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Up Front

In this issue of the journal we are focusing on the use of computers in social work education and training. The Centre for Human Service Technology hosted a conference at IBM United Kingdom Laboratories Ltd in March 1995 and the conference was sponsored by the Central Council for Education and Training in Social Work (CCETSW). IBM generously provided the ground floor of Hursley house for workshops and exhibitions. IBM also provided the technical support and equipment for four of the workshops to take place online. The conference was lively and stimulating and there were a number of excellent presentations. Ninety particpants from the UK and other parts of Europe included educators and practising professionals as well as software developers. There were four parallel strands on the themes of teaching using the Internet, courseware development, CCETSW developments and practice issues. In this issue the contributions are from the strands on courseware development and practice issues. We are collecting those papers which focused on using the Internet for research and teaching for the next issue

The opening presentation at the conference was made by Rachel Pierce, Assistant Director, Education and Training, CCETSW. She also led a workshop on the information technology implications of CCETSW Paper 30, a review of the Diploma in Social Work qualification, a summary of which is included. This was a timely event as the working copy of the review had been published two weeks earlier. CHST noted that the paper focuses less on technology and enlarges the importance of information collection and handling.

The first two papers look at the changing culture in education from different perspectives. Lieshout and Rosenboom from CAUSA develop ideas for a typology of teaching information technology in social work education. CAUSA have developed a curriculum for telematics teachers which is delivered in text based modules but does not demand the teachers use computers to deliver the material. Maier describes a new Teaching and Learning Technology Programme (TLTP) project which aims to change the culture of an institution and encourage staff and students to use new technology. The initial focus has been to target individual teachers and encourage and support them to create modules based on their own materials. By creating pockets of innovation in a number of departments it is possible to expose a wider number of staff to new technology.

Gould and Wright describe the development and implementation of a training package for teaching care management using an existing care management software system. This is one of a number of developments which have been released recently by Social Science Research & Development Unit (SSRADU) at the University of Bath. We are hoping to have reviews of some of this new material for issue 4 of this volume.

Colombi discusses the use of computers to support practice in the probation service with a look at the lack of a coherent approach to integrating new technology to the service as a whole.

Mike Wald takes a critical look at the emergence of new technologies, in particular the new initiatives to develop courseware, and the impact, positive and negative, this may have on students who have disabilities.

The development of courseware introduces new challenges for social work teachers and involves a change of approach both in developing materials and using them in teaching. Tom Hopkins summarises his experiences as a newcomer to Computer Assisted Learning (CAL). He suggests that a new approach to curriculum development may be needed and proposes a model of curriculum development.

Computers in Social Work Education and Training - Introductory Talk

Rachel Pierce, CCETSW

Introduction

This is a significant time for social work and social care education, training and assessment. I want briefly to draw out some important *achievements, developments* and *challenges* to set the context of Computers in Social Work Education and Training.

Achievements

The Higher Education Funding Council for England (HEFCE) and the Department for Education in Northern Ireland (DENI) have just completed their assessment of social work programmes in England and N Ireland. Overall their findings were very satisfactory; 21% achieved Excellent ratings, a higher percentage than any other of the subjects being assessed. The report drew attention to some strong features of social work education, the partnerships with social work agencies, the innovatory teaching methods, the adult learning-centred nature of the teaching, and particular reference was made to the adoption of enquiry and action learning methods.

However, in relation to information technology, the report was less satisfactory, and noted that there was comparatively little development of IT. Although facilities were generally good, they were under-used and IT was lacking in the curriculum and not yet integral to the social work education culture.

Developments

The first review of the Diploma in Social Work has just been completed and the parallel development of a vocational Level IV award in Social Care provides the opportunity to achieve a progressive continuum of education, training and assessment for social care and social work staff. The conference computers in Social Work Education and Training provided a wonderful opportunity to begin to address the apparent deficit in IT in the current Diploma programmes, as instanced by the HEFCE assessment, in the implementation of the new DipSW requirements.

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Challenges

The Home Office's recent retrograde recommendation that training for Probation Officers should be removed from the DipSW and effectively from higher education, has to be challenged. CCETSW views these proposals as unnecessary, damaging and wasteful and is supplying information to the combined employment and training interests which are united to oppose them. The participants at the conference had an opportunity, away from this policy and political maelstrom, to consider, explore and promote the contribution of computers to social work education and training.

This will be explored at three different levels:-

Level 1. What use do/can/should social workers and social care workers make of IT in their practice, especially in relation to care management and purchasing systems? What are the implications of this for their training?

Level 2. What contribution can IT make to the quality of education, training and assessment? What contribution to the variety and quality of learning, both theory, the body of knowledge *and* the learning of practice skills? Work in the USA (Seabury and Maple, 1993) reported positively on using computers to teach practice skills; and CCETSW's innovatory interactive video on, *Assessment in Social Care/Gathering the Evidence*, is indicative of the use of IT for the training of assessors.

Level 3. At the third level, the question posed concerns the use that can be made through linking into the Internet - possibly through JANET, the Joint Academic Network - for networking, for example, with reference to quality assurance monitoring, or the potential for research?

References

Seabury, B A & Maple, Frank F, (1993) Using Computers to Teach Practice Skills in *Social Work*, V38, N4, pp430-439 July, 1993.

The IT Implications of CCETSW Paper 30 - Workshop report

Rachel Pierce, CCETSW

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Introduction

In introducing this important topic, I have the feeling of an anxious midwife. The baby - the review of the DipSW - was finally delivered on 23 February 1995, and the revised Rules and Requirements circulated shortly afterwards as a "Working Copy". No one had welcomed this review, coming so soon after the completion of the implementation from CQSW and CSS, and some were critical of the process of the review. But I am glad to say that many are much happier with the outcome, and especially after CCETSW Council decided that 1996 was the final date for implementation, rather than the Government's earlier expectation of 1995.

Returning to my analogy, like mothers and midwives count their babies' fingers and toes, I keep having to appraise the Working Copy to check if all aspects are covered. The tight timetable provided by Government still makes me concerned that something vital may have been missed. What about IT?

Information Technology is addressed in relation to the knowledge base and practice requirements. The *knowledge base* lists, within the section headed, Work in Organisations, three important areas to be addressed:-

"*Manual and electronic systems for information collection, analysis, storage and retrieval.*

Newly-developing uses of technology in the functioning of agencies and the provision of services.

Legislation relating to data protection and access to information relevant to social work and probation practice." (CCETSW 1995, p9)

There is also coverage of IT within one of the six core competences, namely "*Develop professional competence*", in the practice requirement: "Exchange, process and report information"; which is backed by the evidence indicator, "Record, evaluate and store information in accordance with agency policies and procedures"(ibid 1995, p21). The question we need to address is whether this is enough and, if so, what should be provided?

I would like to address this with you using the same three levels of analysis as in my introduction to this issue of the journal.

IT familiarisation and basic skills for social workers to prepare them for practice.

We need to look at what is happening now, what is possible, what should be the expectation of DipSW programmes and what guidance is needed.

The contribution of IT to the development of skills.

It would be good to explore further the article I referred to earlier, from the USA, about using computers to teach practice skills (Seabury & Maple, 1993) and to find out if such innovatory work is taking place in this country also.

Internet

I would like to explore with you Internet, the super highway and whether JANET is the best vehicle:-

* To achieve E mail communications; what action is necessary to take part and to maximise potential?
* The value of networking for maintaining contacts;
* The quality assurance implications for CCETSW of being able to link into educational institutions directly on line.

Workshop Exploration of Issues

IT Familiarisation and Basic Skills for Social Workers

There is general agreement that all social workers need to be computer literate and to make maximum use of their training, they should have basic skills at entry. It is recognised that in the future this will be commonplace for all students, but that current social work students are often ill-prepared. Pre-entry advice would be helpful for them and, if necessary, early tuition at the start of the programme.

A recent letter from Jean Jeffery, Social Services Director for Buckinghamshire and Chair of the ADSS Information Management Technology Group, indicated that the group is beginning to identify standards of Information Management required for departments. It will shortly be looking at work on IT familiarisation of basic skills for practitioners, and issued an invitation to CCETSW to get together in relation to the necessary preparation for social work students in their training.

The Contribution of IT to the Development of Skills

The article, Seabury and Maple article, (1993), described evaluation of two computer-assisted instructional programs and two interactive video disc programs designed to teach social work practice skills. The programmes covered interviewing skills, goal-focused interviewing, crisis counselling and group treatment; and the students' and practitioners' responses to these programs were overwhelmingly positive. The article presents these programs to encourage other social work trainers to use this kind of educational technology and to develop their own interactive video disc programs.

Internet

There was again a variety of experience in relation to the use of JANET and other forms of network communication, but a recognition of their growing importance, particularly in communicating around the education and training network examples of developments and models of good practice. A cogent example was evidenced, namely that one programme had used IT very positively for helping dyslexic students, and knowledge of this was enormously welcomed by another of the contributors.

Conclusion

There is general agreement that the time has now come for serious take-off in relation to the use of

computers in social work education and training, that the revision of the Diploma in Social Work provides an impetus and the developments in networking technology the means to share developments and examples of good practice.

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Causa Conference & ENIT*H*5 General Assembly

20-22 September 1995
Eindhoven, the Netherlands

Information Technology in Human Services, More than Computers?

The conference will constitute a moment of reflection on achievements and on future perspectives on information technology use in human services. In order to achieve a challenging debate, international experts will introduce each theme. These experts have been asked to take a visionary attitude towards their subject and outline possible future developments. Each of these contributions will be challenged by co-presenters who will present alternative perspectives. After these confronting introductions, a pragmatic approach will be taken in parallel workshops in which participants will discuss the information given and formulate statements. The workshops focus on the needs of the practitioner, the manager/policy maker and on the training and education for human services.

General Introduction

Compassionate Computers in an Information Age?
Prof. Ignace Snellen, Erasmus University of Rotterdam, the Netherlands

Paying for Care

Future Funding Structures for Social Policy - Information Implications
Prof Howard Glennerster, London School of Economics, UK

Care Management

Care Management, the End of Secondary Consumerism?
Hans Van Ewijk, Netherlands Institute for Health & Care, the Netherlands

Professional Practice

Professional Practice for the 21st Century - Information Implications
Prof Walt Hudson, Arizona State University, USA

ENIT*H* General Assembly will take place on Friday 22nd September.

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From Teaching Computer Technology to Social Informatics

Herman van Lieshout & Peter Roosenboom, Causa, Hogeschool Eindhoven

Introduction

In this paper the history of teaching information technology (IT) in schools of social work in the Netherlands is presented, using a typology of possible approaches to implementation of IT teaching in social work education. This typology is based on the actual development of curricula, up to the concept of Social Informatics. Social Informatics is a new area of interest in the curricula for social work education. It could be defined as the whole of knowledge, skills and attitudes regarding modern IT which students of social work are going to meet in their future profession (Van Lieshout, 1993). It has attracted international attention, serving as a reference point for curriculum development activities in Flanders (Belgium) and Germany.

In educating and training social workers, schools of social work in the Netherlands are increasingly paying attention to IT. In 1989, *Causa* of Hogeschool Eindhoven started a project to develop a curriculum for Social Informatics for all schools of social work in the Netherlands. This project aimed at supporting the schools to qualify their students in the professional demands relating to the use of IT in social work practice. At first a curriculum description was produced, followed by the development of fifteen packages of learning materials based on this curriculum description. The ultimate goal is the complete integration of these packages into social work education, according to the philosophy of the curriculum (Roosenboom, 1993). However, Dutch schools of social work are free to choose to implement them or not.

This leads us to the question of the actual implementation of this philosophy of IT education and learning materials. To do this it is interesting to consider what is 'state of the art' in IT teaching in schools of social work. How is one doing relative to this? What points need to be reflected upon and worked on further in this field of interest? Thinking about our own experiences and looking at other schools of social work, we have developed a typology of curriculum development with regard to IT in social work education.

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A typology

In constructing this typology, the actual curriculum development on IT education served as a guideline. The typology can be conceived of as an instrument for self-examination, not so much on an individual level but rather on the level of schools and courses, with respect to their intentions of teaching IT within the scope of professional social work training.

In the following we present a brief outline of this typology, using as characteristics: learning objectives, the teacher's role and the student's role.

Type 1 - Teaching computer technology

The first type marks the initial phase of IT education. The hardware enters the school. One or several teachers are explicitly concerned with it. The *machines* are the centre of attention:

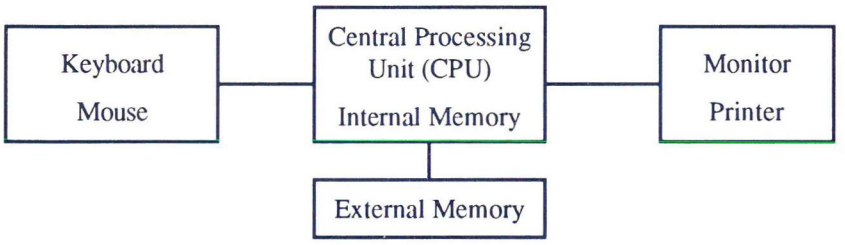

FIGURE 1: COMPUTER CONFIGURATION

Objectives : knowledge and skills regarding hardware
Teacher : system manager, hardware specialist
Student : learns to use the computer (keyboard, MS-DOS)

Type 2 - Teaching computer applications

The second type develops almost immediately after, and partly parallel with, the first one. The machine is still important, but actually it is the software that matters This type is called 'electronic data processing' (EDP). Knowledge and skills regarding hardware are obviously needed (Figure 1 is incorporated in the EDP-model), but it is restricted to what is needed functionally. The scope of attention is on software development, programming languages, algorithms to get from data to output.

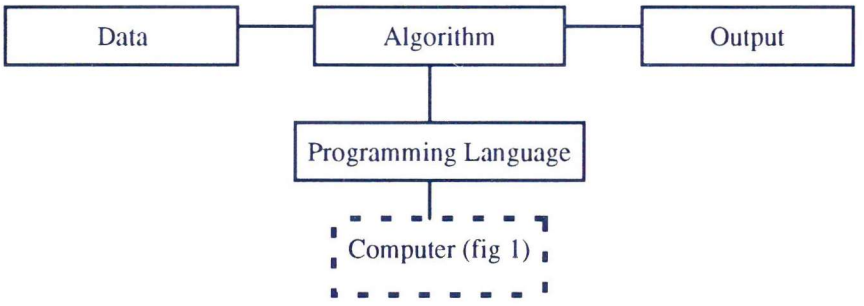

FIGURE 2: ELECTRONIC DATA PROCESSING (EDP)

Objectives: knowledge and skills regarding software (standard packages as actual contents, sometimes: making simple algorithms)
Teacher: applications manager, teaches use of software
Student: learns to use software packages

Type 3 - Teaching use of information

In the third type a substantial broadening takes place, software knowledge is no longer an objective of itself. Electronic data processing (EDP) is seen as a means to produce new information about an empirical reality. The electronic production of *information* as a process becomes the central point of attention. EDP (figure 2) is incorporated in the model of the electronic production of information. The data needed as entry for EDP (for example data about clients, human service agencies, demands for help, care for disabled persons, etc) are derived from empirical reality by means of operationalisation and indicators. Therefore, in this type, much attention is paid to the reliability, the sources ('how did this information come into being?'), and the quality of information ('garbage in, garbage out'). Sometimes, on a more abstract level, attention is paid to methods of information analysis and aspects of automation.

FIGURE 3: ELECTRONIC PRODUCTION OF INFORMATION

Objectives: knowledge and skills in using electronically generated information
Teacher: information specialist, supervises use of information
Student: learns to look for information; acquires knowledge of the electronic production of information (process)

Type 4 - Teaching social informatics

The frame is extended further in this fourth type. Acting like a (future) professional worker becomes the central point of attention. Knowledge of electronically produced information (figure 3) is no longer an objective in itself, but it serves for action, for intervention in the empirical (professional) reality. In a human services agency, information from the Client Registration System about the caseload of social workers may be seen as an opportunity to change the division of tasks. Similarly in centre for community development, information from the Activities and Participants Registration System may lead to a more active recruitment policy regarding certain parts of the target group. In short: we are concerned with social indicators, management information, and information with respect to the content of social work.

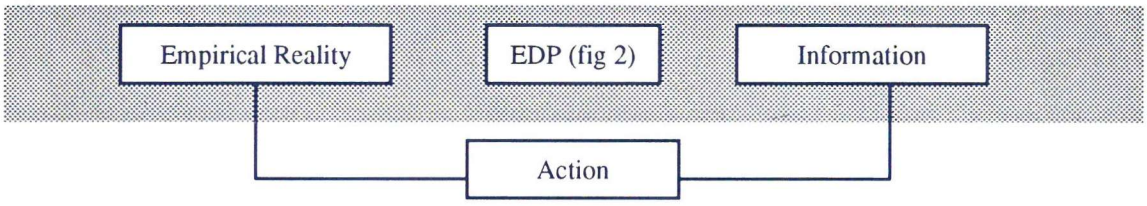

FIGURE 4: SOCIAL INFORMATICS

Objectives: knowledge and skills of professional action, based on electronically produced information
Teacher: expert in social informatics; combines informatics with thorough knowledge of the professional field involved
Student: learns to act professionally, making use of electronically produced information

Type 5 - Teaching modern methods of social work

The frame is enriched with a broader perspective: EDP-generated information is a part of the total information available (or needed). With EDP, you are able to produce important or necessary information that you would not (or not fast enough) get otherwise. That is the 'added value' of this kind of information. But information about empirical reality is not only generated by electronic processes. To obtain the specific information needed workers often use their personal networks, not electronic ones. By interviewing people, information that is needed to act adequately is built up within a short period. In very complex situations, intuition is often an (irreplaceable) way to come to precise information.

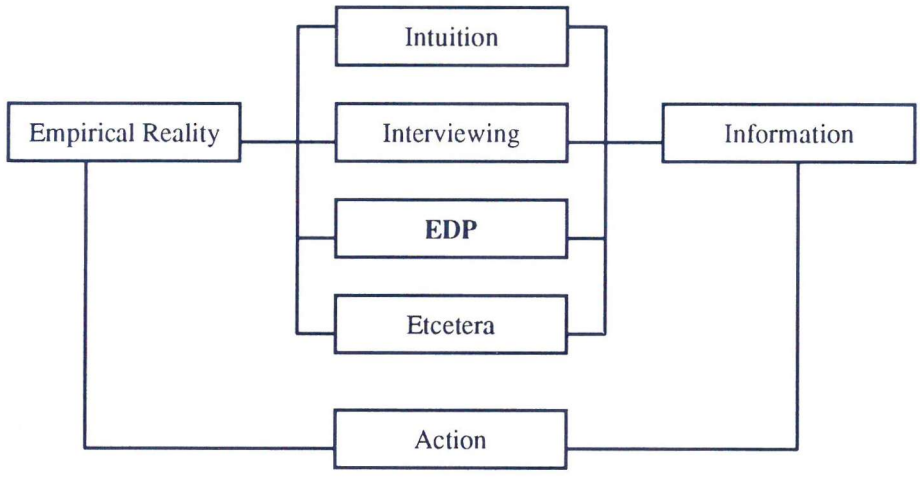

FIGURE 5: INTEGRATED SOCIAL INFORMATICS

Objectives:	knowledge and skills in professional action based on many different sorts of information (among others EDP)
Teacher:	expert in professional action with knowledge of the electronic production of information (and of other ways to acquire information)
Student:	learns to integrate EDP-generated information into the knowledge and information that is available to her/him for professional action

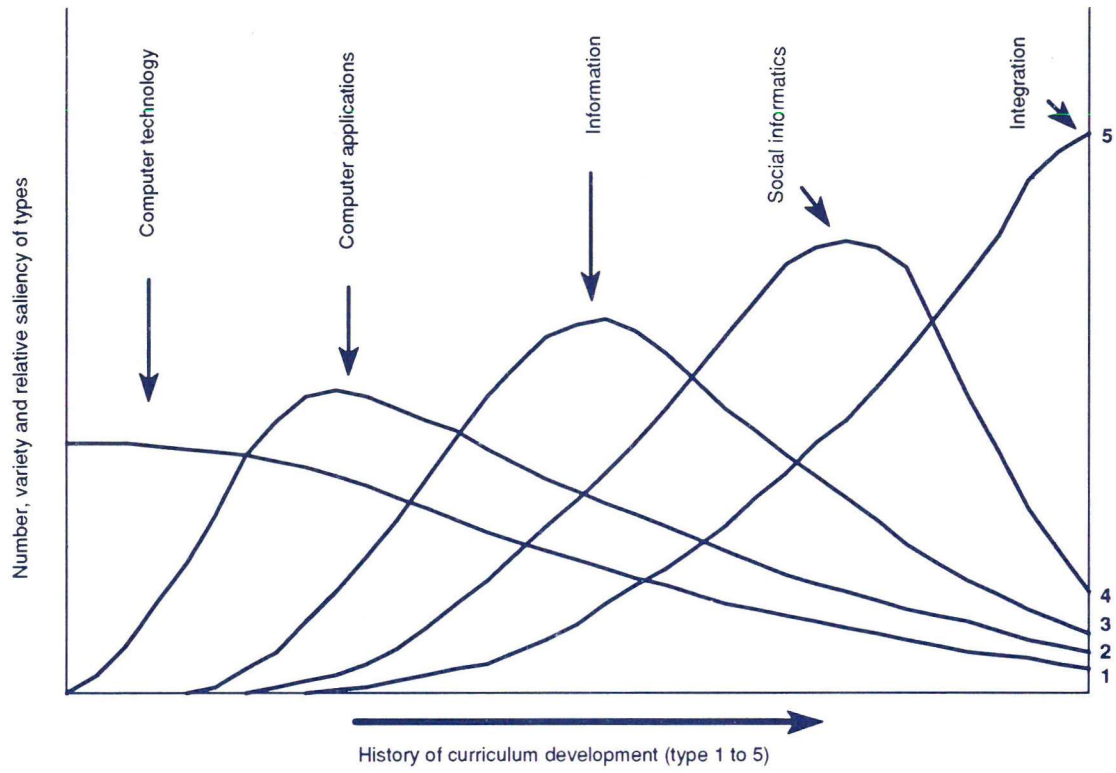

FIGURE 6: FROM TYPE 1 TO TYPE 5

Dynamics of curriculum development history

Of course, a typology like this is a construction. The types created in this way do not appear as such in reality. Mixtures and combinations of types are conceivable, as well as transitions between them (see figure 6). In addition there may be differences of types between the various schools but also, within one school, between various courses (different paces of development) and, finally, between (self) conceptions of individual teachers.

Self-examination

Why do we at Causa want to teach social informatics to our students? There is a clear necessity stemming from technological development. The mere availability of IT in social work practice makes it necessary for the social work student to acquire some basic knowledge of informatics. It may also be helpful to get acquainted with word processors, databases and spreadsheets. But the availability of technology does not make us understand the meaning of 'information'. Someone said: "*The good news is that technology can make us smart. The bad news is that technology can make us stupid. The technology for creating things has far outstripped our understanding of them*". So, in answering the question why we should educate our students on social informatics, technology cannot be used as a starting point. The only possible answer is to look for a more 'conceptual' approach. But what kind of concepts? What is needed to teach our students the value of information? We have read somewhere: "*Technology does not help much in education. The way to produce musicians is not to put a piano in the classroom. The music is not the piano.*" The answer to the question how to teach our students social informatics begins with asking what kind of social workers we want to educate. Instead of asking: *'What is a computer?'* we start with asking: *'What kind of information is needed in social work practice?'*

In the *Causa* concept of social informatics, the learning domain is not conceived of as a separate discipline but it is spread over other disciplines. The teachers of those disciplines are trained in integrating EDP-generated information into their teaching practice. The course management staff involved is backing this approach to implementation by actively planning and facilitating curriculum development in this respect.

The construction of the learning materials for social informatics is also based on this concept. However, in designing the materials, we have built in sufficient flexibility to make them fit various implementation types. So, finally, it all comes down to a school or a course asking itself what its objectives are with IT education: which is your own target type of implementation?

Self-examination begins with a description of the actual teaching practices in your own school or course. Then you may ask yourself some simple questions, with this typology in mind: Which type shows the closest fit to my school or course? Which is the most advisable type? Is there a platform in the school to discuss this? What are the conditions and possibilities to make a change in the desired direction? And so on. In short: Be careful! The use of this typology may have far-reaching consequences.

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Social Terms Scoping Project

In health care the importance of agreeing and sharing terms (labels, descriptors, etc.) has been recognised by the formation of the NHS Executive Centre for Coding and Classification, and the preparation of the Read Clinical Thesaurus (named after the Centre's Founder and Director, Dr. James Read). In addition to clinical terms, an extension has been made into terms employed in nursing and professions allied to medicine, such as occupational therapy.

The Centre for Coding and Classification has just begun the first stage in the development of social services and social care terms. This Social Terms Scoping Project will report in October 1995, and will submit options and proposals for a full-scale project.

If you wish to join a mailing list, come to a workshop, or play a still more active part in the Project, please, in the first instance, contact Bryan Glastonbury, Chair of the Social Terms Working Group, at the Centre for Human Service Technology, University of Southampton, Southampton, SO17 1BJ.

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The Scholar Project: Meeting the IT Challenge in Higher Education

Patricia Maier, University of Southampton

Abstract

Students of the next century will continue to expect their university courses to be at the leading edge of technology. Currently technology is at the forefront of a new information revolution across society and all areas of education. Computer technology is now used in education as a tool (wordprocessing, spreadsheets, databases, programming etc.), as a resource of information (computer assisted learning, Internet, CD-ROMs etc.) and as a communications tool (Email, Computer Conferencing, Mailbases etc.). University staff can no longer ignore this. Students are becoming increasingly computer literate and will able to handle large amounts of information in an electronic environment before reaching higher education. The Scholar Project is a staff development project that aims to shift the teaching and learning culture towards the next century, introducing staff to the potential uses of IT in teaching and learning.

The Scholar Project

The Scholar Project is a campus wide structure for multimedia learning funded under the Teaching and Learning Technology Programme (TLTP) by the Higher Education Funding Council for England (HEFCE). The project is funded for three years, March 1993 - March 1996.

The aim of the project is to shift the culture of the University in such a way that staff and students use information technology as an integral part of both teaching and learning.

The infrastructure to enable this shift has been located with the newly created Interactive Learning Centre (ILC); a centre dedicated to promoting a climate of change through activities such as: a staff workshop programme, an advice helpdesk, digitising and scanning services and opportunities to experiment with software in a resource centre containing eight PCs and two Apple Macs with a wide variety of software. The ILC is staffed with a project manager, technical support officer, training officer with secretarial, clerical and further technical support.

As a new centralised unit we have had to develop proactive strategies advertising ourselves across the University and engaging the interest of staff. We have achieved this by: sending out leaflets to staff about the workshop programme, writing articles for the University newsletter, sitting on strategically important committees and work groups, inviting outside speakers, organising and participating in events across the campus, exploiting the network by e-mailing staff of forthcoming events and interesting items, in addition to a World Wide Web server offering further information. Finally, we are working with other service providers such as the Library, Computing Services and Academic Staff Development

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preparing the ground for an integrated infrastructure enabling the use of multimedia across the University.

Upgrading staff skills in authoring strategies is also being tackled within the project. Interested members of staff send in their ideas for producing computer assisted learning packages, which are assessed by our management team. If their project is considered viable that person is sponsored with between £3,000 and £5,000 to carry out the project with the help of the ILC. To date we have sponsored twenty such projects, including one in social work (*see box at end of this paper*). Some of the earlier ones are now coming on-line and being used by students.

The major outcome of this initiative will be the creation of a powerful enabling infrastructure and mechanism for the delivery of an extensive staff development programme, together with services enabling staff to increasingly provide digital learning material for students. This move reflects the changing needs of higher education in dealing with increasing numbers of students, a more diverse student group and the necessity to integrate electronic information resources, as is the move in society at large.

The Workshop Programme

In order to increase staff awareness and use of Information Technology, we offer a wide ranging workshop and seminar programme in the use of Information Technology for teaching and learning, which is free to all staff. These events range from one hour to full day sessions. A sample of the titles are: Introducing Graphics, PhotoCD, Digitising Video, the Internet, Windows, Microcosm, Toolbook, QuestionMark, Resource Based Learning, Authoring, What is Multimedia?, Computer Conferencing, Evaluation and Interface Design. To date we have run thirty two different workshop titles.

We offer approximately three or four workshops per month. All are small groups (up to 10 people) allowing a seminar atmosphere to develop within the group as well as participants gaining quality hands-on experience with software where appropriate.

We mail our monthly workshop programme leaflet to administrative staff who further distribute them and periodically we mail all academic and academic related staff individually. We found this necessary as participants on the workshops start to decline if our advertising remains centralised, albeit in their own department.

To date (between July 1993 - April 1995) we have had 433 attendances over 32 different workshops (many repeated due to demand). Many staff return two, three or four times, visiting other workshops and when we omit repeat visits by staff, 271 individuals have attended. We also have 272 individuals on our database waiting for specific workshops.

Since the workshop programme essentially has an awareness raising and empowerment function, those interested in pursuing computer technology further (be it digitising slides, videos, hypertexting lecture notes etc.) can either consult the ILC for help or call on other services within the University, such as Computing Services, Central Design Service (offering computer aided design) or Teaching Support and Media Services. Advice is also available at the ILC on the educational implications of an approach. The workshop programme for many therefore, is an entry point to the digitising of teaching resources.

How prepared are lecturers to use IT?

In February 1994, we carried out an Information Technology survey using a questionnaire adapted from the EMASHE Project (Establishing Multimedia and Authoring Skills in Higher Education: an Institutional TLTP project) at the University of Glasgow. The survey generally collected information on the competency levels (self-rating) of computer skills, and the spread in the use and intended use of Information Technology in teaching and learning. The questions covered areas such as: competence in a range of software, current use of teaching aides and attitude to adapting material for the computer.

From the 1800 questionnaires we sent out we had 559 responses; a 31% response rate. Most of our respondents were from Engineering, Medicine and Science faculties. Interestingly it is these faculties that are also prominent participants on our workshop programme. Of the 559 respondents 61% (n=340) were involved in teaching (known as the teaching group).

On the first question respondents were asked to rate their abilities with respect to computers and

we found that 67% of respondents are regular users of computers and are sufficiently competent to install software and effect data transfers, 29% with some limited experience needing help while only a small minority (2%) regarded themselves as complete novices and would not know where to start. As we can see a fairly high percentage of respondents are regular users of computers, and the anecdotal evidence from our workshop programme would also suggest that those attending are generally familiar users (to varying degrees) of computers. This is not surprising since the majority of respondents are from the faculties that predominate in our workshops.

The workshops that have attracted most participants have been: Microcosm, What is Multimedia, Digitising Video, Virus Clinic, the Internet and Graphics. The more 'soft' workshops such as: Introducing Authoring, IT Solutions in Teaching and Learning, IT in Open and Distance Learning take longer to fill. The conspicuous absences from our programme and respondents of the survey are the Arts/Humanities and Social Sciences.

We were also curious to know the kind of packages staff were using most. When asked to rate themselves on certain software as: *expert user, competent user, adequate user, novice user and don't use,* the teaching group tended to have a higher rating when compared to ALL respondents. Figures for an 'at least adequate user' were:

Figure 1: Question 2 "Which type of software packages do you personally use ?"
(ranked from: expert, competent, adequate, novice user, don't use)

Software	% rating 'at least adequate' (All respondents)	% rating 'at least adequate' (teaching group)
wordprocessing	88%	93%
graphics packages	51%	54%
spreadsheets	49%	52%
Windows	47%	51%
databases	37%	37%
authoring packages	10%	13%

Also 91% of the teaching group said they had a computer for their use in the office or a near workspace. We can see that approximately half of the respondents have at least an adequate understanding of many of the basic software packages, with almost everyone being able to use a wordprocessor.

Our task therefore is to increase the numbers of those using these basic programs with the emphasis on their pedagogical use.

A pertinent finding from a question on attitudes to the prospect of adapting existing teaching materials (teaching group) to a computer environment was:

Figure 2: Question 8 "How do you feel about the prospect of adapting some of your existing teaching materials to a computer environment?"

Teachers sub group (n=340) i.e. staff with teaching commitments.

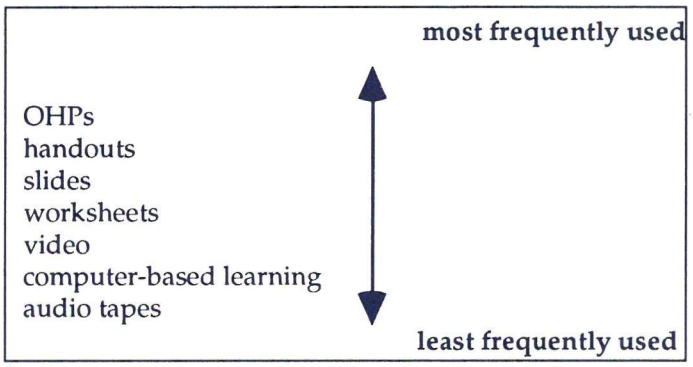
Already Do	Interested	Neutral	Dead against it	No response
18%	54%	15%	6%	5%

From these figures we can see that there is an interested set of people with teaching commitments that are not averse to adapting their teaching materials (54%). This indicates that we are not facing a major 'attitude problem' (at least not with the faculties that responded) with regard to the use of IT in teaching and learning. The demand for our workshops, when mailing to individuals, reflects this interest. However, barriers do exist, and our anecdotal evidence suggests it is more a question of the time needed to make these changes and learn new technology; a time and effort that is generally not recognised or rewarded. From discussions with other

university staff, it seems that research led universities are less likely to accredit extra work on teaching than other universities.

Question 5 of the survey has given us a view of the existing teaching culture within the University. The ranking of use of media type is as follows:

Figure 3: Question 5 "Within the last year, when teaching have you used: video, slides, audio tapes, overheads, computer-based material, worksheets, handouts ?" (ranked according to: never, seldom, occasionally, regularly)
Teachers sub group (n=340) i.e. staff with teaching commitments.



With this data we are able to target workshops more accurately to the existing teaching culture. We could infer from this information that the teaching culture is still predominantly the lecture format. Methods of increasing the effectiveness of 'the presentation' could be a targeted together with how to exploit this information in digital format, to produce a more open and flexible learning environment, eventually reducing the number of lectures.

The spread of departmental attendances on workshops has shown that certain departmental groups have shown an exceptional interest in the workshops at the ILC, namely Engineering and Medically related departments. We can now identify special interest groups within the University and network them with national initiatives, like CTI, that are subject specific. We are particularly supportive of this approach as we can combine initiatives, like CTI with newer ones, like TLTP without discarding one in favour of the other. Institutional provision of training can continue with local and national networks helping in this process.

We need now to focus on those faculties and departments that are conspicuous by their absence; Arts/Humanities and the Social Sciences, both from the workshop programme and as respondents in the survey. We need to target these faculties individually, offering tailor made workshops that allow them that first step on the technological ladder. These faculties are also disadvantaged in that being traditionally non-computer users, their budgets do not generally extend sufficiently for such equipment.

The current staff training programme offered by the ILC is flexible and easily accessible to members of staff. Popular titles are run repeatedly according to demand. If a member of staff misses a workshop he or she will most likely be able to take it again the following term. Long waits, with decreasing interest or increased frustration are therefore reduced.

Sponsoring Staff to Produce Courseware

The Scholar Project sponsors staff from a wide range of departments to produce courseware. We have introduced two models for the sponsorships:

- *Phase 1*: staff carry out all the work themselves with help, in the form of training and services from the ILC. The grant was given directly to the members of staff.
- *Phase 2*: units within the University, with technical expertise in authoring (acting as technical partners) are given the grant from several of the sponsored staff. Their designs are passed to the ILC and their technical

partner. In this way we are exploiting the technical expertise that has grown up in several units across the University and it prevents the ILC from becoming a controlling centralised unit. The ILC remains the donor and co-ordinator, with helpdesk facilities, software and training sessions at the disposal of the sponsored staff.

With both these models the sponsorship programme is aimed at increasing expertise at departmental level using interested staff. We emphasise the need for staff to consider the implementation of their courseware within the department; how technology reticent staff feel and how the courseware relates to the course as a whole.

Scholar sponsored material might be expected to exhibit some of the following qualities:

- for service teaching across departments involving large numbers of students where courses are repeated.
- for conceptually difficult topics that need various instructional approaches.
- for enhanced learning experience that presents material using a wide variety of different formats (e.g. text, audio, images, video).
- for increased access to core learning materials.

providing modular resources appropriate for a wide range of courses.

Concluding Remarks

Our experience has shown there is a constant need to maintain the pressure in advertising our workshops. We are unable to wait for the demand to happen. We need to 'whet the appetite' of our clientele. Our major thrust in this final year of the project is to find ways of encouraging staff who are technology hostile or reticent to at least engage in the debate on IT in Education.

We are not aiming for every member of staff to be multimedia courseware producers; our aim is to increase the use of digital teaching and resource material available to students. Once material is digitally available we are then able to consider different ways of delivery , so increasing flexibility for students. In the future we will probably see our students accessing much of their factual material from the campus network, either from their own home computer, one borrowed from the university, or on campus clusters. This frees the lecturer to provide more quality face-to-face sessions that go beyond the teaching of facts and reduces the number of lectures. We are at a threshold of change and we must enter the arena and determine ourselves how to harness the technology in a pedagogically sound way

University of Southampton

Department of Social Work Studies in Partnership with Scholar

One of the functions of the Interactive Learning Centre is to support University Deparments who wish to develop computer assisted learning. The Department of Social Work Studies currently teaches "Gender and Race Values in Social Work" to three course groups. The lecturers involved, Joan Orme and Kish Bhatti-Sinclair identified a number of benefits from computerising their teaching materials:

a. Computerisation will enable students to refer to source materials more easily.

b. Lecturers would be able to spend the time, usually spent delivering lectures, on role plays, discussion and debate.

The result is that a Computer Assisted Learning Module on Gender and Race Values in Social Work is now in development, supported by Scholar and the Centre for Human Service Technology.

For further information on this module please contact: Kish Bhatti-Sinclair, Department of Social Work Studies, University of Southampton, Southampton, SO17 1BJ, UK.

Computerisation would allow a proposed new Gender Studies course to use the teaching resources without the full corresponding increase in teaching time otherwise necessary.

'Unlocking Care Management[i]': Developing Computer Assisted Learning Materials For Care Management

Nick Gould and Judy Wright, University of Bath

The development of community care under the auspices of the Community Care and National Health Service Act 1990 presents a series of dilemmas for social work educators. Community care represents a paradigm shift not only in the conceptual framework of social work - introducing classifications derived largely from the market - but also structural reorganisation with the separation of purchasing and providing, greater separation between children's and community care services, and the creation of independent bodies for monitoring and inspection. More significantly at the level of qualifying social work education, there are the knowledge, skills and value-base of care management to be taught, including the determination of levels of assessment, comprehensive assessment, care planning, budgeting and review.

For social work educators whose own practice was within an earlier regime of adult services in generic post-Seebohm departments, there has been an urgent need to develop teaching materials which provide realistic material for students to be prepared for practice in this still evolving scenario of community care.

To add to these complexities, community care is also developing within a professional environment which will make more demands upon the information management and technology skills of social workers.

As a support to these curricula demands upon social work education, the Central Council for Education and Training in Social Work (CCETSW) commissioned the University of Bath's Social Services Research and Development Unit (SSRADU)[ii] to develop a package of training materials which were computer-based.

The commission from CCETSW was to develop a training package which would serve complementary functions of enhancing the teaching of care management on qualifying and post-qualifying programmes. As this learning would be through an IT medium, it would also prepare students for the realities of information management within social service organisations. Computer assisted learning (CAL) generally follows one of two approaches; firstly and simply, as a means of delivering content, or secondly, CAL can combine the purpose of courseware as a content medium with being a vehicle of instruction on using IT. The package we have developed follows this second approach as being a reflexive medium which is about care management but implicitly also supports the IT curriculum.

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The Development of TEC-SYS ('The Essential Community Care System')

The central design principle behind the package was that it would make use of SSRADU's care management software system, TEC-SYS, thereby giving students opportunities to learn to use a 'real' operational database.

The impetus behind the development of TEC-SYS was the model of community care which emerged from the Griffiths Report, (1988), leading to the publication of the 1990 White Paper '*Caring for People: Community Care in the Next Decade and Beyond*', and the NHS & Community Care Act of 1990, implemented from April 1993.

The stated aims of this model are that care should be provided for those in need in the community to enable them to live normal lives in community settings, as well as stimulating the development of the "mixed economy" of care. The role of the State was now seen as:

* supporting and strengthening the network of carers (families, friends, neighbours, etc.), as well as identifying where this network is not working;

* identifying actual and potential carers and the provision of extra services;

* enabling through purchasing, rather than monopolisitc provision, of care to meet identified needs of users.

Designed to complement these aims, TEC-SYS is a relational database (developed between 1991-1994) which stores essential information about users, resources and budgets. The system was designed for each care manager to be able to arrange and purchase care on a needs-led basis, prioritising from a devolved budget, for a small number of people with multiple and complex needs.

The essence of the system is that users' individually assessed needs are met by resource providers, so that care is needs-led, rather than service-driven. Care managers negotiate with a variety of resource providers to develop, in collaboration with users and their carers, packages of costed care, which can be regularly monitored and reviewed. From the managerial viewpoint, it allows costs to be broken down into SSD provider costs or purchaser costs, and for analysis of the spending by one or more care managers.

The program is a PC-based system developed within *Microsoft Windows*, which provides its 'graphical environment'. It is user-friendly, having been designed for operational staff and managers who may never have used a PC before.

Unlocking Care Management: a Computer Assisted Learning Package

The training materials are targeted primarily at Diploma in Social Work students, but are sufficiently complex also to have relevance at a post-qualifying level or for use by agency trainers.

Purchasers of the package will not only acquire the exercises as devised by SSRADU, but also receive a run-time version of TEC-SYS, in itself a sophisticated relational database enabling trainers to develop their own additional material.

These materials have been designed ideally for use in group settings, with students working together in pairs or threes, to achieve clearly set goals, whilst keeping key questions in mind for group discussion and feedback. However, the materials can also be used by individuals working alone. Each of the three sections of the package can be used independently of the others. This allows educators to customise their use of the materials to support not only teaching on care management, but sections of the material could also support IT, social policy or law modules.

Clear instructions and help are provided throughout, both on-line and in the manual. In a follow-up survey, 32 of the 36 students who took part in piloting the materials found the technical information and introduction to the system clear. Technical information is provided to enable users of the system to install the necessary data on to the PC, to back up their work to disk, and to restore it.

The three elements of the materials comprise:

* An introduction to using TEC-SYS;

* notes on community care legislation, guidance and practice information;

* five exercises based around key aspects of care management.

The first element, 'Getting Started with TEC-SYS', familiarises the student with the functions of the TEC-SYS system and the practicalities of inputting, storing and retrieving data from the three component data-bases. This section presupposes no prior knowledge of PCs, encompassing a guide which takes the student from how to use the mouse, through basic Windows functions, to entering and editing data about users and resource providers.

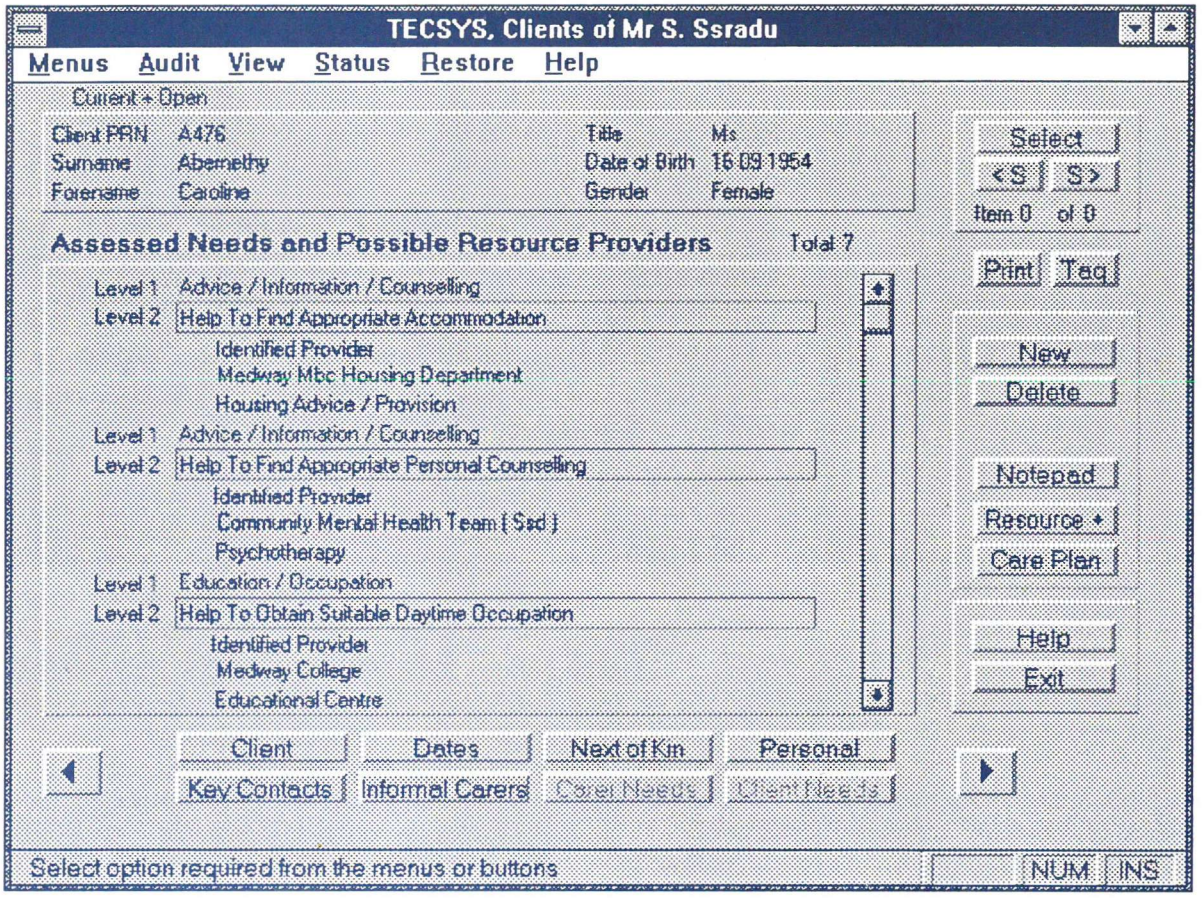

Figure 1: Screen shot of the TECSYS program

In working through this part of the materials, students learn how to load case material on to the system, thereby becoming familiar with the structure of information in the resources database, the client database and the budget database. They also discover how to manipulate the system to match resources to needs, compile a care plan, cost care plans and offset costs against a budget.

The second section, 'Legislation, Guidance and Practice Information', is primarily based upon the community care legislation, Department of Health guidance to social services, and other official sources of guidance on good practice. It is not intended to be a comprehensive alternative to prescribed reading for students, but provides a readily accessible reference source for students as they work through the exercises. Accessibility is enhanced by this section (as are all the materials) being available as an on-line help program. Students can switch between the information in the help file and the training materials program, as an alternative to using the printed manual.

The third section of the package comprises five problem-based exercises which can be installed sequentially onto TEC-SYS. Each exercise identifies the learning objectives which students will be helped to achieve by using the materials, an explanation of the exercise, and discussion points for individuals or groups to reflect upon as they work through the exercise. The five exercises are:

1 Determining the Level of Assessment and Assessing Need

The learning objectives are:

* to further students' understanding of the importance of user and carer involvement;
* consolidation of knowledge of the legislative and procedural requirements of assessment;
* familiarity with the needs-led rather than service-led basis of assessment.

The exercise takes the example of an 18 year old young woman from a British Asian family, Lilani Mendis, who has a learning disability. She has recently left residential education to live with her family but without a thorough assessment of her or the family's needs. Students are introduced to a range of contextual information. On the basis of this, they are invited to consider issues around assessment and user empowerment:

* How can the user be enabled to participate in the assessment?
* How will cultural and communication issues be addressed?

* How is the level of assessment determined; who should undertake it?
* How will carers' needs be incorporated in the assessment?

As the culmination of individual or group reflection on these issues, Lilani's and her family's needs can be entered in the client database.

2. Care Planning and Implementing the Care Plan

The learning objectives are to make students familiar with:

* the practice and procedures around care management and implementing the care plan;
* needs-led resource allocation;
* ensuring the wishes of users and carers are taken into account;
* negotiation with resource providers.

The exercise provides a series of case studies where an assessment of needs has been completed. Resources have to be matched to meet these needs and care plans constructed. The case studies are designed to introduce students to a series of questions which will need to be considered in completing and implementing the care plan.

Information about resources is given, but some of the realities of practice are simulated by constructing scenarios where resources may not be available to meet the precise requirements of a client, so forcing students to consider ways in which innovative services might be negotiated with existing resource providers. Students are also required to consider how the user will participate in the creation and implementation of the care plan.

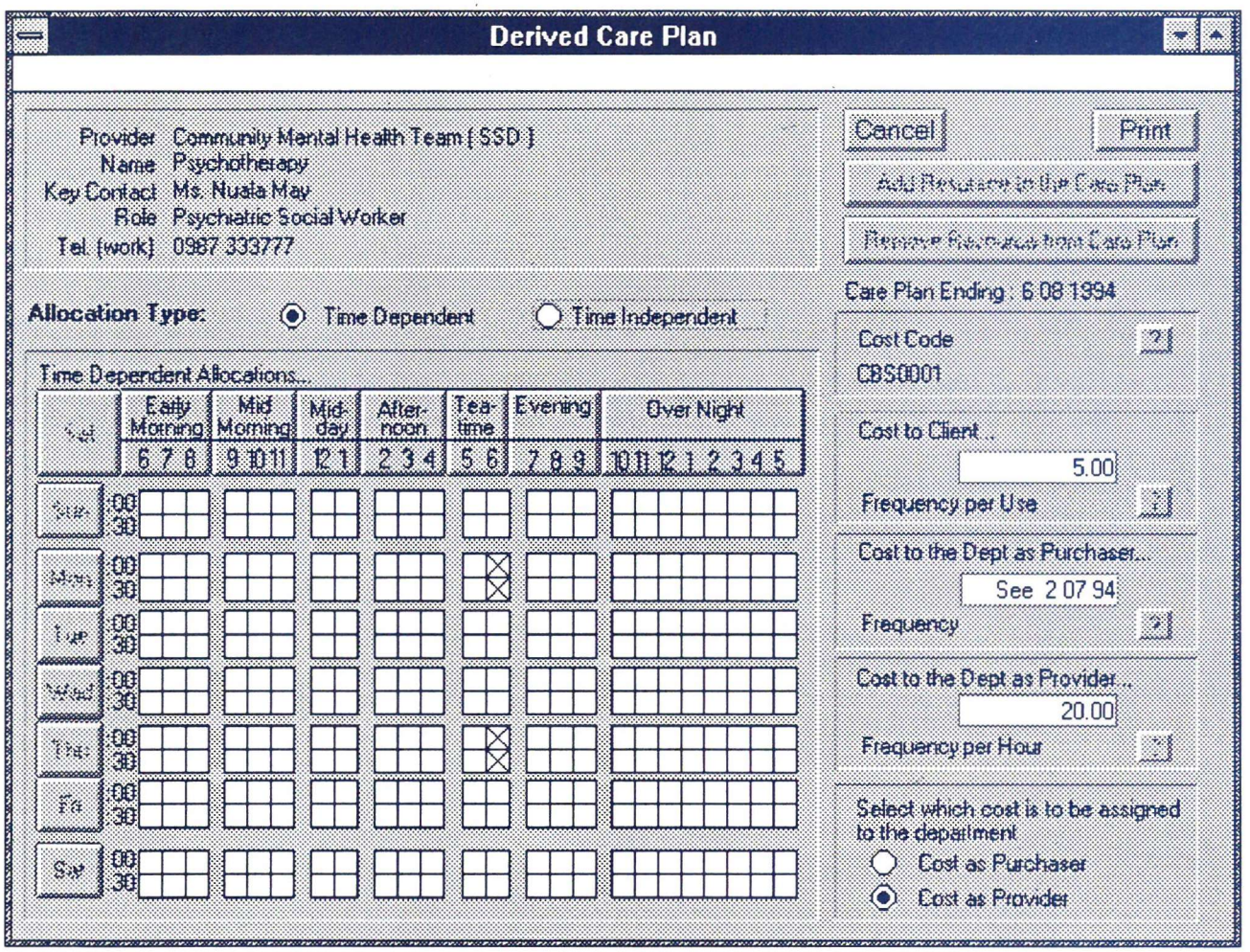

Figure 2 Screen shot of Care plan

3 Financial Management

The learning objectives of this exercise are for students to understand:

* managing a budget for care management;
* ensuring that care plans are within budgetary limits;
* understanding policy directions on the balance of purchasing of services between the public and independent sector.

This exercise is designed on the premise that the care manager has a devolved budget for a small caseload of users with complex needs. The exercise installs a series of care plans relating to five clients into TEC-SYS. The student is required to review these to ensure that spending guidelines are not being exceeded on particular items. Above all they have to consider where there is over-spending, and how costs can be reduced without compromising the quality of care. In this way students are forced to realise that budgeting is not a neutral technical exercise but something which gives rise to conflicts of values.

4 Monitoring and Review

The objectives of this exercise are that students will become familiar with:

* the practice and procedures around monitoring and review;
* the importance of on-going monitoring and the consolidation aspects of reviewing and assessing whether users have new needs;
* the importance of negotiation with the different individuals involved in the care plan;
* building up new and different care plans following review.

This exercise provides case studies of five individuals. These include information about the monitoring process in respect to their care plans. Students are required to evaluate the quality of monitoring in each case, the mechanisms required to ensure that the quality of care remains constant, and the management of review meetings. Using TEC-SYS, care plans can be amended in the light of the revisions to the care plan which are thought appropriate.

5 Publishing Information

The learning objectives for this exercise are:

* to understand the relationship between needs-led community care and local population needs assessment;
* to be able to use IT in constructing a profile of local user need;
* to be able to use aggregated data as a tool for reviewing the provision of resources;
* to understand the importance of local dissemination of information on services and eligibility criteria.

This is the only exercise specifically designed to be undertaken as a group project, and therefore less suitable for individual study. The provided scenario is that the care management team of Medway Social Services has been required by the director to construct a profile of users within the area, taking into account social and demographic characteristics and to consider this against the pattern of resources and criteria of eligibility which are identifiable from the resources database. This is to be used in compiling the Department's next published community care plan.

The team then constructs a brief report identifying shortfalls in provision and consequently the requirements for service development. The exercise provides all the data necessary to undertake these tasks, but students will need to consider how to use TEC-SYS to generate relevant reports and then interpret the data so produced.

Piloting The Materials

As far as we know, these are the first materials of this kind to be developed for training in the personal social services in the UK. It seemed essential to pilot their use in actual teaching situations so that unanticipated difficulties might be identified and addressed before publication. Also, on the basis of a pilot study we would be able to give prospective users of the materials guidance on maximising the learning benefits of the materials, tips on course design, and practical advice, such as timing of exercises.

With the support of CCETSW, three institutions were identified where the staff responsible for community care teaching were willing to make trial use of the package within their DipSW teaching from December 1994-February 1995. The DipSW programmes were sampled to provide experience of a range of academic levels (from non-graduate to post-graduate), and also varied use of the package from individual, self-directed learning to full integration within mainstream group teaching. In addition, the materials were reviewed at two Universities where there was recognised expertise in community care teaching or computer assisted learning.

Overall, the reports from the pilot and review sites were very favourable. Feedback from tutors included comments such as, "Most of our students considered that the materials were highly effective in reinforcing

their knowledge of key concepts of community care" and "I am confident that the training materials will make a significant contribution to the teaching of community care". Tutors and students experienced initial anxiety that the time and effort involved in becoming familiar with TEC-SYS would detract from learning about care management. In fact, once some time had been spent working through *'Getting Started with TEC-SYS'*, students felt confident in using the system and were able to attend to learning about care management, whilst simultaneously deepening their knowledge of IT.

As a generalisation, students reported most benefit where the materials were integrated within community care teaching, and where they worked in small groups. They were least satisfied where they worked on their own on a self-directed basis. However, this view came from the site with the least developed IT infrastructure and hence awkwardness for students in accessing PCs. There was no evident difference in satisfaction which correlated with educational level. Although students varied in their prior levels of familiarity with IT, those who were novices had little difficulty in acquiring the skills necessary to navigate the exercises successfully. One pilot site where students had extremely varying levels of IT competence reported that, "Every student was able to access the materials and access the computer without much difficulty ... The training materials and the program were seen to be logical and accessible".

Discussion

A computer-based training package cannot claim to deliver practice competence in students without other complementary forms of learning. Particularly in social work, the acquisition of expertise has to incorporate other dimensions such as experiential learning through supervised practice. However, 'Unlocking Care Management' seems to go some way towards filling gaps which exist in teaching resources both for community care and IT applications in social work. Gaps exist not only in materials for classroom-based learning, but also sometimes in the range of experience which can be provided for students in a particular agency or location.

As one reviewer pointed out, 'Unlocking Care Management' can also be a resource for practice teachers. For instance, the permeation of the case studies with anti-discriminatory issues can be used to supplement direct practice in settings where students are unable to work with users from ethnic or racial minority groups. Upon qualification students may well become care managers in agencies with approaches to community care which vary from that underpinning this training package, or where IT resources have a different configuration from those experienced in working with 'TEC-SYS'. Nevertheless, having worked through 'Unlocking Care Management' will expose them to some of the generic realities of the worlds of community care and IT.

References

Department of Health (1989) *Caring for People: Community Care in the Next Decade and Beyond*, Cmnd 849, London, HMSO.

Griffiths Report (1988), *Community Care: Agenda for Action*, London, HMSO.

Technical Notes

The minimum hardware specifications for installing the Training Materials are PCs 386DX with 4MB RAM, and 80MB Hard Disk, with Windows v3.1 or above installed. The installation comprises a series of disks, and full instructions are provided in the manual (as well as in the on-line Help file). Guidance is also given for accessing the data for each of the care management exercises.

If installing on a network, each PC must have a separate installation on the server as TEC-SYS is a single-user system

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[i] *'Unlocking Care Management will be published by CCETSW in Summer 1995. SSRADU would like to acknowledge the support in this project of Andy Stevens at CCETSW, and colleagues at CHST - University of Southampton, Exeter University, Robert Gordon (Aberdeen) University, Cardiff Institute for Higher Education and Belfast Institute for Higher Education*

[ii] ***SSRADU*** *is a university research centre, whose mission statement is "to enhance the quality of services to users of social welfare organisations through research, consultancy, and information technology applications". Currently it employs thirteen staff who have a range of expertise in social work, social research and computing*

Using Computers to Support Practice in Probation Work

David Colombi, University of Southampton

Introduction

The starting point for this paper must be to share in the deep sense of dismay at the recent "Review of Probation Officer Recruitment and Qualifying Training" by Vivienne Dews and Jim Watts (1984, 'The Dews Report'). This seeks to end probation as a social work profession and to remove probation training from its present social work context in university courses, to relocate training within the probation service itself. As such it represents an explicit and fundamental attack on the values of the service and on the quality of its future.

The main focus of this paper is on the use of computers to support probation officers in their professional practice and on the direct use of computers with clients. It briefly examines the context of such developments, addresses the issue of effectiveness and presents a framework for reviewing progress. The paper is not about the broad sweep of the use of information technology in the probation service although given the major role of the Home Office National Probation Service Information Systems Strategy (NPSISS) as a national framework for information technology developments, some brief reference to this is made.

NPSISS was launched in November 1993 as the information strategy to take the probation service into the next century. At its heart is the Case Record and Management System (CRAMS) as a nationally developed client information system being established in all probation areas. Whilst NPSISS claims to provide a broad framework, the reality is of a project with a high degree of central direction and control which reflects the priorities placed on management information needs rather than those of practitioners. These management needs primarily relate to statistical and financial data with a strong focus on performance indicators, including detailed costs of supervision and of reports. The evolution of the CRAMS system was driven by these financial management needs although following pressure from within the service, it has become more relevant to the needs of practitioners. The primary focus on management is evident in the NPSISS portfolio of fifteen planned applications with only brief reference to a resource information system, described somewhat unrealistically as "a simple database". Even this is low priority with no date announced for work on its development.

The neglected areas are three fold - practice information, resource information and as a professional tool for use with clients - with focus here particularly on the latter. Attention on the first two is primarily and briefly on the type of information involved, rather than how information should be made available and staff encouraged and enabled to use it. Those issues are integral to the wider strategy issues surrounding introduction of information technology into probation and social work agencies. However what we can note is that for any probation service that seriously seeks a positive response from probation officers to technology, provision of information that helps

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them in their day to day work with clients should be at the forefront of their plans, not as a half hearted afterthought.

Practice Information

The need for provison of practice information is not specific to probation service staff. Like other social workers, they work in a complex and demanding job which is framed by legislation and a multiplicity of national and local policy directives and guidelines. It is enormously difficult for the agencies themselves, let alone individual members of staff to locate, keep abreast of and absorb this information. Technology provides the means for it to be accessible to all staff, to be catalogued in a systematic way and to be kept up to date. The potential benefits are enormous, not least in savings to be made in photocopying costs and speeding up communications between and within all criminal justice agencies. There is now work in progress in developing a criminal justice network but little effort to take advantage of existing facilities.

What we can identify are patches of work at a local level but with little central direction or initiative. One example is the Northamptonshire Probation Service work on provision of a quarterly database on disk of circulars from the Home Office on probation related issues. Another is the Hampshire County Council HANTSNET system which includes a probation section of local policy information and a database of national information about prisons, including information about visiting arrangements for families. Whilst one must applaud their initiative, it is patently absurd that individual probation services need spend resources on establishing and maintaining national information that is needed by all probation services and other agencies. The Probation View is a probation electronic bulletin board system which was set up by a probation officer from his own home. Also at an individual level, the work of Tony Pipe in Manchester Probation Service is an example of high quality software being developed to provide professional advice to probation officers working with drugs users and alcohol abusers.

In a wider context, there are systems for child protection legislation information such as CHIAC and CCLAWs in social work and the American Keisha social work simulation program for investing child abuse. There is the new NISW database on CD-ROM and as an on-line service and we can note current work at Southampton University in development of Computer Assisted Learning (CAL) for social work courses, including specific probation learning for Pre Sentence Report writing. All of this work has considerable relevance for agencies as well as for training institutions. Probation trainees are increasingly likely to use computers as a learning tool and the proposed integration of training into practice will not have the effect of bringing those developments into probation practice, rather it will lead to probation being isolated.

Resource Information

Turning to resource information, probation staff need easy access to information about a wide range of resources to help them do effective work with their clients. This includes national and local resources such as helping agencies, probation hostels, drugs and alcohol hostels, accommodation, employment, leisure facilities and the like. The work is about making the best use of existing resource information as well as developing separate information sources for specialist probation needs. In any system it is not only the cost of establishing the database but also the cost of maintaining the data that needs to be considered, and this requires not only avoiding unnecessary duplication but also that wherever possible data providers have an interest in keeping the data up to date.

One example of a national resource database is the National Association of Voluntary Hostels (NAVH) hostels database, and there are other relevant national databases of welfare organisations as well as initiatives in individual local services. A probation resource information system requires that the different information strands are integrated within a single system and includes appropriate local data to meet local needs. One of the key problems in this complex interweaving of information from different sources is the financial and copyright issues surrounding ownership of information and the willingness of many data providers to provide information only as part of their bespoke system. What is needed is provision of data which can be imported into a probation service system that has a standard way of accessing information. There are major lessons to be learnt from the Internet and more specifically from the World Wide Web (WWW) as a means of accessing different information sources in a consistent way.

The Computer as a Professional Tool for Use with Clients

The third of our neglected areas of development is less obvious and may be seen by some as a threat to the independence and professionalism of probation officers. To the question of why we should use computers as a professional tool with clients, the evidence about the effectiveness of computers as an assessment and learning tool and about the responsiveness of clients to computers provides a powerful answer. This evidence, which has been examined in detail (Colombi, 1994), comes from experience in social work, medicine, psychology and related fields as well as from probation. It shows clients liking, trusting and responding to computers, being more honest with computers and more willing to reveal important personal information particularly on sexual matters. Poorly educated and inarticulate clients may respond the most. The evidence for liking computers is perhaps the most consistent feature, led by Joyce Epstein's study on the computer as a preferred source of information on benefits advice (Epstein, 1988). Lucas, Mullin, Luna and McInroy (1977) demonstrated greater honesty with patients in a specialist alcohol clinic in Glasgow reporting on average 33% greater alcohol consumption when interviewed by a computer. Similarly Carr, Gosh and Ancill (1983) found an average of 5.5 additional items per patient interview for the computer compared to clinician's records. The items included suicide attempts, impotence and blackouts from drinking.

One finding of particular interest was that of Slack and Slack (1977) who identified the potential of pre-interview by computer helping to 'open up' subsequent interviews with clinicians. This links to work by Schoech (1990) who identified the different strengths and weaknesses that computers and people can bring to bear in the helping process. Computers are more thorough, access information systematically, go at the clients pace, do not get bored and are non judgmental. People are better at emotions, caring, humour, divergent thinking and complex interactions. What the evidence overwhelmingly points to is the need for a balanced approach in which the strengths of each are bought to bear on providing the best available help for clients.

The principal constraints in the way of developing the use of computers as a professional tool with clients are about access to the hardware, the availability of suitable software and creating a climate in which probation staff perceive it as an appropriate and useful way of working. Attention here is on development of software, but we can note that probation staff, like social workers, are in some danger of being passed by so that the interaction with clients with helping technology may take place without their involvement. There are signs of this as in the use of computers in day centres with limited participation of probation officers and in programs like the American Community Services Locator which is about direct access of clients to services, by-passing traditional social worker assessment routes.

The software can be classified in different ways according to its subject matter, the stage of intervention at which it used or its functionality. The one used below is a hierarchy of complexity. Subsequent reference is made to specific programs which are detailed in the Software Directory - 2nd Edition issue of New Technology in the Human Services (V7, N2/3 Winter 1993/4) and includes programs developed by myself as Passada Software. The hierarchy is:

- Simple questionnaires/information provision
- Responsive questionnaires/information
- Semi-clever systems
- Expert Systems
- Decision Support Systems/Knowledge systems

Examples of simple questionnaires are my DRUGS and ALCOHOL programs which test users knowledge of the topic involved. They offer immediate feedback to users about their answers and prompt learning if they have got the wrong answer, together with attractive and simple presentation, use of colourful graphics, score tallies and analysis of results. This combination makes for a much more powerful approach than traditional questionnaires, particularly as a means of encouraging learning. Other programs such my 'An A to Z of Love and Sex' just provide information rather than asking questions, but the system allows the user to browse through topics of interest and to leap between related topics.

The next level of sophistication are programs which respond to the user in a more systematic way. A common example is a welfare benefits program such as the Ferret or Lisson Grove benefits packages.

These simplify the mass of complex information about benefits by concentrating on questions that are relevant to a client's situation. At its simplest a male user is not asked information that is relevant to maternity benefits, and successive 'branching' of questions is made at each level of information gathering. The programs work through strict application of rules to detail the user's entitlements. Such programs can be extremely helpful and the presentation of questions singly offers important advantages for low literacy users who can be overwhelmed by a complex form.

Many games can be seen as a form of responsive questionnaire. *The Story of Dave* is an interesting early example, where the user learns about the consequences of criminal actions. A similar approach was used by me in CRISIS which deals with the way different users handle a crisis. As such it tries to reflect real life in that a probation officer is not always able to help, crimes are not always detected and prison is not always the only outcome of being caught.

The concept of 'semi-clever systems' provides a useful staging post between responsive questionnaire structures and the more ambitious 'expert systems'. One example of the genre is the Automated Screening and Assessment Package for mental health work which was developed in Texas. This asks the question *"Is there a diagnosis of schizophrenia in this case?"*, which neatly gets around the complexity of making such a diagnosis. It also draws a boundary between areas which remain the domain of professional judgement and those where the computer can contribute. This approach has considerable potential within the probation service and is the basis of work by myself on a program called PRES or Pre Sentence Report Helper. In this the client has a pre-interview with the computer which then provides a written report for the client and the probation officer as a basis for their interview. It recognises the strength of the computer in systematic information gathering and that of the probation officer in working with the client as a person on the problems he or she faces. The interviewer can get so engrossed in problems presented that crucial items of information in other areas may be ignored, as for example the common failure of probation officers to identify literacy or gambling problems. In other disciplines we can see programs using similar approaches such as the Hampshire Social Services Assessment and Care Management System (ACMS) which has different modules for assessing people for care in the community.

The next level is that of 'expert systems' which seek to incorporate expertise in a particular field and make this available to others. They depend crucially on a knowledge engineer who works with a recognised expert to transpose the knowledge into computable rules that are fed into an expert system 'shell'. This approach has proved effective in many parts of medicine and other more scientific disciplines, but have been less successful in the helping professions primarily because of the problems of working with an ill defined and imprecise knowledge base. Various developments have occurred in America and elsewhere in social work and psychology, such as Computer Assisted Social Services (CASS). In Britain a probation expert system called OSIRAS was developed some years ago to advise on probation officers on recommendations in reports for the courts, but this has now been withdrawn.

The top layer in our hierarchy is Decision Support Systems (DSS) which may incorporate expert systems within a framework of multiple approaches to providing information, including statistical analysis. The example of particular interest to probation work is the system developed by Monica Shapira for the Jerusalem youth probation service which applies a normative approach to probation recommendations to courts. Probation officers have to enter information about their client and their recommendation and the system then advises what the majority of their colleagues would recommend in that situation. If these are different the probation officer must discuss the case with a senior probation officer to agree to either change or stick with the recommendation and for that recommendation to then become part of the system. The system is a powerful means of encouraging consistency in reports but can inhibit initiative and change.

Decision support systems may also include hypertext and other facilities to access information in a more flexible way than by simple topic headings. There is also work going on in applying neural networks (eg Swagerman, 1993) in social work decision-making but this is at a relatively unsophisticated stage. Likewise artificial intelligence systems have yet to make a significant contribution to social work practice.

Conclusion

The brief review of applications to support professional probation practice shows an overall picture of patchy developments, characterised by initiatives by individuals and local services with little integration of these into the national strategy. If that strategy is to have a serious claim to represent 'a vision for the future', then it needs to be redefined beyond its present narrow concern with management information and start to systematically address the needs of practice, of practitioners and their clients.

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Enabling or Disabling Technologies?

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Abstract

While computer technology can assist disabled students in fulfilling their potential, ignorance of their needs by policy makers and hardware, software and courseware designers can result in the technology presenting problems rather than solutions. For example, by replacing conventional teaching and learning materials by inaccessible computer based courseware the TLTP programme may actually restrict the access of some disabled people to higher education.

Enabling Technologies: The Potential of Computers for Disabled People

Disabled students are under-represented in higher education for many reasons. Often they have failed to reach their potential at school due to low expectations of teachers, parents and the students themselves. In many cases specialist help and support has been limited due to lack of expertise, knowledge and also funds. However, over the past 13 years following the Warnock Report (1978) on special educational needs and the 1981 Education Act, support for disabled students has increased both in school and in further education, with the LEA often providing human and technical assistance. During the same period the microcomputer has enabled many disabled children and adults to achieve their potential. In fact, while it has often proved difficult for research studies to show general benefits to justify the investment in computers for learning in schools, it has been clear that computers have proved of great value for disabled children and adults.

Blind people can now read or access text using a variety of hardware and software solutions such as scanners and optical character recognition software, screen enlarging software or screen reading software and software or hardware based speech synthesis. While speech synthesis allows any words to be automatically spoken without any extra preparation, if the text can be prepared in advance a higher quality of output is available through the use of digitally pre-recorded speech. Once text is stored electronically a Braille printer can easily produce Brailled output. It is also possible to produce tactile diagrams, although they often need expert design. The electronic storage of text and its digital transmission could provide blind people using the appropriate enabling technologies with the same access to text based information as people without a visual impairment. The Open University for example plans to make its new courses available in an electronic form accessible to blind students over the next few years.

Deaf people can communicate using palantype transcription and electronic text and visual communication systems. Palantype involves the automatic computerised 'translation' into normal spelling of the verbatim 'phonemic spelling' transcript made by a stenographer. A skilled operator using this technology can produce an easily readable real time text display for a deaf person which enables them to engage in a live conversation. The telephone text relay system at present uses a

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trained person as the relay to change speech into text and text into speech to allow a conversation to take place between a hearing person using speech and a deaf person using a text based terminal. Since text is being entered in normal spelling this does not, however, operate as fast as the palantype system. The digital transmission of text, either real time or stored through electronic mail provides communication opportunities for deaf people unable to communicate through speech over the telephone. The use of high quality real time digital video communications on digital ISDN lines also allows deaf people to communicate through sign language over the telephone.

People with physical impairments can use voice input, or any controllable movement, as a switch input to a computer system to emulate the keyboard to write, draw, talk and control their environment. Software (often called sticky keys) can allow key sequences to be used instead of difficult to manipulate multiple key combinations. Modified keyboards can allow keys to be enlarged, made smaller, rearranged in position or be given keyguards. Speech output can be used as a communication aid. Multimedia digital communications technologies can provide people who have mobility or speech impairment access to information and employment, leisure and education opportunities from their own home.

Dyslexic students can use writing aids such as a word processor with voice input, an electronic dictionary, thesaurus, spelling checker, style/grammar checker and typing prediction and speech synthesis to help with written work.

Disabling Technologies: creating new handicaps

If specialist enabling software and hardware is only available on their own machine, disabled students will still be unable to access software or courseware only available on college networks.

The lack of awareness of the needs of disabled people is clearly illustrated by the current Teaching and Learning Technology Programme (TLTP). The Teaching and Learning Technology Programme is devoting many millions of pounds to the development of computer based courseware for use by students in higher education. Although Paragraph 22 in the HEFCE circular 13/93 stressed the importance that "developments should be accessible and capable of use by all relevant teaching staff and students", TLTP funded courseware will not in fact be accessible to all disabled students or staff. While it is clear that the computer has the potential to widen access to education for disabled students, by replacing conventional teaching and learning materials with inaccessible computer based courseware the TLTP programme may actually restrict the access of some disabled people to higher education.

While in the past disabled users have often managed successfully to use third party software and hardware adaptations to access standard DOS applications the recent developments in interactive multimedia and graphical user interfaces make these solutions less than adequate if the software or courseware application has not been designed with the disabled user in mind. The very concept of a Graphical User Interface based on a desktop with overlapping scrollable windows, pictorial icons, and position and context sensitive menus accessed through an on screen pointer, can be particularly problematic for students who have limited vision or physical impairments. It is possible to design interactive multimedia courseware to minimise problems for disabled users without compromising the perceived quality for non-disabled users. Indeed there are potentially a large number of users who have some difficulty coping with detailed graphical mouse/pointer driven interfaces who would also benefit from design features such as providing the option to cycle through choices, hot spots and buttons without the use of mouse/pointer selection.

The development of interactive multimedia courseware making extensive use of graphics, charts, diagrams, animations and video in place of text may provide a stimulating exciting learning environment for the sighted user, but without thoughtful design will be inaccessible to the blind user. An alternative or complementary commentary or explanation, accessible to software or hardware speech synthesis, or using digitally pre-recorded sound, would go a long way to making the courseware more accessible to the blind user.

Multimedia courseware using speech or sound output can cause difficulties for deaf students. The use of captioning, subtitles or text based commentaries and explanations can help overcome these problems.

Badly designed and overcrowded screens can be even harder to read for dyslexic students.

It is clearly of grave concern that such a large amount of money should be spent without ensuring the consideration by all projects of the needs of the disabled. Although it is not always possible to influence commercial companies to make their software or courseware accessible to disabled people, the TLTP programme would have been a wonderful opportunity to make courseware more accessible through public funding, and at the same time raise the understanding of the needs of disabled students.

University Sector Disabled Student Support Structures

Some support for gaining employment is available for disabled adults via training through the Training and Enterprise Councils (TEC) and assessment and support is available through the Placement and Assessment and Counselling Teams (PACT) of the Department of Employment. Charities such as the RNIB provide information on available technical aids while local education authorities can provide information and advice to disabled children in school. Although the Open University has been at the forefront of developments of distance learning for disabled students, the university sector generally has been slow to respond to the needs of disabled people. While the funding councils have provided funds for widening access for students with disabilities under circular 9/93 and 8/94, since all the funded projects were institution based and focused, they did not concern themselves with the generic issue of accessibility of computer based courseware for the disabled. There is therefore at present no centre for example providing the advice and support required by the University sector to produce, disseminate and use TLTP courseware that is accessible to disabled students.

Universities have been organised around subject departments, some focusing on excellence in research, so any expertise in understanding the needs of disabled people has often been built up through particular research projects looking at narrow specific needs. It has therefore been difficult for individual Universities to develop more general expertise in the application of technology to the needs of disabled students as little funding has been available and there have been a minority of disabled students, clearly a 'chicken and egg' situation. The need for such expertise has been made more urgent by the recent growth in numbers of students with disabilities in further and higher education, thirteen years of school/LEA support for disabled children following the 1981 Education Act, the increased availability and use of microcomputers in education, and the large injection of funds for courseware production under TLTP.

The Future

The Disability legislation currently being considered by the government aims to place a statutory duty on the Higher Education Funding Councils to have regard to the needs of disabled students in its allocation of funds and seek policy statements from universities and colleges covering their arrangements for access for disabled students. The development of concepts of good practice for the purposes of quality assessment and the proposed associated Fund for the Development of Teaching and Learning will add to pressure to take account of disabled students' needs. The Mandatory Disabled Student's Allowances are very valuable but not at present available for the many part time students in higher education. More needs to be done to raise awareness and make provisions more flexible. However, more also needs to be done to support centres to be in a position to assess the technology needs of disabled students and provide advice, support and training. While some enabling technology is appropriate to be owned by the individual students, other technology needs to be permanently sited on a university computer network and so needs to be the property of the establishment. Computer technology changes and develops fast and it will not therefore be possible for all higher education establishments to be knowledgeable in this field.

There is clearly further action which could be taken to improve opportunities for students with disabilities. It is vital that the Higher Education Funding Councils considers the needs of disabled students in all the decisions it makes. This would require having at least one person aware of the needs of disabled students on all its committees. This would seem not be the case at present. HEFCE committees appear to regard disability issues as the province of the advisory group on Access and Participation which allocated special initiative money to widen access for Students with disabilities. The report on the short term Access and Participation initiative for 1993/4 stated clearly that most of the initiatives did not continue once the funding stopped. It is likely that a similar finding will occur for many of the funded projects in 1994/5. It is vital that selected projects with the potential to benefit the whole higher education

community should continue to receive funding. They should become centres of excellence with a brief to provide support and advice to other institutions. For example, the initiative by the Scottish Higher Education Funding Council of providing some two million pounds to Universities for technology equipment for the use of disabled students requires the necessary expertise advice and support infrastructure if disabled students are actually to benefit.

Although the HEFCE fund a number of CTI (Computers in Teaching Initiative) centres, they are subject based and therefore have neither the remit nor the expertise to advise generally on the use of computers for widening access to disabled students. *(ed. note - from 1995 the CTI Centre for Human Services will receive a small amount of additional funding to promote equal opportunity issues throughout CTI)*

The Joint Information Systems Committee of the funding councils (JISC) instigated their FIGIT Programme at the start of the academic year 1994/95. This initiative aims to support the introduction of new technologies and electronic communications into libraries, but gave no consideration to the importance of electronic communications in widening access to the disabled. Indeed JISC considered the needs of disabled students as being outside the scope of the FIGIT initiative.

JISC published an Issues Paper *'Exploiting Information Systems in Higher Education'* in April 1995 with a stated aim that after wide consultation it will form the basis of a strategy. The paper starts with a brief review of existing and likely developments in information systems (IS) over the next ten years and then concentrates 'on the teaching and learning experience with a particular emphasis on distance learning in the home and workplace..', the role of higher education institutions in the local, regional and global environment, research techniques, exploiting IT in running the campus. The paper is 53 pages long and makes no mention of the use or value of IT and IS for disabled students.

Conclusion

All funding council initiatives and policies must consider the needs of disabled students if new technologies are to help successfully widen access to higher education for students with disabilities and learning difficulties.

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"Old Wine in New Bottles?":

Issues in CAL Curriculum Design and Development

Tom Hopkins

Introduction

The purpose of this paper is to focus attention on a number of issues which seem, on the basis of my limited experience of Computer Assisted Learning (CAL) curriculum development, to be of importance. In particular, I want to share some thoughts as to what extent CAL requires new conceptualisations of curriculum design and development; or whether existing curriculum models and methods may be adapted for the purpose.

Models of Social Work Curriculum Development

For more than three-quarters of a century the design and development of social work curricula was largely the province of its providers, the colleges and universities. Though the creation of CCETSW some twenty odd years ago brought greater overall homogeneity of curriculum content to CSS and CQSW provision, the way in which courses were designed, structured, delivered, assessed and evaluated remained almost exclusively in the hands of academics. Course content, though it contained broadly similar themes across institutions - law, social sciences, social work methods, human growth and development, etc.- very much reflected the interests, preoccupations, experience and expertise of staff members. In the modern argot, courses were "input-driven".

The advent of Dip.S.W. in 1989, and the five years of discussions and negotiations that preceded it, marked a major shift in curriculum thinking, most significantly away from the model described above and towards one focused generally on "outcomes" and specifically on "competence". CCETSW's Paper 30 (1991) required curriculum planners to focus not on what they had or were prepared to offer in the name of qualifying education and training, but what was now laid down as the basis for a national qualification taught and assessed to national standards.

This is not the place to debate whether CCETSW has been successful in the latter objective, but simply to note the reconceptualisation of curriculum which it demanded. Planners and deliverers of Dip.S.W. education and training provision were required to abandon the "input-driven" approach in favour of a "competency-led" model. Overnight, the curriculum planning process was effectively reversed; programme providers now had to spell out in considerable detail what competencies learners would acquire through their studies. As importantly, they were required to show precisely how, when, where and by whom these competencies would be assessed.

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In the five years since the inception of Dip.S.W, though little of substance has changed in its requirements (this seems set to change soon), a number of factors within the HE field and specifically as it relates to social work have created further demands to which curriculum planners in general must respond, and which have helped create a particular set of parameters for CAL development. As yet, no name has been attached to this set of dynamics, for the purposes of this presentation I want to refer to it as the "Competence and Context" curriculum model.

"Competence and Context": an emerging curriculum model

Where the comparatively recent shift from an "input-driven" to an "outcome-led" model has placed great emphasis on proven competence, the emerging model sets the teaching and learning activities which lead to the acquisition and assessment of knowledge and skills in an increasingly complex context.

COMPETENCE

Competence may be defined by academic or professional criteria, or some combination thereof - e.g. as in a Dip.S.W./HE. programme.

INDICATIVE CONTEXTS

Organisational/Structural:
Credit Accumulation and Transfer Systems
Modular and unitised systems and structures
Semesterisation
Franchising
Accreditation of in-house agency provision
Nature and availability of programme accommodation
Diverse modes of attendance -e.g. full/part-time, concurrent, block, evening, weekend, vacation schools, etc.

Professional:
CCETSW requirements and regulations
Agency requirements
Interprofessionalism
Interdisciplinary

Access and Entry:
Diverse markets
Diverse points of access
Diverse entry qualifications and pre-requisites
Mixed student financial supports

Teaching and Learning Methods:
Open learning
Flexible learning
Resource-based learning
Distance learning

Assessment:
Accreditation of Prior Learning (APL/APEL)
Diverse methods
Formative/summative
Self-assessment

Evaluation:
Diverse evaluation requirements and approaches
Quality assurance requirements and mechanisms

Figure 1: "Competence and Context" curriculum Model

As Figure 1 shows, this emerging model draws together the recent emphasis on competence with a set of issues which I view as essentially contextual. Labelling them thus does not deny their importance; indeed, a central question must be whether, in some instances, they exert undue control over curriculum objectives and, thus, content. It is against, or more accurately, within this set of contexts that CAL curriculum development for social work is currently undertaken.

In choosing which of these contextual issues to focus on here I have had to make difficult choices. Inevitably, I have done so on the basis of my recent experiences as a CAL author/designer. However, I think the aspects I have chosen have a resonance not just for CAL authors but also for those thinking about incorporating CAL into their programmes of education and training.

1. Current knowledge about the effectiveness of computer-aided learning

As yet we know comparatively little about whether and how CAL is effective. Whilst it is true that students are enthusiastic about it in those areas where it has been extensively tested and trialed, these do not yet include social science and social work. Even if we take student enthusiasm as one positive indicator of CAL effectiveness, we must then ask some searching questions about the kind of CAL which social work education and training might require.

The bulk of existing CAL is in the "hard" science areas, where much learning content is factual; formulas, theories, experiments and so forth can be fairly easily represented in CAL form, and assessment, most often based on multiple choice inventories, can provide speedy feedback to learners. By contrast, the nature of social work is contested and contestable; everything about it is potentially ambiguous. Any attempt, then, to harness CAL to the task of social work education must first recognise these features as central to curriculum planning, design and delivery.

In other words, social work must avoid emulating the hard sciences approach, but must instead strive to produce CAL materials which are effective precisely because they deal with uncertainties and ambiguities.

Readers who look at the materials under development by the ProCare[1] project and SWIT[2] will gain a clearer picture of what this task entails - and whether we are succeeding!

2. Continuing development of CATS and Modular/Unitised programme structures

In most new universities, and a growing number of old(er) ones, the introduction and implementation of modular programme structures, most often with integrated credit accumulation and transfer (CATS) arrangements, has proceeded apace. This means the curriculum designer is able not only to specify outcomes from teaching and learning activities, but also to identify how much learning effort will typically be required to achieve specified competencies.

In converting existing courses for modular/CAT purposes, or designing new ones, this has been a relatively simple task, aided by the near universal use of the CNAA's CAT guidelines. Similarly, whilst CAL remains primarily an adjunct to conventional teaching, this presents no great difficulty - the CAL aspect of a course can be easily subsumed under the overall "student effort hours" calculations. However, it is clear that an expectation exists amongst the funders and stakeholders of CAL development that CAL materials will wholly or very largely replace conventional modes of course delivery. This means that CAL designers and authors will need a much clearer idea not only about whether and how CAL works for learners, but what kind of effort it involves. Existing courses seeking to replace conventionally taught modules with CAL, or new courses seeking validation of CAL modules, will therefore have to show the proposed relationship between learner effort and assessed outcomes as expressed in credit point ratings.

3. Projections of the development and use of new technology in higher education

Whilst curriculum planning remains centred on non-technological means of delivery - lecture, seminar, workshop, simulations, role-play, etc. - it will continue to be a fairly simple matter to forecast resource needs. Even changes of approach by staff, say from lecture/seminar format to workshop, generally only requires marginal recalculation of resource requirements and perhaps timetabling.

Curriculum planning for CAL, however, requires materials designers and authors to make "best estimates" about a number of issues concerned with both the projected state of available technology and its usage. A simple example from our experience in the ProCare project neatly illustrates this difficulty. Early in the process of materials development we agreed that the Interpersonal Skills module would be considerably improved if we could include even a small amount of integrated video material to enhance and reinforce CAL activity. We were forced to abandon our plans because we could not predict accurately the extent to which potential user sites might be equipped by 1996 with the necessary technology to support and run the software.

Similarly, whilst we hope that ProCare materials will be used in settings other than on campus - e.g. in the workplace or at home - it is impossible for us to predict what level of technology will be in common agency and domestic use two years hence.

Summary

The title of my presentation, "Old wine in new bottles?", was at least in part intended to raise the question "does CAL require a new curriculum model?". In exploring briefly the three areas above, I hope I have indicated something of the complexity of issues which confront the social work curriculum planner today. Whilst many of the issues outlined in the "Competence and Context" model are not confined to CAL development I would argue that their resolution poses particular difficulties for those who wish to explore CAL's potential for social work education and training.

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[1] *ProCare* is a TLTP project funded by HEFCE which is developing courseware for nurse and social work students. Contact: Paul Clarkson, IHCS, University of Bournemouth, 17 Christchurch Road, Bournemouth, BH1 3LG

[2] SWIT: *Social Work and IT* a model developed by CHST to teach social work students about the use of information technology in practice. Contact: Jackie Rafferty, CHST, Department of Social Work Studies, University of Southampton, Southampton SO17 1BJ

ProCare

Procare is producing curriculum materials in two specific areas - those of interpersonal (IPS) skills and research methods. the first output will be in IPS. This module comprises eight units, each covering a range of interpersonal skills for nursing and social work professional staff. The materials are presented at three levels and involve 'computer interface activity', 'search and find activity' and 'teacher present activities'.

Each unit has its own scenarios which are for the most part context specific to each profession. However, that is not to say that members of each professional group cannot look at care from the other's perspective. This can be done either by following the alternative pathway through the units or just 'dipping in'. Each unit is divided into two learning sessions which together require learners to engage in computer assisted activity for 3 to 4 hours if they are following through a particular pathway.

ProCare is offering a course structured in such a way that if desired a student can follow the whole sequence through from beginning to end. However, it is also designed to be flexible and has the capacity to integrate with exisiting teaching and student experiences - for example, as a resource set to be dipped into where appropriate. Subject to limitations imposed by your own provision of work stations, the materials can be dipped into over a long period of time or handled as a short intensive course. For any student with reasonable IT proficiency there is also considerable scope for self-learning at the student's own pace and time. See footnote to previous paper to obtain more information.