (for mapping injuries) and a list of local contact names, addresses and phone numbers.

The second format is a computerised version in which the script and diagrams have been lodged within a text retriever (*MINDS tm*) by Stuart Toole of Birmingham Polytechnic. The system operates as a very high speed text searcher. The user types in a question or some key words (in straightforward English), and is directed to all parts of the script where there is relevant material. In part this is a simple key word search, but *MINDS* also draws attention to synonyms and matching concepts.

Child Protection on *Minds* runs on IBM or compatible equipment with a hard disk. There is an educational price of £149 for a site licence (that is, to make as many copies as are needed within the purchasing institution). The hard copy price is £4 including postage. A feature of both hard copy and computerised versions of the guidelines is the offer to agencies to modify the generic version, so as to develop versions specific to local areas and services.

An initial run through *CHIAC* and the *Child Protection Guidelines* suggest that they complement rather than compete with each other. One offers a substantial broadly based view of the scene: the other provides detailed practice guidelines.

HUSITA 2

The second International Conference on IT in the Human Services will take place in New Jersey, USA, from June 27th to 31st, 1991. The conference is hosted by Rutgers University, with support from several schools of social work in New Jersey and New York. The venue is the Hyatt Regency Hotel, New Brunswick. The nearest airport is Newark, but JFK New York is close.

The theme of the conference is "Advancing Theory and Practice", and the call for presentations has already gone out. Anyone wishing to offer a presentation at HUSITA 2 (whether paper, discussion panel, workshop or demonstration) should submit an abstract by October 1st 1990. All European abstracts will be refereed by a working group set up by ENITH, and should in the first instance be sent to Bryan Glastonbury at the Department of Social Work Studies, University of Southampton.

A sheet containing full particulars of the "Call for Presentations" was included in the mailing with this journal, but if you want more we have them!

The Computer Use in Social Services Network (CUSSNet) List:

The last time *New Technology in the Human Services* printed the CUSSNet list was in Volume 4 Number 3. Since that time there have been many additions and a few alterations. What follows is not a complete list, but only new programs appearing on the CUSSNet list of May 1990, plus a few which have been printed before, but where the specifications or version have changed.

The software listed here is all North American. Copies of any program can be purchased for £9 for a single disk program, £14 for a two disk program, and increasing by increments of £5 for three and four disk programs. Please place orders with the Editor, Bryan Glastonbury, Department of Social Work Studies, The University, Southampton. The price includes VAT, postage and packing for the UK. Bulk or overseas orders by arrangement.

At present neither the *Centre for Human Services* nor the editorial staff of *New Technology in the Human Services* have much direct knowledge of the content of the programs, but in the next issue of *New Technology in the Human Services*, which is planned as a software directory, we will be offering short reviews of those programs we have already identified as of possible use within the UK.

Definitions of software codes:

(D) = Demo - Software that highlights a product and/or gives you the feeling of how the actual product operates.

(F) = Freeware - Full working version; no restrictions on use.

(L) = Limited Use Version - Lets you examine the product, but limitations prevent continued use.

(U) = User Supported Shareware - Full working copy; you are expected to register and pay the vendor if you

use it.

IBM-PC = Will run on the IBM personal computer and compatibles.

(HD) = Indicates a hard disk is required.

(C) = Needs a colour graphics card.

Note: Disks are direct from the vendor and copied with vendor permission. Thus, disks are free of computer viruses.

All disks are guaranteed to work. However, disks may get damaged in the mail. If you have a problem, write a description of it and send it with your disk(s) for a new copy and/or some advice.

Accounting and Billing:

Clinic Accounts Receivable (1 disk) - Demo of 3rd party billing, sliding-fee program (D) IBM-PC.

System includes client and staff information for case management as well as provider data for complete electronic billing.

HFSL (2 disks) - Freeware housing finance management software (F) IBM-PC (HD).

The Housing Finance Savings and Loan (HFSL) software package from the United Nations Centre for Human Settlements (Habitat) is an accounts management program for housing finance. It is a menu driven dBase III+ program that can be easily modified. It performs all the standard account-management functions.

PC Fund (1 disk) - Demo of complete fund accounting system (D) IBM-PC.

Developmental Disabilities:

AUGMENT (1 disk) - Information on augmentative communication readiness (F) IBM-PC (no copy charge). Informs teachers, parents and caseworkers about a client's situation regarding augmentative communications technologies and provides skill building exercise and resources. From the Texas Planning Council for Developmental Disabilities.

Dr.Bill's Software Demo (1 disk) - Demo of OWCP Case Management and DOT Codes software (D) IBM-PC.

Demos OWCP Case Management software that handles DOL billing, financial reporting, and client contact control for a Rehabilitation Counsellor with a Department of Labour OWCP caseload. Also demo of "DOT on a Disk" software that provides DOT codes, Skill Level, Physical Demands, Environmental Conditions, OES Codes, and Census Codes for all 12,854 jobs appearing in the Dictionary of Occupational Titles. Particularly useful for vocational expert witness testimonial.

FreeBoard (1 disk) - Demo of software allowing non-keyboard input (D) IBM-PC.

Demo of software which allows users to work with most software using only a trackball, mouse, joystick, row/column canning, or optical pointer.

Peter's Program (1 disk) - Freeware rudimentary joystick word selection communication system (F) IBM-PC.

Allows users to compose sentences using a joystick by selecting words from menus. Requires the BASICA language.

Sign Friends (1 disk) - Shareware Sign Language trainer (U) IBM-PC.

Presents children, parents and teachers with graphic illustrations of sign characters and tests on fingerspelling.

Spell Games and Bannerific (1 disk) - Shareware banner making program and game to help learn how to spell (U) IBM-PC.

Bannerific creates banners. Spell Game displays a word on the screen for an instant, and you must spell the word by typing it on the keyboard. Words are based on national spelling bees.

Education/Training:

Anger-Advocacy (1 disk) - Training courses on responding to anger and legislative advocacy (F) IBM-PC. Electronic courseware (manual and tests) on *Responding to Anger and Hostility: Effective Intervention Skills*

and Safety Issues and Active Participation in the Texas Legislative Process. Completion of tests and payment receives CEU credits.

Black Magic (3 disks) - Shareware version of hypertext software (U) IBM-PC.
Shareware hypertext authoring system for creating interactive electronic text and graphics documents.

Black Magic Demo (1 disk) - Demo of hypertext software above (D) IBM-PC.

Dale (1 disk) - Demo of drug abuse education system (D) IBM-PC.
Drug Abuse Learning Environment demo to provide students (grades 4 - 12) with information regarding serious health and social consequences of substance abuse.

DOS Learning System (1 disk) - Shareware tutorial about DOS (ie. computer operating system) (U) IBM-PC.

I-View Skills (1 disk) - Demo of software to teach interviewing skills (D) IBM-PC.
Sampler of a computer assisted instructional program for teaching cognitive elements of basic interpersonal communications skills.

Lotus Learning System (2 disks) - Shareware tutorial on Lotus 1 2 3 (U) IBM-PC:

MEL (2 disks) - Demo of Micro Experimental Laboratory system. (D) IBM-PC (C).
Demos an experimental authoring system allowing users to run experiments by filling in blanks on forms. MEL runs the experiment and collects, analyzes and graphs the data. Students can run reaction time, questionnaire and text comprehension experiments without programming. User tutorial included. Won the EDUCOM/NCRIPTAL higher education award for best Social and Behavioral Science software.

MHC-BIB (1 disk) - Annotated bibliography (581 entries) on Mental Health Computing (F) IBM-PC (HD).
An annotated bibliography searchable by author, publication date or key index terms.

MRDOS (1 disk) - Shareware introduction to the IBM-PC and DOS (U) IBM-PC.

PC-CAI (1 disk) - Shareware system to develop computer aided instructions (U) IBM-PC.
Shareware software for creating tutorials without having to know a programming language. Uses sound, graphics, animation, colour in asking questions and evaluating answers.

PC-Pathway (1 disk) - Demo of career selection tool (D) IBM-PC.
Demo of a system that allows users to enter their profile and search through 1,001 job descriptions for the most appropriate occupations.

PC-PASS (1 disk) - Demo of authoring system with two social policy examples (D) IBM-PC.
Demo of PC-PASS, a program which allows instructors to construct tutorials which present information, prompts users for responses, and scores user performance. 10 social policy tutorials are available; 2 are included on this demo.

SWBIB (2 disks) - Annotated bibliography of computers in social work (F) IBM-PC.
A 196 page (440k byte) indexed annotated bibliography on computers in social work. The files are in ASCII format with an index at the end.

Understanding Statistics (1 disk) - A statistical tutorial (D) IBM-PC (C).
Demos a package which provides 10+ hours of instruction/testing covering descriptive statistics, sampling, hypothesis testing, analyzing discrete/nominal data, correlation and regression, tests and measurement, and ANOV.

Word Perfect Learning System (2 disks) - Shareware tutorial on Word Perfect (U) IBM-PC.

Health:

MedSWIS (2 disks) - Demo of a hospital social work information system (D) IBM-PC.
MedSWIS helps hospital social workers track and allocate resources by collecting data and producing reports.

Mental Health:

ACHI (1 or 2 disks) - Assessment of Chemical Health Inventory demo (D) IBM-PC.

The ACHI is a 128 item self-administered instrument designed to evaluate the nature and extent of adolescent and adult chemical use and associated problems. Adult and youth versions available separately (1 disk each), or together.

ARES (1 disk) - Demo of an At-risk Evaluation System (D) IBM-PC.

The ARES is a battery of 20 individual surveys consisting of over 700 items designed to identify multiple risk factors, problems, issues, or personal concerns.

CASS (4 disks) - Computer Assisted Social Services system (L) IBM-PC (HD).

CASS features: (1) automated casenotes; (2) automated and fully relational structured forms, social histories, research and clinical questionnaires; (3) automated and relational clinical interview schedules; (4) automated billing system; (5) unidimensional and multidimensional assessment scales; (6) mental status testing; (7) graphics display of single case designs; (8) complete program evaluation features at the client, worker, unit, section, office or organisation level. This is the latest development from Walter Hudson of the program which was previously CAS (Clinical Assessment System).

CASSDemo (1 disk) - Demo of CASS above (D) IBM-PC (HD).

Decisionbase (3 disks) - Fully functional sampler of integrated mental health software (D) IBM-PC (HD).

This sampler illustrates how Decisionbase computerizes the following: DSM-III-R diagnoses and textbook, medical record keeping, progress notes, treatment selection, and monitoring outcomes. It allows the therapist, patient or informant to generate a diagnosis or history.

Decisionbase Demo (1 disk) - Demo of Decisionbase above (D) IBM-PC.

PSYSEARCH (1 disk) - Demo of a psychiatric diagnostic aid using a DSM-III-R type decision tree (D) IBM-PC.

Demo of an interactive diagnostic aid. Based on the user's yes/no answers to questions, the software helps the user reach one of 70+ diagnostic conclusions.

Tests2 (1 disk) - Tests for game and curiosity purposes (F) IBM-PC.

More tests/games (**Tests1** is listed in Vol.4, No.3). Tests cover political liberal/conservativeness, stress level, sexual IQ, left/right brain dominance, and includes a program for making multiple choice tests.

The Psychiatric Assistant (2 disks) - Demo of a system to assist clinicians (D) IBM-PC.

Demos system to assist clinicians with writing progress notes and reports, making DSM-III-R diagnoses, storing and tracking literature abstracts, doing medical evaluations, etc. Designed for psychiatrists but can be customized for other clinicians.

Management:

siAMS (1 disk) - Dem of a generic Agency Management System (D) IBM-PC.

Contains case management, personnel management, list management and promotion/fund-raising management modules.

Development System (1 disk) - Demo of fund raising and membership/subscription program (d) IBM-PC.

Keeps track of a large number of people/organisations for mailing and tracking campaigns.

FormGen (1 disk) - Shareware program generates and manages forms (U) IBM-PC.

Helps design, store and print master forms. Forms can also be filled in on the screen, printed and stored.

Schedule and GANTT (1 disk) - Shareware and demo for project management (L and F) IBM-PC.

GANTT (shareware) displays project schedules using GANTT charts. Schedule (limited capacity version) manages projects using the critical path method (CPM) and program evaluation and review technique (PERT). A demo and tutor are also provided.

Micro-Psych (1 disk) - Demo of office management system for individual/group practices (D) IBM-PC.

Illustrates how Micro-Psych aids in billing, insurance claim completion, prescription writing, correspondence, expense tracking, appointment scheduling, record keeping, and ad hoc reporting. When ordering specify whether you have a colour or monochrome computer.

Personnel Policy Expert (1 disk) - Demo that generates an employee handbook from user questions (D) IBM-PC.

Demos software that constructs 50+ pages of ASCII personnel policies based on user responses in over 55 policy subjects.

R/Client (2 disks) - Demo of a client management and reporting system (D) IBM-PC.

Menu driven social service agency system providing a variety of reports, statistics and information useful in the treatment, planning and quality assurance process.

TPPM (1 disk) - Demo of The Psychotherapy Practice Manager to manage records, appointments and billings (D) IBM-PC.

Demos client record system including intake, history and contact information with integrated client fees and payments.

Note that for three management programs listed in Vol.4, No.3 - **Donor Network**, **MIS Manager** and **Volunteer Network**, it should have been mentioned that they are written in dBase III.

Data Analysis:

Abtab (1 disk) - Demo of survey management system (D) IBM-PC.

Demo of a system for survey researchers which analyzes data and produces reports. It refers to a low cost version of Abtab, called Scout, which is also available.

Welfare/Child Protection:

Foster Care Protection (3 disks) - Shareware system for auditing foster care records (F) IBM-PC (C) (HD). Assists federal review of the quality of foster care services in states. Prolog source code included.

Miscellaneous Packages and Utilities:

BestChoice3 (1 disk) - Demo of a decision-making system (D) IBM-PC.

Demo of a system which works people through to a decision by analyzing structured choices and their criteria.

Brother's Keeper (2 disks) - Shareware genealogy program (U) IBM-PC.

The Family Edge (2 disks) - Another shareware genealogy program (U) IBM-PC.

Humor1 (1 disk) - Eleven shareware/freeware humorous/trick programs (U/F) IBM-PC.

Right Writer (1 disk) - Demo of grammar and style checking program (D) IBM-PC.

Why not write for New Technology in the Human Services?
We welcome articles, short or long, comments, reviews and news items. At present we are especially interested in material which focuses on training, such as training staff in agencies to use computer systems, or using computer programs for human service teaching in colleges or training departments. If you have ideas or a possible contribution please contact Bryan Glastonbury.

CTI Centre for Human Services

At the bottom of the previous page is an invitation to submit papers for publication in *New Technology in the Human Services*. This is a new subject area for the majority of staff and others connected with personal social servicing, and one of the observations CTI Centre workers have made is that people who have something worth writing about often feel too diffident to put pen to paper or fingers to the word processor. Perhaps they feel that their views are not suitable because they are not IT specialists, or are hesitant to write something which may be heavily criticised by those who are assumed to have more IT expertise. If you are just a little bit tempted to write, but have reservations, don't hesitate to talk about the matter with Centre staff. Jackie Rafferty and Ann Wilkinson (on 0703 592779) or Bryan Glastonbury (0703 593536) will respond to any queries, privately and, we hope, with kindness and sensitivity.

The Centre produces a newsletter in addition to the journal. It comes out every couple of months and is aimed specifically at staff in education or training settings. The newsletter

reports on events (past and future), gives news items, notes useful contact people, and so forth. If you are in human service education or training, and would like to go on the mailing list for the newsletter, please contact Ann Wilkinson. There is no charge. If you have any bits of news or information, or any views, which you feel might go into the newsletter, Ann would be equally pleased to hear from you.

The Centre is keen to promote and help local or regional groups of teachers who want to make contact in relation to curriculum developments (especially the IT implications of the new Dip.S.W), or more generally to exchange ideas, opinions and experiences about IT teaching or Computer Assisted Learning in human service education. Currently we can tell you about groups operating in Northern Ireland and the North of England. We hope more will follow. Contact Jackie Rafferty or Ann Wilkinson for information. Jackie is especially interested if you have an urge to form such a group or get involved in one.

Portsmouth Polytechnic, School of Economics, CALECO Research Group

Computer Applications in the Social Sciences

This conference will take place on September 18th and 19th, 1990, at the Portsmouth Management Centre, Portsmouth Polytechnic. It is planned as an interdisciplinary gathering, aimed at covering all aspect of the social sciences. There will be a wide range of presentations, including hardware and software demonstrations from major suppliers, and specialised software workshops.

The cost, including attendance, accommodation and meals, is £95.

For more information contact the Conference Organiser:

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