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New Technology in the Human Services

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We welcome papers, articles and reviews from both academics and practitioners. Please read the guidelines for contributors on the back inside cover and do not hesitate to contact either of the editors.

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Up Front

In this issue of *New Technology in the Human Services*, we bring you the usual mix of papers, practice reports and reviews. Our first paper is written by Janet Zinn, Valerie Simon and Jennifer Orme. They report on a survey into the benefits of on-line mental health support groups. The authors found participants to be optimistic about the therapeutic value of these groups. While this creates opportunities for caring professions, a warning is issued that further refinement of concepts and research methodology is needed.

The second article is written by Barry Barancik, Yitzhak Berman and David Knafo. They describe the development and implementation of an extensive world wide web based information system for the Israeli citizens advice bureaux.

Noteworthy are some of the shared assumptions that underpin both papers. First, the applications described in both papers assume a wide availability of computers and access to the information highway. This seems to reinforce our impression that the challenge of introducing human service organisations and staff to new technology is no longer hampered by a discussion about whether computer infrastructure is available. The emphasis is now on sharing experiences about which criteria are significant in enabling technology applications to contribute to human services' goals.

The second commonality between the two papers in this issue of *New Technology in the Human Services*, is that both describe applications that directly include the end user or citizen. This not only strengthens the first assumption, in making the claim that citizens now have access to technology as PC's are purchased for home use, but it is also a welcome outcome of the significant effort to develop applications for the managers of human

services and to a lesser extent the professionals and clients of these organisations. It is however important that the lessons from the SHIL article are absorbed and users who have low levels of education, do not speak the official national language or are living in poverty are not excluded.

In the practice report we bring you information on the development of a Dutch CD-ROM to educate and promote discussion about the onset of dementia. It was created for families and carers of older people who are developing Alzheimer's.

There are two reviews of software; the first examines a computer based simulation developed to teach child protection workers in the USA about failure to thrive situations. The second is a suite of programs developed for use primarily with probation service clients but which have wider applications in educating staff and students about some of the issues which face young (and not so young) people.

Please allow us to bring to your attention the next HUSITA conference which will take place in August-September 1999 in Budapest, Hungary. As 1998 diaries are now on sale, it is useful to remind you of this major conference in our area of interest, so you can not only put it on your mental agenda, but include it in the last pages of your new diary as well. HUSITA 5 will, as did HUSITA 4 last year in Lapland, bring together professionals, academicians and policy makers to share experiences about the 'dream and realities' of the use of new technology in human services. Information can be found at <http://www.husita.org/>

Jan Steyaert & Ann Wilkinson

From on the couch to online: evaluating Internet support groups: a research study

Janet Zinn, Valerie Simon and Jennifer Orme

Abstract

This article explores the value of Internet mental health support groups. An online computer survey was administered to 52 online group participants. Information was gathered to identify user demographics, usage patterns, and speculative value. Overwhelmingly, users perceived online support groups to be beneficial. Users cited the opportunity to gain knowledge, share, provide support and convenience as some of the reasons for involvement. Our results indicate potential opportunities for social workers and other mental health professionals to become involved in online support groups in the future. This involvement will enhance the potential for therapeutic value of these groups.

Introduction

Our study was conducted to explore the impact of online mental health support groups and define any therapeutic value using a pilot group of survey subjects. An online computer survey was administered to gather information regarding the population who utilise these support groups. Computer support groups' curative effects were measured by assessing the subjects' personal experiences. A previous study done by Finn and Lavitt (1994) concluded that online support groups had limited therapeutic benefits. We hypothesised that our study would demonstrate that participation in online mental health support groups is not a substitute for psychotherapy, but rather an adjunct to other treatment modalities. As there were a limited number of respondents this paper constitutes a preliminary exploration and can only present initial conclusions. However, since computers are becoming such a prevalent mode of communication, we also intended to find methods to enhance the finite benefits of Internet support groups. Our study's findings highlight the need for further research to quantify all the drawbacks and benefits of online groups.

The case for online support groups

The Internet has the potential to be an increasingly important resource for people in need of mental health support. Online mental health support has been expanding rapidly. Presently, there are newsgroups covering over 100 mental health issues. In addition to newsgroups, which are open mailing lists with various topics running simultaneously, there are scheduled support groups run by diverse organisations, professionals and peers. Dr. Grohol seems to carry the most comprehensive link to newsgroups and other forms of support. His web site can be found at <http://www.grohol.com/> Other resources include <http://www.support-group.com> and <http://www.nami.org>

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Some support groups require enrolment and take place in private chat rooms that keep their members virtually anonymous to outsiders. While other support groups are also scheduled at certain times, they are open to the public and anyone is welcome to join the forum. Both of these types of groups seem to have regulars who make up the core group, and in the open forums they help to weed out unwanted guests. Some organisations require fees which keep membership more exclusive than free services. Certain newsgroups as well as other support groups require members to answer questions or make it necessary for them to be connected to the subject matter. This helps to deter voyeurism. Johnson (1989) discusses the public-private status of transactions that take place over a computer network. She believes that new conventions, rules, and standards need to be applied to this contemporary method of group interaction. These types of protocols will help alleviate many ethical concerns.

There are still measures that will have to be taken to ensure a group's privacy and to maintain the integrity of the support. At present, some groups fall prey to people who want to take advantage of, or profit from, group members. Newsgroups are monitored for junk mail, but sometimes members get messages before they are deleted from their mailboxes. Most groups, however, enjoy a certain amount of privacy because the world wide web is so large it would take a great deal of effort and time to find and break into an ongoing group. Weinberg, et al. (1995) found that there is a protective sense of anonymity inherent in a computer-based group.

There may be other advantages to computer-based support groups. For example, people who are homebound due to a mental illness such as agoraphobia might be able to find support through their computers. Logistically, there is no need for a common meeting place with online groups (Weinberg, et al., 1995). People who live in remote areas are able to interact with others, around the world, who present similar symptoms. Finn and Lavitt (1994) found that computer-based group members are exposed to a wider variety of people than they would be in traditional face-to-face groups. Finally, Siegel (1986) pointed out that those using computers were more apt to self-disclose, largely due to their anonymity.

The current debate surrounding online support groups parallels concerns that arose a few decades ago surrounding the use of the telephone as a tool for mental health professionals. In a study comparing telephone and face-to-face psychiatric interviews, Simon, et al (1974) found no significant difference in either the quality or content of psychiatric data collected via telephone interviews. Colombotos (1969) also discovered a high rate of acceptance of telephone interviews. However, Shyne (1954) had concluded that an interview by telephone could not gather sufficient psychiatric data. Thus, the use of modern technology in the mental health profession is never without controversy.

Based on the small group of survey subjects, the supposition of this study is that computer support groups can be helpful in a limited fashion to individuals with mental illnesses. By taking away the barriers of social status, location, physical attributes, and emotional inhibitions, Internet groups will provide people with a communication tool designed to help them address specific problems. Computers can connect mentally ill individuals, thereby fostering a sense of community and possibly alleviating isolation. However, the lack of face to face interaction imposes limitations on the value of such groups. For example, intimacy issues that arise during the transference and countertransference processes may be thwarted. Additionally, it may be counterproductive to work with certain populations such as those who are computer addicted or those who suffer from obsessive compulsive disorders, as usage of this medium might exacerbate symptoms. There are few restrictions to the information that is transmitted via the computer. Because of this, computer support groups are not yet regulated and, therefore, may need to be supervised by psychotherapists or other specialists in related disciplines. Ethical concerns in this area include the responsibility of mental health providers to ensure that these support groups maintain a professional integrity. By using a small sample size, this study seeks to provide a representational overview of the types of people utilising online groups and their reasons for usage. It takes an initial look at the potential benefits in terms of satisfaction, and relief of symptoms that these groups may provide. And, it points the way for more in-depth studies to further measure these outcomes.

Definition of Major Concepts

This study considers several concepts which are defined in this section. An online mental health support group is defined as a computer-based, simultaneous, interactive communication in which two or more persons can participate to discuss a common issue. These can take place during a scheduled interval or on a 24-hour timetable, and the topic is predetermined by the mental health organisation who hosts these meetings.

Operationally, for the purposes of our study, online mental health support groups are groups run by organisations such as the National Alliance for the Mentally Ill (NAMI). Specifically, this study examines those groups which focus on mental illnesses such as depression, anxiety disorders, addictions, and sexual abuse survival. An individual user of mental health support groups is one who actively communicates within a group session. For this study, an individual user may or may not perceive him or herself as one who suffers from a mental illness. A mental illness can nominally be defined as a diagnosable 'clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that is associated with present distress or disability' (APA, 1994, p. xxi). Our operational definition of mental illness is a clinically diagnosed and/or self-determined psychological or emotional set of symptoms which directly relate to the

specific Internet support group topic. Our subjects self reported on the status of their respective mental illness(es).

For this study, therapeutic value pertains to long term, self-motivated change in which there is a decrease in psychological symptoms associated with the online support group topic. Therapeutic value differs from helpfulness in that helpfulness is a temporary relief of uncomfortable feelings, while therapeutic value connotes an ongoing improvement in daily functioning. These variables have been measured using an original data collection instrument. A five part scale was used to measure the level of curative effects that mental health support groups provide. The subjects quantified how much help they are receiving from their respective online support groups. In addition, demographic and usage information was obtained. While the study found that the sample of 52 was rather satisfied with its use of mental health support groups, they did not, as a whole, experience a relief of symptoms. Therefore, the study could not determine any true therapeutic value for these groups. Further studies will have to be conducted to measure what therapeutic value, if any, these groups provide. It is suggested that a long-term study is implemented to examine if these groups hold up over time.

Upon further review, it has become apparent that our definition of 'therapeutic value' may need to be reassessed. As defined in this paper, a group's therapeutic value relates to a decrease in symptoms from direct group involvement. Different groups define a relief of symptoms in various ways. For example, a substance abuser might interpret a relief of symptoms to mean abstinence. In contrast, someone with an anxiety disorder may never feel as if he or she is fully relieved of his or her symptoms, but may describe him or herself as experiencing symptoms within a certain range. Therefore, after reassessing the responses we found that a universal definition is inoperative. Further, the scale in which participants measure their relief of symptoms will differ according to the extent to which the mental illness impairs functioning. If a respondent's ailment does not present as a handicap, then relief of symptoms is not a significant finding. On the other hand, if an individual's daily life is notably impaired by his or her illness, then a relief of symptoms would be an important finding for future studies. Other factors should be considered. For example, if a participant was feeling particularly depressed on the day he or she responded to our survey, he or she may have answered the 'therapeutic value' and 'relief of symptoms' questions differently than on a day he or she felt better. Due to these discrepancies our instrument could not have perfect reliability. Because of these limitations, our study emphasises more of the helpful components of online mental health support groups. A more in depth survey including a battery of questions about symptom relief would need to be created to more thoroughly assess changes in therapeutic value.

Method

This research study's design is both exploratory and descriptive. The data collection instrument was distributed to users of online mental health support groups via the Internet. We placed the questionnaire in the electronic folders of the hosts of various mental health organisations, such as Online Psych and The National Alliance for the Mentally Ill. Additionally, we sent out notices about our survey to participants of online mental health groups. Our sample self selected from a pool of at least 18,000 users of Internet support groups (Case, 1996) and our data collection instrument was located on a web page. Because the sample was comparatively small in relation to the potential pool of users, this study can only offer a glimpse of what may be found if a larger, more comprehensive study is mounted.

Description of Sample

Of the fifty-two responses, all reported statistics (i.e., frequency percentages) exclude any unanswered questions from final calculations. On average, one to two people per inquiry skipped any given question.

Two-thirds of our respondents (65.4%) were female and the remaining 34.6% were male. The respondents ranged in age from 21 to 56 years. Approximately 69.2% of the respondents were between the ages of 30 - 40 years. The ethnicity of respondents was overwhelmingly Caucasian (94.2%). The next largest group, 3.8%, was Asian.

Respondents were highly educated. Seventy percent of the respondents had at least completed college. They tended to come from small households, averaging 2.5 people, indicating that the Internet appeals to people who have limited opportunities for social interaction at home. Respondents tended to be urban, with 60% living in a city, lending doubt to the idea that support groups would be particularly appealing to people with limited access to other outlets for therapy.

All respondents came from English speaking parts of the world; 76.9% were from the United States and 23.1% were internationally based. Australians made up the largest (11.8%) proportion of the international segment. Household income data was not reportable, due to cost of living and exchange rate conversion issues occurring in an international sample.

Respondents participated in a wide variety of support groups. Approximately 42.3% of respondents participate in online support groups concerning behavioural problems such as eating disorders (19.2%) or substance abuse (17.3%). An additional 34.6% participate in mood disorder groups for depression (21.2%) or anxiety disorders (13.5%). The remaining 23.1% participate in a variety of other support groups

Support Group	Participating
Eating Disorders	19.2%
Substance Abuse	17.3%
Depression	21.2%
Anxiety Disorders	13.5%
All Other	23.1%

Table 1 Respondents Participating in Mental Health Support Groups by Type

Most participants appear to have lived with the ailment featured in their support group for quite some time. Approximately 88.2% of the sample claim they experience the ailment discussed in the group. In addition, 78.4% have been professionally diagnosed with the ailment. Over two-thirds of respondents (78.3%) have lived with the complaint for five or more years

The 52 respondents are fairly new to online support groups and involvement is a major component of their extensive Internet usage. The majority of respondents (75.5%) have been participating for a year or less. Average involvement was 11 months. This is not surprising given that the Internet has become more accessible in the last few years.

Hours	Time on Internet	Time in Support Groups
<=2	5.7%	29.5%
2.1-4.0	5.6%	11.8%
4.1-10.0	36.4%	49.0%
10.1-19.9	14.9%	5.9%
>=20.0	24.9%	3.8%

Table 4 Respondents Involvement Online Per Week

Respondents Answering:	Experiencing Ailment	Diagnosed with Ailment	Living with Complaint for 5+ Years
Yes	88.2%	78.4%	78.3%
No	9.8%	17.6%	21.6%
Don't Know	2.0%	3.9%	0.1%

Table 2 Respondents Involvement with Ailment

For the majority of respondents, the Internet support group is one of many therapeutic support services accessed to treat the ailment. Almost half (48.1%) of respondents are currently in individual psychotherapy. Over half (58.8%) of respondents also participate in traditional group psychotherapy. Combining these two results, it appears that a total of 82.4% are in some additional form of therapy. An even greater proportion have had at least some experience with individual psychotherapy. Approximately 91.7% have been in treatment in the past or are currently in psychotherapy.

In general, respondents tended to be heavy Internet users. Approximately 73.1% of the sample spent at least eight hours per week on the Internet, with the average respondent spending 14.8 hours (range: 1.5 - 50.0 hours). Participation in support groups is a large component of participants Internet use. Approximately 62.7% spent at least 4 hours per week participating in a support group, with the average respondent spending 6.6 hours (range: <1 hour - 30 hours).

Mental health professionals currently do not have a strong presence in online groups. Approximately 70.6% report that their group is not led by a mental health professional. However, 41.2% would be interested in having the group led by one. The people who were uninterested tended to be participating in a face to face therapy group.

Findings

The objective of the study was to determine if Internet support groups have intrinsic value for participants. Value was assessed across two dimensions, satisfaction with the service and relief of symptoms. Satisfaction was evaluated by combining two survey questions: 1) How helpful has the group been for you? 2) Would you recom-

Respondents Answering:	In Individual Psychotherapy Now	In Trad. Group Psychotherapy Now	In Some Form of Therapy Now	Ever In Psychotherapy
Yes	48.1%	58.8%	82.4%	91.7%
No	51.9%	41.2%	17.6%	8.3%

Table 3 Respondents Treatment of Ailment

mend the group to others with similar problems? Relief of symptoms was determined by asking the question: 3) How much relief from your symptoms have you experienced as a result of participation? In both our 'satisfaction' and 'relief of symptoms' scales of 0 to 4, '0' represents the highest value and '4' represents the lowest value. Respondents found Internet support groups to be extremely beneficial. The average score for therapeutic value was 0.77, with a standard deviation of 0.84. Approximately 68% gave the group they participated in a score of 1 or less. Respondents scored the groups' ability to provide a relief of symptoms less highly. Approximately 65.2% gave the group they participated in a score of 2 or less

	Therapeutic Value	Relief of Symptoms
Average Score	0.77	2.10
Standard Deviation	0.84	0.91
Score of: < 1	68.0%	n/a
Score of: < 2	n/a	65.2%

Table 5 Respondents Assessment of Internet Support Groups
(0 = Highest & 4 = Lowest)

As stated earlier, members of separate groups would define relief of symptoms differently, leaving speculations about future findings when relief of symptoms will be measured in a more standardised manner.

Respondents also completed a series of rankings which indicate reasons for usage and why the service is seen as beneficial. The results further support the hypothesis that respondents find Internet groups to be highly beneficial and to have identifiable value.

The sample's respondents became interested in their Internet support group for a variety of reasons. The most frequently cited were 'to gain knowledge of the topic' (63.5%) and 'to interact with others' (63.5%). The next most important reason was 'to feel better.' Interestingly, only 50.0% of the sample specified this as a top reason for participating. Some respondents specified additional reasons for becoming interested. These included 'to know others that suffer' and 'medication issues.'

While respondents cite educational issues as one of the main reasons for becoming involved with the Internet support group, the types of issues actually discussed

tended to be more supportive in nature. The most frequently mentioned type of topic discussed was one in which respondents 'share experiences they have personally had' (69.2%). The next most frequent reason (57.7%) was to 'provide support to others.' Finally, respondents were interested in 'getting feedback concerning their experiences' (38.5%).

The Internet support groups were seen as unique in their ability to help people for primarily two reasons. Approximately 63.5% found the groups unique because they provide the 'opportunity to share experiences with others'. Approximately 48.1% found them unique because of 'the convenience of the service.' Some other responses included an 'immediacy of responses' and the fact that 'writing is helpful.' Of course, we can only theorise because these answers came from a small satellite sample size.

Respondents reported on what they found to be most and least beneficial about support groups. The greatest benefit was 'the convenience of being in your own home' (73.1%), followed by 'the variety of participants' (48.1%). Approximately 28.8% also ranked 'the ability to express yourself' as a top benefit of the group. Some respondents reported additional benefits, including 'being able to chat at any hour' and 'not being judged' by other members. Respondents reported few criticisms of Internet support groups. They cited 'computer limitations' (32.7%) as a major drawback. In addition, 34.6% listed their own personal issues as top criticisms of the service. These included 'misunderstandings due to a lack of sensory cues,' 'technical problems' and 'no body language feedback.'

Respondents were asked to specify where else they seek support concerning their issue. 57.7% of individual responses cited 'co-workers,' 'magazines,' and '12-step programs.' Twelve step programs are member-led support groups for people recovering from addictions, such as Alcoholics Anonymous. In addition, 'books' (51.9%), 'friends' (38.5%), and 'family' (30.8%) were cited as providing support.

As mentioned earlier, respondents use a mix of services to maintain their mental health. Overall, Internet support groups were ranked of highest importance by 53.8% of respondents. 'Individual therapy' was ranked highest by the second largest number (48.1%), followed by '12-step programs' (34.6%), 'other' (26.9%), 'group therapy' (13.5%) and 'discussion groups' (7.7%). Some of the 'other' services mentioned include 'peer support' and 'medication.'

Ranking (%):*	1	2	3	Other
Reason for interest:	To gain knowledge of topic (63.5%)	To interact with others (63.5%)	To feel better (50.0%)	To know that others suffer, medication issues
Topics discussed:	To share experiences they have personally had (69.2%)	To provide support to others (57.7%)	Getting feedback concerning their experiences (38.5%)	
Why online Groups are seen as unique	The opportunity to share experiences (63.5%)	Convenience (48.1%)		Immediacy, opportunity to write
Greatest benefit:	Convenience of being in own home (73.1%)	Variety of participants (48.1%)	The ability to express yourself (28.8%)	Ability to chat at any hour, not being judged
Greatest drawbacks:	Computer limitations (32.7%)			Technical problems, no body language feedback
Where else seek support:	Books (51.9%)	Friends (38.5%)	Family (30.8%)	Co-workers, 12-Step programs, magazines
Most important service of those accessed:	Internet support groups (53.8%)	Individual therapy (48.1%)	12-step programs (34.6%)	Group therapy, discussion groups, peer support, medication

* Top ranked reasons for participating in support groups. Since multiple items could be top-ranked percentages are not additive.

Table 6 Summary of Rankings

On average, the 52 respondents reacted very positively to Internet groups. No large discrepancies were seen among gender, age, education, household size, type of support group participated in, time living with complaint, length of time in the Internet group, hours spent in the group, current and past participation in individual psychotherapy, participation in an outside group, whether the group is led by a mental health professional, and whether or not a respondent wants the group led by a professional. Future studies involving a larger sample are recommended to identify any statistically significant differences in perceived benefits within a group.

Such studies might identify when online support groups are most and least helpful. For example, the

amount of mental health support any given user has available will vary. It may be that the fewer the outside options, the more important Internet support groups become, and the greater the perceived value. With a larger sample size, differences in satisfaction and relief of symptoms might emerge depending on the nature of the group accessed. Participants in a recovery group might find groups more beneficial than those in an obsessive-compulsive group. In the latter group participants may find their symptoms exacerbated with ongoing interactions. Finally, in future studies, participants will have had more time to participate on this relatively new phenomenon. Testing could be done to ascertain if length of involvement impacts value.

Discussion and Conclusion

Overwhelmingly, the 52 respondents viewed online mental health support groups as a helpful component in their lives. Members of various groups commented that their primary support group was a sounding board to discuss symptoms associated with their mental illnesses. Many participants received comfort that others shared similar experiences, thus validating their own ordeals. However, since a large percentage of the 52 online respondents are also in additional outside therapies (82.4%), it is difficult to measure the impact of Internet groups alone using our limited findings. Sampling a larger pool of respondents and including a measure for the benefit derived from outside groups might enable us to get a more precise measure of the overall value of Internet groups. Since the majority of participants have lived with their ailment for over five years, it would be interesting to study if and how online support groups can be helpful to those at the onset of a mental illness. In addition, perhaps there are possible computer applications for prevention of disease. Since online mental health support groups are ostensibly in their infancy, more research is needed to further substantiate the full potential, as well as the limitations, of the therapeutic nature of these support groups.

Our study, though suggestive of certain trends, also raises new considerations about the efficacy of online support groups. It may be viewed as an invitation for researchers to do further investigating on the far reaching benefits of online services in mental health. We recommend that support groups have a sounding board for those who have not found them helpful. This way improvements can be made so more people are served. It would be interesting to survey the same respondents a year from now to compare our findings. Or, we could retest the same survey several months from now with a far larger pool of respondents to see if the groups only provide temporary relief. A study with a control group not using Internet support groups might help to decipher how the groups uniquely help their participants.

Overall, our findings indicate that users would recommend their support groups. We would have to add questions to determine why they would recommend these groups. In that way, we would find out if the group is considered to be a novelty or a real means of providing internal support. Once more people from a variety of socio-economic and cultural backgrounds are using the Internet, we will have a greater opportunity to measure the value of online mental health support groups. Although we have no conclusive results of their therapeutic value, we are moving toward discovering the helpfulness of this tool for the mentally ill.

Presently, online mental health support groups are being used predominantly by white, middle class citizens. As more populations obtain access to the Internet, online support organisations will service a greater variety of individuals. Because of this eventuality, social workers and other mental health professionals may be consulted to provide services on the Internet. The potential for a new type of therapeutic practice is substantial. Clientele are

already accessing psychotherapists from online sources. Social workers have formed several mailing lists and newsgroups for the purposes of networking, creating research applications and sharing professional ideals. Since communication is a key component of any social work discipline, the world wide web, as a communication tool, can only open up doors to a myriad of practice opportunities.

Social work research has only begun to skim the surface of evaluating online mental health support groups. A pilot study, such as ours, only emphasises the need to create a longitudinal study which takes a baseline survey of symptoms when participants begin using an online support group. Then, every three months an update could be conducted to survey changes in symptom relief. As time elapses, we would be able to determine what impact, if any, participation in online mental health support groups have for individuals. We may find that support groups are best used during a crisis and help the participant get through a particularly troublesome period. In that event, long term usage would not necessarily be therapeutic. On the other hand, we might discover that ongoing participation aids a group members' ability to communicate and relate to others, thus impacting significantly in their daily lives. In that event, we would discover that computer groups may have many of the same benefits as traditional group therapy.

The significance of the Internet on social policy is extremely important. Social workers could monitor or lead support groups to maintain integrity of service on the Internet. Professional supervision can promote the therapeutic benefits of online support groups as well as inhibit misinformation. For those who want peer support, a social worker could act as a consultant when professional services need rendering. Additionally, aftercare by a social worker could be utilised on the Internet following in-person, time-defined groups. And, in that same vein, family treatment might be possible via computer for family members in different parts of the world. The Internet can be viewed as a tool which can expand to reach a great number of people, or it can contract to address the targeted needs of a distinct population. However, more research is needed to identify who will be serviced best from online computer treatment. We recommend that Internet groups provide a feedback mechanism for participants to express what has been helpful and unhelpful. This way improvements can be made so more people can be served by online support groups. In the end, though, it is promising to know that mental health professionals will be able to assist greater populations as online supports groups continue to improve and grow.

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References

Case S (1996, February 2), A letter from the president. [On-line]. Available: AOL.com

Colombotos J (1969), Personal versus telephone interviews: effect on responses. *Public Health Report*, 84, 773-782.

Diagnostic and statistical manual of mental disorders (4th ed.). (1994) p. xxi. Washington, DC: American Psychiatric Association.

Finn J & Lavitt M, (1994), Computer-based self-help groups for sexual abuse survivors. *Social Work with Groups*, 17 (1/2), 21-46. Binghamton, NY: Hawthorne Press, Inc.

Johnson D G (1989), The public-private status of transactions in computer networks. In C.C. Gould (ed.) *The Information Web: Ethical & Social Implications of Computer Networking* (pp. 37-55). Boulder, CO: Westview Press, Inc.

Siegel J, Dubrovsky V, Kiesler S & McGuire T W (1986), Group processes in computer-mediated communication. *Organizational Behavior and Human Decision Processes* 37, 151-187.

Shyne A W (1954), Telephone interviews in casework. *Social Casework*, 35, 342-347.

Simon R J, Fleiss J L, Fisher B, Gurland B J, (1974), Two methods of psychiatric interviewing: telephone and face-to-face. *The Journal of Psychology*, 88, 141-146.

Weinberg N, Schmale J D, Uken J & Wessel K, (1995), Computer-mediated support groups. *Social Work with Groups*, 17 (4), 43-54. Binghamton, NY: Hawthorne Press, Inc.

IMPACT

Increasing the IMPACT of assistive technology

Announcing a new project which aims to increase the awareness of and knowledge about assistive technology amongst professionals in health and social services.

These aims will be pursued primarily through survey of existing and development of new educational materials for pre- and in-service usage in different European languages (using both traditional methods and multimedia). The newly developed educational material will consist of student's manual, teacher's manual, case studies, software and sample data. In addition an European network will be established bringing together persons from user groups, educational partners and service providers. This network will disseminate and enlarge the results by exchange of information (newsletter, WWW) and experiences (workshops).

The project is due to start in January 1998. It is a partnership between Causa, the Netherlands; CHST, UK; Stakes, Finland; The Work Centre, Ireland and The Aarhus School of Social Work, Denmark.

For further information see <http://www.fz.hse.nl/causa/impact/> or email: causa@fontys.nl

Issues in Web Site Design for Citizens' Advice Bureaux (CABs): The Israeli CAB Web Site

Barry Barancik, Yitzhak Berman and David Knafo

Abstract

Citizens' Advice Bureaux (CAB) exist to provide the public with information on their rights and obligations and to ensure the citizen's full integration into the life of civil society, realisation of those rights and fulfilment of those obligations. The Internet, through web sites enables CAB's to extend their mission with the potential of reaching more citizens. This paper presents criteria for creating a CAB web site. The criteria are: clientele and access; organisation of site material; amount of information presented; dealing with complex cases; and updating of site material. Shil, the Israeli citizens' advice bureaux is described and evaluated. The Shil site is clear and informative. However, it was considered convenient to use by Shil volunteers working in CAB offices and for fairly well educated and informed people.

Shil: the Israeli Citizens' Advice Bureaux

Israel's CAB (called by its Hebrew acronym, Shil), which is adapted from the British CAB model, was established in Israel in 1957 as a voluntary service. Since 1974, it has operated as a government service under the Ministry of Labour and Social Affairs. There are 70 Shil centres and branches operating in 40 towns in full co-operation with all social welfare agencies in their communities. The centres, generally situated in easily-accessible central locations, have walk-in clientele and also receive queries by telephone. They are equipped with a computerised data bank, and various written materials published by local authorities, government ministries, service agencies and volunteer organisations.

The goals of Shil are 'to provide the public with information on their rights and obligations and to ensure the citizen's full integration into the life of the State, realisation of those rights and fulfilment of those obligations'. (State of Israel, 1997)

The service, provided within the community by selected, specially-trained volunteers supported by part time workers, is free, confidential and universally available. The volunteers include specialists in various fields, such as lawyers, who provide free legal advice. Shil provides information on social and personal matters. Some questions must be referred to the appropriate professional agency for assistance (such as referring clients to income tax advisors). Most of the referrals to Shil are on personal, social and work-related subjects. The main subjects are housing, taxes, social security and employment. In 1996, Shil received 99,632 requests for information and assistance from the public. 38.7% of these requests came from new immigrants to Israel.

Shil does not only provide information. An important role of Shil volunteers is to be involved with the client's request and follow up referrals. 45% of those cases which were handled successfully by Shil required continued attention and follow-up. This includes: follow-up, involvement and mediation between the client and the appropriate agency or service until the problem is solved. All referrals are recorded and classified, which enables feedback to be given to the various agencies in the form of proposals for legislative changes or amendment of regulations in order to improve services or correct deficiencies in the public network.

Information Technology

In the social services, the potential of web publishing is recognised. Shil, which has traditionally operated through neighbourhood storefront agencies staffed by

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volunteers, established a web site in November, 1995 which allows the agency to disseminate information to a larger audience and which is intended as an aid in training its volunteers. (URL: <http://shil.huji.ac.il/>). In 1997, the Shil web site was reorganised to make it more attractive and to take advantage of new developments in web design. New information topics were also added. This new version went on-line in June, 1997.

In this article, criteria will be established for examining the role of a CAB web site in providing the public with information on social benefits and government services. We will evaluate the Shil web site based on these criteria. The authors' hypothesis is that a web site can facilitate the operation of a CAB, but that this technology alone cannot perform or replace the organisation's key functions. Further it is hoped to develop criteria to guide the establishment of web sites intended for social service purposes. The investigation will begin with a brief review of the use of information technology in social welfare settings.

The knowledge age or information society is considered the opportunity to empower every person to become part of 'cyberspace' or the land of knowledge. It creates the potential for vastly increased human freedom (Dyson, 1994). It has been pointed out that ordinary people have a vested interest in the transition to an information society (Information Society Forum, 1996). Yet it is the focus on the ordinary people which raises the issues of the impact of the information society on people. In the Interim Report of the High Level Expert Group on the Social and Societal Aspects of the Information Society (European Commission, 1996) it was pointed out that 'the benefits of the Information Society will depend crucially on the way information and communication technologies will be integrated in society at large' (p.1).

One of the newest developments in information transfer is the development of information sites on the World Wide Web (WWW). The technological advances utilised in the WWW allow even those with a minimal amount of training and a modest investment to be able to publish written documents, pictures, audio and video and present them to an international audience.

Steyaert and Gould (1997) report on the inequality which exists between those who know how to use the technology and those who are computer ignorant. They point out that familiarity with technology remains a barrier for many people to utilisation. This reflects Nowotny's (1990) earlier classification, 'the misfits of the information society' (p. 77).

The inequality among people in reference to their ability to benefit from the information society and the possibility of this leading to social exclusion has led to initiatives in the area of diffusion of the information society. A working group within the Information Society Forum (1996) of the European Commission noted the need to bring public services nearer to the citizen. It also recommended interactive public services to households. On an operational level there have been programmes which bring information to 'the people' (Dawson et al., 1987; Epstein, 1984). Yet, when observing the scene of information transfer between the bureaucrat and the citizen it is still the face to face relationship which is the primary means

of communication. Citizen Advice Bureaux (CAB), especially in the United Kingdom and in Israel, play a major role in information transfer.

Shil Site Description

The Shil web site is meant primarily for use by Israelis. The site is presented, at this time, in Hebrew. There is one page in English, which gives a comprehensive overview of Shil's objectives and operations. Additional pages are planned in Arabic and Russian, to address the other major cultural-linguistic populations in Israel.

The web site is meant to mirror the function of Shil's centres. It has comprehensive information on the whole range of issues which Shil has always addressed. Information on the web site is divided up according to the following topics:

- Marital Laws
- Social Security
- Housing Issues
- Compulsory and Higher Education
- Obtaining Legal Advice
- Taxation and Tax Exemptions
- Employees' Rights and Other Labour Laws
- Military Service
- Consumer Issues
- Immigrant Absorption
- Registration of Changes in Personal and Commercial Status
- Welfare Laws and Benefits
- Contact Information for Public and Voluntary Organisations
- Miscellaneous
- What's New

In addition to the above topics, the site also includes a search engine, a section of frequently asked questions (FAQ), and a bulletin board for visitors to post queries and opinions for viewing by other visitors. The site is organised to provide immediate, open access to all topics. This is accomplished through a menu made up of links to all of the above topic headings. The menu stays on-screen at all times, placed vertically on the right side of the screen in its own frame. The remainder of the screen is taken up by whichever topic has been chosen, displayed in a second frame. Clicking on a topic heading, such as 'Housing Issues,' brings up a menu screen listing all of the subtopic headings related to housing. Clicking on a hypertext subtopic brings up a screen of text providing information. For instance, clicking on the heading 'Government-supplied Mortgages' brings up a text explaining a citizen's rights to government mortgages and some discussion of the application process. All information appearing on the screen is presented as text files.

The information in the site, as noted in the bulleted list above, is based on an 'organisational orientation.'

Information is organised according to the agency which is providing it. For example, all of the benefits granted by the Social Security Agency are listed under the heading 'Social Security,' and all of the information on welfare benefits, as granted by the Ministry of Labour and Social Affairs, is listed under 'Welfare Laws and Benefits.'

Issues for a Web-based CAB

Designing and establishing a site on the Internet requires planning. Most sites are targeted to a specific audience, such as model car enthusiasts, Renaissance scholars, scientists, or vacationers planning a trip to Paris, to name a few. People with interest in their specific topic area will provide the majority of traffic at the site. Through this process of self-selection, the site designer is familiar with his/her clientele, how to address them and, generally, can anticipate their information needs.

Designing a site for a CAB, which, by definition, is meant to address the needs across the population spectrum, requires even more forethought and attention. Not all users will be well-educated, physically healthy, and self-aware. Instead, there may be users without good reading/language skills; those with cognitive difficulties or disabilities; or those who may not even know specifically *what* help they need - only knowing that *something* is wrong and that there are services which may be able to help.

Considering these potential situations, there are a number of issues which must be taken into account when designing a site. These same issues may also be used as criteria for judging the quality and effectiveness of a CAB web site, once benchmarks have been established. They also highlight the limitations which the web presents for CABs, as no amount of good design and public promotion will solve some of the problems which are inherent in the medium. Some of these are explored below.

Clientele and Access

A CAB is mandated to provide information to the entire populace in its area of operation. As a means to fulfilling this mandate CABs gain expertise in consumer and tax issues which have appeal for people of middle and upper incomes. Despite this, the majority of CAB clientele are people with low incomes who are seeking benefit and service information.

In theory, a CAB web site is accessible to any person in the world with access to an Internet-ready computer. This, it would seem, would make it an ideal means for distributing information to the public. The problem, however, is that accessing a web site on a computer requires both material resources and a certain educational background. To get started, one needs the appropriate computer equipment and access to the Internet via an Internet service provider. Internet use also requires a basic familiarity and comfort with computer use.

The amount of material and intellectual capital required to access the web begs a question: how many of a CAB's low-income clients, the ones most in need of the CAB's services, have access to the computer equipment, and how many have had the opportunity to become familiar with using personal computers?

This question is addressed partially by the growing appearance of Internet-ready computers in public libraries. The rate at which computers are available in libraries, however, is dependent upon a) the proliferation of libraries in the area and b) the libraries' budgets. This is not much of a

solution for the people without basic literacy or without computer literacy or with cognitive problems or disabilities which the libraries may not be equipped to address. In the United States, provision is being made to ensure that all schools and libraries will have access to the Internet starting in 1998. This will be achieved, in part, through funding a significant subsidy of telecommunications charges to those institutions (IS Trends, 1997). In Israel, there are ongoing efforts to establish a programme to provide computers for all underprivileged school children and to increase their computer literacy.

Organisation of Site Material

The web site must be organised in a logical manner. It must be easy for a first-time visitor to navigate. It must be clear to a user with a specific information need exactly where on the site the answer may be found.

While there are numerous possibilities for organising a site, there are two possible orientations which are worth examining. One of them, mentioned previously, is the 'Organisational Orientation.' Another is the 'Problem Orientation' or 'Population Orientation.' In the former orientation, the information on the site is organised according to the agency which has responsibility for that field. For instance, all information pertaining to social security benefits is listed under the heading of the Social Security Department. In the latter orientation, the information is organised according to the type of problem or population for whom the information is intended. In this orientation, all social security benefits would not be grouped together, as above. Rather, under the heading 'Elderly,' one would find all information and benefits for the elderly, regardless of which agency was responsible for that field. The elderly heading would include information on social security benefits for the elderly, but would also include information on special golden-age tax breaks, nursing homes, day centre programs, meals-on-wheels and other services for the elderly.

A disadvantage to using an organisation orientation is that it assumes that the client knows which organisation deals with his/her problem. A problem-oriented approach can use the language of the client, therefore making the information more accessible.

The deciding factor in selecting an orientation is understanding for whom the site is meant. Who are the primary users of the site and what are their needs? This applies to all elements of setting up the site. Careful thought must be given as to the aims of the CAB setting up the site and to the interests and abilities of those who use it. Keeping these two elements in mind will go a long way toward ensuring that the site is effective, informative and utilised.

The Amount of Information

In theory, web sites may hold as much information (written, video, sound, and downloadable text files) as its designer desires. Entire books may be presented as one screen or as a series of smaller screens. In practice, web design guides emphasise presenting information in short, easy-to-comprehend pieces. This allows the user to decide whether

the material is of interest without wasting online time waiting for the whole text to download to his/her computer. Losing the user's attention or intimidating him/her are constant threats. Information should be presented in as brief and concise a manner as possible. Difficult concepts should be explained and complex topics made easy. Pictures and graphs are often easier to comprehend quickly than text.

These guidelines are necessary to ensure that the site's information is easily understood and the CAB's mission fulfilled. It is also desirable that the site be designed attractively. Considering that the content of a CAB site tends toward being dry, pleasant graphics and an uncluttered screen layout will increase the user's enjoyment and may encourage him/her to use the site with regularity.

Complex Cases

The CAB worker is faced with complex cases with regularity. While many clients may only need an address or a short explanation as to which authority deals with their personal matter, there are those clients who have more complex requests and greater needs. Complex cases include:

- benefit determination, which requires a great deal of the client's input about often sensitive issues;
- clients who need to be supported and empowered as well as given information; and
- clients who are unable to define their problem and need to work through the issues in order to give the problem a name and decide on a course of action.

Technological advances have been employed to address some of these situations. The most common of these responses is the proliferation of benefits determination software (Dawson, et al, 1987). This software utilises various forms of expert systems for decision making and applies them to benefit questions. However, requesting personal information about clients over an Internet phone connection creates a security problem which may make on-line benefits programs unfeasible, in addition to existing arguments about the accuracy of the programs themselves. The other issues mentioned above are not addressed by the current technology. Furthermore, they are probably beyond the scope of any technological solution which was meant to be a substitute for human interaction.

Updating

Keeping a web site current with developments in government, the voluntary service sector, and the consumer sphere is a challenge. The actual act of updating the site is a minor technical matter, but the collection and editing of the content requires careful attention and a serious time investment. Nonetheless, it is a necessity. Clearly, providing information which is out of date is, at best, an exercise in futility. At worst, it misleads information users and may cause them to waste time and money. A site which is out of date is also liable to damage the credibility of the CAB organisation which established it. People will also stop referring to an outdated CAB web site.

For an information site to be effective, there must be a designated person who is responsible for following up

changes in laws and eligibility requirements, telephone numbers of agencies, and any other change in the information which is presented on the site. This person, or someone else in the CAB, must also be responsible for translating that information into a form which is suitable for the web and putting it on the site. If no one is assigned these tasks specifically, it is doubtful that they will be performed.

Evaluation of the Shil Web Site

Web sites are particularly suited to evaluation due to their dynamic nature, problems may be corrected instantly by making the desired changes and uploading them to the server. In the case of the Shil site, analysis is used not only to correct mistakes and point out strengths. Rather, evaluation may help the organisation to better define for whom the site is intended and what kind of tasks the site is best suited to accomplish. The Shil web site is believed to be underused by the Israeli public. Few people know that the site exists and even fewer know its address. There is a counter to log the number of visitors to the site, located on the server. There has been very little publicity at this point regarding the site. There is some evidence that the site is being visited, however, as shown by the use of the message posting section. One month into the site's existence, there were twenty postings. Some postings are queries for more information, some postings are responses to those queries, and some are comments on the site and on public affairs. These postings are evidence that the site is reaching some kind of audience, although the demographics of that audience cannot be determined.

As discussed earlier the Shil target population is primarily poor and disadvantaged people. Web technology and its use, it is thought, are culturally foreign to Israel's socially and culturally disadvantaged populations. This provides a partial explanation for underuse both in terms of educational/cultural comfort with computers and in regards to access to the needed equipment.

The designers of the new Shil web site intended the site to be a tool for the volunteers who run Shil's neighbourhood sites. Shil offices have been equipped with the appropriate hardware, and Shil's volunteers are being trained to use a web browser to access the site. Site content, which has always been comprehensive, hasn't been changed to refit the mission.

Lacking feedback about the site, it is difficult to gauge the appropriateness of the site's information to the needs of its general public clients. As a tool for helping volunteers, however, the site is quite extensive and clearly-written. Most topics in Israeli civic and legal life are addressed in clear language, comprehensible by anybody who is comfortable reading a newspaper. The site appears to be an appropriate tool for use with volunteer workers.

Organisation

Information on the Shil web site is grouped and displayed according to an 'Organisational Orientation.' The use of the Organisation Orientation to organise information on the Shil web site reflects the bureaucratic mindset of its designers, who identify information and benefits by their producers and

not by their consumers. However, as the use of the Shil web site has been transferred from the general public to trained Shil volunteers, the organisational orientation might be becoming a more appropriate mode of presentation.

Amount of Information

A user seeking fairly detailed information on a topic, such as housing taxes and tax exemptions, will be satisfied. This is assuming, however, that the user has developed reading skills and some ability to make reasoned interpretations and draw conclusions. The facts are explained, but they do not guide one through the application process for something like an exemption. They inform the user who is entitled to an exemption and which government office is in charge of providing the service, but not the means for obtaining one.

Complex Cases

The Shil site makes no provision for dealing with complex cases, other than to provide extensive text files which address some of the complications involved in benefits applications. There are no interactive components for determining benefits or step-by-step guides for benefit determination. In the meantime, the best role that the web site can play vis-à-vis clients with complex cases is as a tool for promoting the use of the walk-in neighbourhood stations.

Updating

The new Shil web site went on-line shortly before the writing of this article. This has not been enough time to determine whether information on the site is updated or expanded. The earlier version went online in late 1995 and in its 19 months online, its content was not updated. Shil officials were aware of this oversight and stated that they have assigned a web-familiar staff member responsibility for updating content on the new site.

Conclusion

The Shil web site is a tool with a great deal of potential as both a resource for Shil volunteers and for members of the public who have requisite educational and cultural backgrounds and a good degree of self-motivation.

The web site, however, is really only suitable for people who already have an idea of what they are looking for. The organisation-based approach to organising the site lacks intuitiveness - users must really search to find some of the

information they need. Furthermore, information offered in explanatory form and not in guide form obliges the user to make reasoned assumptions based upon content and not follow a set of prescribed instructions.

These problems are not insurmountable. The technologies used in web design are extremely flexible and are designed specifically to facilitate updates and changes not only in site content but in structure, as well. Once Shil begins to receive feedback from its workers and from the public, adjustments may be made to fine-tune the site to people's needs.

References

Dawson P, Buckland S and Gilbert N (1987), *Expert Systems and the Public Provision of Welfare Benefit Advice*, paper presented to the British Sociological Association Annual Conference, University of Leeds, April 1987.

Dyson E, Gilder G, Keyworth G and Toffler A (1994), *Cyberspace and the American Dream: A Magna Carta for the Knowledge Age*, The Progress and Freedom Foundation, <http://www.townhall.com/pff/position.html>.

Epstein J (1984), *New Technology - New Entitlement: an Experiment in Public Access Computers to Assess Entitlement to Benefit*. Research Institute for Consumer Affairs, London.

European Commission (1996), *Building the European Information Society for Us All*, Interim Report, Directorate General V, Employment, Industrial Relations and Social Affairs, Brussels.

Information Society Forum (1996), Networks for People and their Communities: Making the Most of the Information Society in the European Union, *Cordis Focus*, Supplement No. 10, Luxembourg..

Information Society Trends (1997), June 1997 (Majordomo@www.ispo.cec.be)

Nowotny H (1990), *In Search of Usable Knowledge: Utilization Contexts and the Application of Knowledge*, Westview, Frankfurt am Main.

State of Israel (1997), *Citizen's Advice Bureaux* (Brochure), State of Israel, Jerusalem.

Steyaert J and Gould N (1997), *The Social Aspects of the Information Society: Transmogrifying Issues and Approaches to Social Policy*, paper presented at The Social Quality of Europe Conference, 8-10 June 1997, Amsterdam.

The making of the CD-ROM Dementia

Ronald de Klein

Introduction

In April 1997 the CD-ROM *Dementia* was introduced in Holland. In this report I would like to shed some light on the making of the CD-ROM and in particular discuss some problems and dilemmas with which we were confronted during the development process of interactive multimedia (IMM). The sharing of these issues is aimed at raising awareness for future developers. Sharing experiences at this stage is important as there are likely to be further developments of interactive multimedia in the future.

The CD-ROM Dementia

The CD-ROM is based on a video called *Never the same again* released in 1993/1994 by the Netherlands Institute of Care and Welfare (NIZW). The video was and is quite successful in the sense that it being used by a number of organisations and that the video has received awards on more than one occasion.

The video shows three families confronted with the early stages of Alzheimer. In each of the three families one pattern of behaviour typical to dementia is shown. These three are: suspicion, restlessness or unrest and dependency. Not only does the video tape show a clear picture of the issue, but it also shows just how relatives struggle to cope with the situation. The tape was made from the perspective of the relatives and can be used by social workers (counsellors) in information activities and in discussion groups for this target group.

What we have done with the CD-ROM is to take 25 minutes of the video, digitise it and cut it up in pieces. Around the video we built a shell with a lot of other material related to dementia. This way we tried to create a useful synthesis of both the video and additional information on a CD-ROM and a more appealing and efficiently delivered message.

Initial stages

The *Dementia* project started, as a lot of multi media projects do, with a global idea of what we would like to produce, as well as finding a developer and finding funds. Contrary to other forms of communication however, when developing IMM it is very difficult, even impossible, to change direction during the development process. So when working with video, for instance, it is necessary to be sure that you know exactly what you want because shooting video is very expensive and so also is digitising high quality video (up to \$700 per minute of video). If you plan to work with a database it is useful to know that it usually takes many hours of programming to make a customised database. This is also the case with a database made for office use but there the tools used are more capable of adaptation than widely used IMM tools like Authorware and Macromedia. Which of course are not designed to be database design tools.

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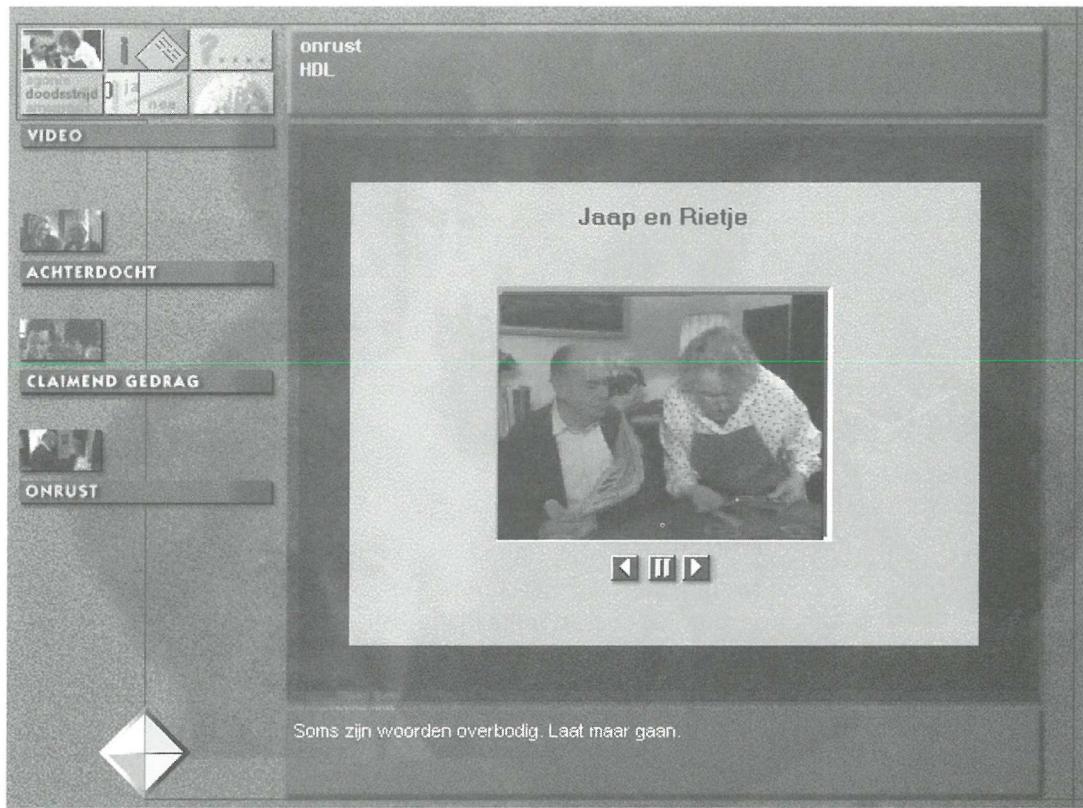


Figure 1 Sample screen showing video

So the importance of planning this first stage is essential and very often hugely underestimated. It was true for the 'Dementia' project and for others as well. The problem with multi media is that content or the message is interrelated to the target group, and both of them are interrelated to the technical input. We know a lot about the first and very little about the latter.

A goal for *Dementia* was that we wanted both the NIZW as well as ourselves to gain experience in developing multi media. We felt (and heard from others) that developing IMM is fundamentally different from linear media which we normally produce: books, readers, video's and even training.

That developing IMM indeed is different from linear media is the major lesson learned from *Dementia*. The first advice I would give to anyone planning to make a IMM product is: make sure you know your software. It is important to understand the technical issues (or to have a specialist). You should know what a developer is talking about when he or she is explaining to you how they want to make your product. Any investment you might make in this area will be paid back during the project.

The following examples help to illustrate this point. Working with video we had several options, and thus choices to make on the technical side. The carrier or platform was one. Do you want to make a CD-ROM, cd-i, DVD (digital video disc or digital versatile disk), computerbased application or even an Internet based product? The product we had in mind would also contain a lot of data e.g. information about drugs and medical

(neurological) information, addresses and a short description of homecare organisations, nursing homes and residential homes, literature on Alzheimer, law and regulations, provisions and allowances. The developers we had in mind as well as our own knowledge of these different media suggested that our demands could be met with each of the media (CD-ROM, cd-i, computer). But with big differences. Some issues were:

- video works very well on cd-i and DVD, less so on a computer and CD-ROM, and worse still on the Internet. But if, like in the example of *Dementia*, you also want to include a lot of data in your product CD-ROM or a computerbased application are probably best.
- what is the installed base of the medium? In other words what is the penetration of the platform within your target group? Two issues arose: the first is that in many cases IMM developers don't know the market of healthcare and in particular social work. Be careful with trusting judgements from them about, say, the installed base of CD-ROMs in your sector. Second: it is not axiomatic that when the installed base of a platform in the sector is low that this should automatically lead to adoption of another platform. Practically no one owns a DVD player but if I wanted to produce a product similar but much larger in bits and bytes to *Dementia* I might choose DVD. This is because the production time is about a year (in which you expect the installed base to grow significantly), there is no other sensible way to produce what you want other than reducing the size and thereby the

quality of the program. Also, many IMM titles, are produced to last a couple of years (given some updates). If you expect, as I do, that in 2 years the market will be flooded with DVD players, than the choice for DVD might be the right one.

- The developer: two things stand out in producing IMM: the interface and the technical expertise. In Holland, at least, developers are good in either one of them but very rarely in both. For *Dementia* we felt that the interface, this is the way the product presents itself to the user, was very important as our users would typically be people with little or no computer experience.

A striking example of the importance of some IT knowledge can be given with the video we digitised for the CD-ROM. The developer chose to digitise it according to the MPEG standard. This was done because it would provide high quality digitised video which can be shown larger and with more detail on screen. Now normally one would take this for granted but later I found that this would mean that a user would need an MPEG hardware module or a very modern computer to be able to see the video at all from CD-ROM. We therefore decided that we would convert the video (once again) to a more common type of digital video called AVI. How the video is presented can be seen in Figure 1.

If we had no knowledge at all of what the developer was doing, we would have produced a product which could have been used by almost no one. So, we paid 12,000 guilders (\pm \$6,000) for conversion to AVI.

Another example is the way in which the user can find one of the 1500 addresses on the CD-ROM. At first there was just one choice of selection; by keyword. We suggested making the addresses searchable on ZIP-code as well. Initially they developed a screen where postal codes were divided in subcategories (1000-2000, 2001-3000 etc.). Later we also required a form, despite objections from the developers, to type in a ZIP-code and to display related addresses.

Interactivity

Another obstacle for social work professionals lies in the design of interactivity. An often misused and overused word but still an important concept. In fact interactivity is one of the reasons why multimedia can be such a strong and powerful medium. Another example from *Dementia* to exemplify what I mean.

In the case of *Dementia* we have 6 types of information: video, background information on Alzheimer, 120 frequently asked questions (FAQ's), a test, a couple of databases (medicine, addresses, social and legal information, information on literature, films and videos), neurological atlas and information. Some of them derived from already existing products like the addresses and social/legal information from a NIZW pocketbook called *The Almanac for advice and information on elderly*.

Putting them on the CD-ROM as single and detached products is one option but then we would not be using the capability of a CD-ROM to interrelate information.

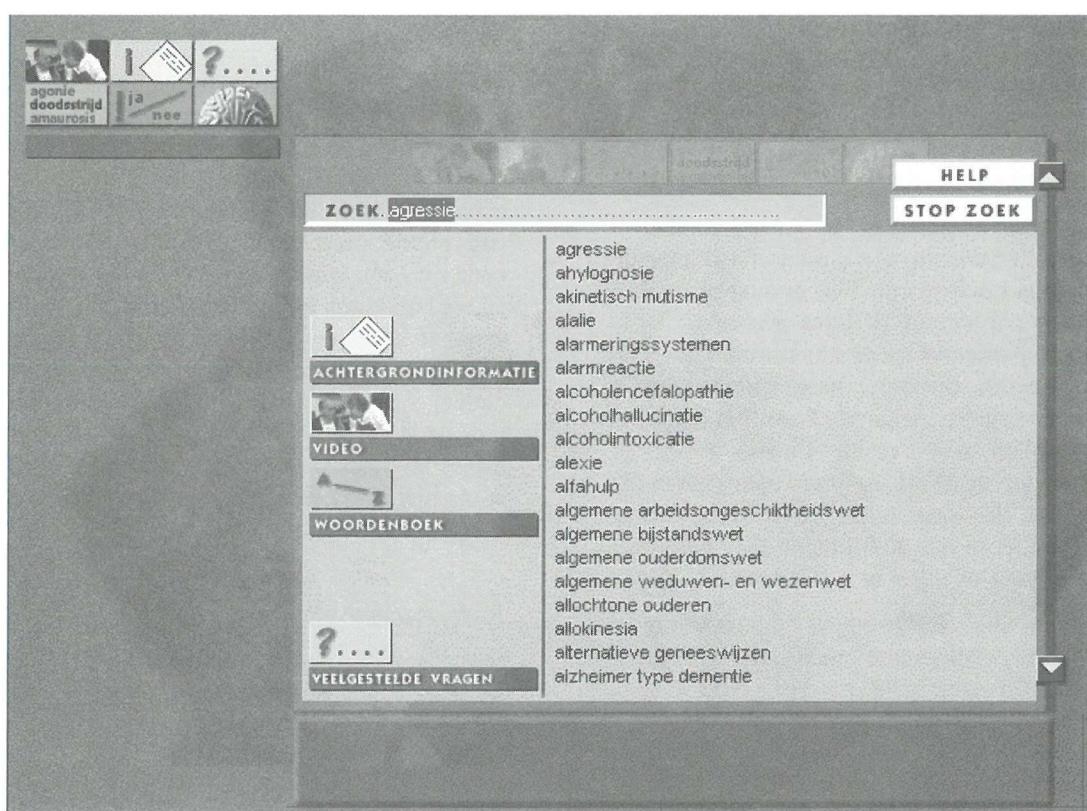


Figure 2. Screen showing use of keywords

Therefore we decided to at least interrelate the video, with the background material, with the FAQ's and with a part of the databases. We use keywords to achieve this interactivity as well as techniques the authoring platform (Authorware) offers. The question you have to answer is: where do you want the user to go to next? And where not?

In *Dementia* interactivity is designed as follows: the user is invited to first work with the video. You select one of the three families and start watching the video. When the video is paused keywords appear in the top left of the screen.

In the bottom part brief advice is given on how to deal with behaviour just shown in the particular case. When selecting (in this example) the keyword agressie (aggression) the program takes the user to the text about aggression in the background material. From there they can go to other subjects concerning (problematic) behaviour of the dementia patient. In *Dementia* two others forms of interactivity are designed. Firstly there are other ways for the user to reach the same 'aggression text', the easiest being the search function. We wanted the user to have a maximum chance of finding things on the CD-ROM with a minimum of effort. The vast amount of information makes this paramount. The subject of aggression can be found on other parts of the CD-ROM as well. In the FAQ there are questions and answers on how to cope with aggression, the dictionary has a short explanation of the phrase. When using the search function on 'agression' the result looks like Figure 2.

Part of the information is hyperlinked, but this is supplemented by the search function. The result is that *Dementia* has a complex and obscure program structure as would any good IMM program. This requires high quality programming.

Planning and production

Some remarks on project planning. In our project there was a delay of about 5 months (on a total of 15) a result of bad planning and bad judgement. The amount of work we had to put into this particular CD-ROM was very underestimated. In particular the production of the background information was much more labour-intensive than the team expected. There simply wasn't enough time planned. This problem arose a result of a lack of experience in developing IMM. In total I spent about 500 hours on *Dementia*. The three colleagues I worked with used a similar number of hours. Although they planned something in the order of a 100 to a 150 hours.

Additionally in total we spent as much time on testing prototypes as on the development process itself. Contrary to analogue media this is quite normal. It is nearly impossible and not desirable to completely develop a

product from scratch to a near final product. It has to be an iterative process. You can have a book in your head, write it in accordance with your thoughts and communicate about it with peers. Doing the same with images, interaction, and an interface is nearly impossible. A designer has to actually make a screen or a button to communicate it to others.

Lastly; there are different roles and fields of expertise involved: technical, interface and interaction designers, text authors, scenario or storyboard designers, video experts, interactivity experts, database programmers. We were lucky in that our production team combined a lot of these qualities. But alas this is not always the case. Usually it is the larger multi media companies that do have different experts and so combine different fields of expertise. Before selecting a company I would also take a close look at the titles they already produced.

Conclusion

Since the official release date May 1997 we sold about 200 CD-ROMs without a large marketing campaign. I expect to have to have sold the first 400 CD-ROMs we produced within the next 6 months. The first reactions from users are positive. One case manager who always used the video has switched to the CD-ROM. She, as most who see the program for the first time, indicates that she in particular likes the overall design of the program, the usability and the fact that people can use it on their own. My feeling is that once people start to used to the idea that CD-ROM is a useful medium, and once more titles are released, the role of new media will increase over the next couple of years.

The production of *Dementia* taught us a lot about the requirements necessary for producing Interactive Multi Media. It is a different way of working but it is great fun and it is very likely that we, social work and healthcare experts, will be developing a lot more CD-ROMs, DVDs and Internet productions in the future. Knowledge of what makes a good, attractive CD-ROM is essential. My advice: take a good look around, collect Multi Media titles and examine how they work and how they are designed. Start playing with the computer and multi media to get some understanding of what is possible. Arm yourself with knowledge of Multi Media and Information Technology. You'll be much better equipped to make critical decisions about platforms, techniques and producers. And save time and money in the process.

References

NIZW (1997), *The Almanac for advice and information on elderly*. NIZW: Utrecht

Reviews

Keisha - A Case Simulation in Failure to Thrive.

reviewed by Tony Pipe and Geraldine Earley

Further information about Keisha may be obtained from Dick Schoech, School of Social Work, University of Texas at Arlington, Box 19129, Arlington, Texas, 76019-0129 USA

Description of the software

Keisha is an interactive, multimedia, computer-based simulation developed for the Children's Protective Services Training Institute at the University of Texas at Austin. It was developed by a team consisting of Dick Schoech; Ph.D., project co-ordinator, Monica Williams, MSSW, Simulation Developer; Ann Wilder, Resource Base Developer; and Rosemary Satterwhite, MSSW, Subject Matter Expert. Although I have experience of both computer program development and social work, Child Protection is not an area of special expertise and I was therefore assisted in this review by Geraldine Earley. She has extensive experience with children received into residential care and has also just completed her Masters degree in Social Work thus being able to give perspective as a recent student.

The very first comment I would like to make about Keisha is that it is an excellent piece of work that clearly illustrates the potential for computer based programs to aid the process of learning. The process of assessing Keisha was facilitated by the developers stating very clearly what the objectives of their project. These were:

- 1) To allow users to experience the complexities of working a real Failure To Thrive (FTT) case.
- 2) To allow users to make mistakes while working a FTT case without harming a client or themselves.
- 3) To allow users to discover and apply knowledge required to work a FTT case.
- 4) To allow users to construct a case record from the knowledge base discovered while working a FTT case
- 5) To provide constant monitoring and feedback.
- 6) To reinforce good judgement in the order of events when working an FTT case.
- 7) To improve judgement in working a FTT case by comparing user judgement to expert judgement.

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Having worked through the program a number of times I feel that Keisha manages to fulfil all its objectives. The program consists of four modules which take approximately half an hour each to work through. The modules are 1) the referral, 2) the home visit, 3) casework activity and 4) forms and feedback. The modules are worked through by a process of 'discovery', that is, a situation is set by the computer and the individual investigates the material provided to formulate a judgement as to

how to proceed. At all times assistance is available, this comes in a variety of forms including a filing cabinet full of appropriate information, a supervisor and expert opinion. This process does allow an experience of FTT work that is safe, structured and fosters the use of 'best practice' throughout. The process of working through the simulation promotes the acquisition of a sound knowledge base, the ability to be aware of correct procedures and policies and the development of improved judgement.

The program arrived on five floppy disks accompanied by a short manual. The program was easy to install and worked first time. The only suggestion at this stage would be to include an uninstall facility which worked from a single mouse click rather than the process described in the manual.

The screens were very clear, pleasingly laid out and the instructions were accurate and easy to follow. The program features 'Roll Over' techniques which allow the user to move the mouse around the screens and activate various features by passing over 'Hot Spots'. There is extensive use of graphics, which are excellent, and at certain stages photographic images can be viewed. The use of these images is integral to the program and enhances the learning process and, as such, careful attention needs to be paid to ensure that they are as clear and detailed as possible. My personal opinion is that one of the most impressive features of the whole program is the quality and accessibility of the information available from the 'electronic' filing cabinet. If the techniques used in Keisha were to be adapted to constructing a practice tool as opposed to a teaching tool, the availability of consistently high quality, accurate information in an easily retrievable form should lead to an improvement in the quality of service delivered. The program also contains a number of light-hearted ways of making important points; the user can

choose to take a coffee break when necessary to relieve what is, even in simulation, a stressful situation; a spinning top is provided with the same aim and the user can choose between an Owl and a Shark to represent their supervisor. Attention to issues of race and gender are addressed by allowing the user to choose an appropriate image to represent themselves but this is slightly tarnished by the fact that virtually all workers are represented as being female until one gets to the exalted position of Specialist hospital doctor (and should the doctor be portrayed smoking?).

When working through the simulation the intention is that material should be studied, information obtained, judgements made and that these should then be checked against the Expert Opinion provided by the program. It is, however, possible to go straight to the Expert Opinion without the preceding steps, but even this method of progression provides a powerful learning experience. All four modules provide excellent material, taxing exercises and stimulating interactions. There are places in the simulations where it would have been helpful to be able to repeat certain tasks (i.e. making a second call to the Hospital Social Worker) but such detail did not detract from the overall impression of a very good program. Some aspects are very clearly set specifically for the Texas Child Protection Service but I understand that a degree of specific 'tailoring' can be done, particularly in reference to the forms used. There is such a wealth of excellent information contained within the program that it may be a useful addition to add the facility to print out sections of it.

Overall, I was very impressed with this program. It took some four thousand hours to produce and this is reflected in the general quality, attention to detail and depth of available information. Geraldine Earley and myself would both commend its use as a powerful learning aid.

News from NISW

The latest briefing of the National Institute for Social Work (NISW),

The Voluntary Sector and the Internet

is now available, free of charge, on the website of NISW, [<http://www.nisw.org.uk>] look for **NISW briefings**, and by email via their listserv. To obtain a copy by email, send a message to listserv@nisw.org.uk with the first two lines of your message reading

get niswb23
end

Passada Software

reviewed by Stan Cook

Passada Software consists of a suite of programs which may be purchased as a package or individually. For prices and demonstration disk contact the author Dr David Colombi, School House, Angmering, West Sussex BN16 4JS. Tel: +44 (0) 1903 773238 email: passada@arunet.co.uk WWW: <http://www.arunet.co.uk/passada>

Probation services in England and Wales now have a national strategy for information systems. At the heart of this is the belief that access to accurate, timely and relevant information is essential to maintain the health of any organisation. It is recognised that the availability of this high quality output should not be the exclusive domain of strategic managers. It underlines that practice staff have equally valid requirements of high quality information albeit from different sources and for different reasons.

The first priority of the strategy was to develop a case management tool. CRAMS - the Case Record Administration System is the result. It is an operational tool to assist operational staff to manage their caseload from which management and strategic information can be extracted. An adjunct to this is the need to provide software which can assist them in their day to day contact with service users - in the case of the probation service this, of course, means offenders. It is within this context that this suite of programmes from PASSADA Software falls.

PASSADA is a suite of Windows programs designed to be accessed directly by service users with or without assistance from professional staff. There are six separate modules which comprise the PASSADA family. These cover the range of problems which are most likely to be encountered by probation service users; budgeting, alcohol, driving, substance misuse, personal relationships and crisis management. All give a good range of information in a non patronising, non preaching way. They encourage rather than cajole. The programs are visually attractive and try to take the sting out of complex issues.

For me **Budgets** is the flagship program. The user can enter their budget information and experiment with making adjustments to expenditure and income. The information is detailed without being turgid. The graphics help to simplify and the use of a set of scales which can be re-set as decisions on changing spending patterns are made is an excellent visual aid. Surely offsetting the sense of despair which many feel when confronted by the complexities of their personal finances!

The **Alcohol** program has a comfortable mix of information and tasks to involve the user. A clear picture of alcohol use emerges and the program offers information on sources of help to manage the problem. I suspect that the program will be particularly useful to those people whose use of alcohol has not become well entrenched. It is highly likely that a large percentage of offenders with an alcohol abuse problem will have been through several similar - or indeed more complex and demanding - programs on their journey through the criminal justice system.

The **Driving** module scores highly on information about the law and other basic driving information. However the quiz is rather superficial and easy to manipulate. It is not strong on the outcome of bad, dangerous or illegal driving. Information on the social consequences of such acts would give a more balanced picture of these outcomes. Incidentally the detailed information on the law shows how comparatively lightly the law deals with people who use a serious weapon like a car in dangerous ways!

The strong part of the **Drugs** module is the 'Sources of Help' section. It is wide-ranging and gives both local and national contact points. This apart I doubt whether anyone other than a novice user would glean much from it. For that reason its target audience would be the younger end of the at risk group.

I was pleased to see that the **A-Z of Love and Sex** module attempts to head off voyeurs. By clearly articulating the value judgements of - and by implication the justification for - the module it effectively defuses the user looking for cheap thrills

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and giggles. In fact I would guess that it contains more valuable information than any other since it provides practical, objective information in an area in which most users see themselves as expert and needing little, if any, instruction.

Crisis is by far the most complex but most rewarding of the modules. Whilst some of the options seemed rather facetious I was impressed that the most likely outcome was displayed. This is a good counterbalance to the tendency to try and second guess. There is something chilling to see what the likely outcome will be, especially if it is at variance with your chosen, often idealised solution. I can see that it is the module most likely to lead on to a wider range of options to problem-solve, for example role play.

To be acceptable this kind of software needs to earn the approval of three groups; service managers who will approve the use; operational/practice staff who need to incorporate into their work patterns, and service users to whom it will be available.

For **managers** the software must be cost effective, able to run on the provided infrastructure, and contribute to the effective operation of the key business tasks of the organisation. For example a tool which did not contribute towards risk assessment and supervision planning would be unlikely to meet their aspirations.

For **practitioners** the software must be easy to use, relevant to the task, and readily available. Finally It must give something back. Staff often justifiably criticise service management for providing systems which are long winded, complex, and which are information hungry without providing any usable information. If there is no payback there is generally little commitment.

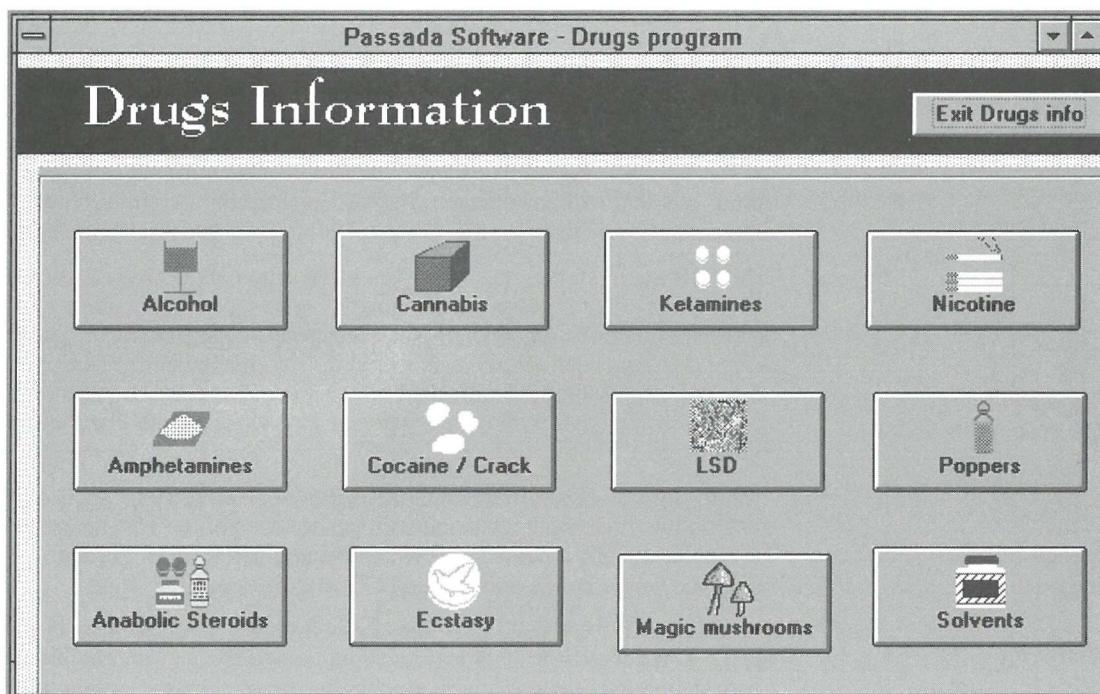
For **service users** any software must be easy to use, avoid being patronising and have a purpose. The technology must enhance the message, not mask it. The program must provide options and explanations; it must offer advice not instructions.

Passada

This PASSADA suite can satisfy these three sets of different but overlapping criteria. It is realistically priced at £45 per module and will run on the provided infrastructure. It can contribute to supervision planning and risk assessment in the broadest sense. It is easy to use, informative without being censorious, and rich with information and is designed to produce something which is a starting point for future work. Its strengths are that it demonstrates the potential of service-user software and introduces practice staff to the constructive use of computer programs in their everyday work environment. It can complement the operational tools to support practice which are intended to be introduced as part of the National Probation Service Information Systems Strategy (NPSISS). Its limitation for probation services is that overall it is more relevant to a younger population which is not necessarily the main target group for their staff. I would suggest that the relevant age range for several of the modules is 14 - 19 years of age. Secondly the depth of content of some of the modules is limited. There are products on the market which enhance these packages; I am thinking of some of the output of Fitzwilliam Software¹ which develop and enhance this work.

There is a need to engage practice staff with the use of computer related technology in their everyday work. In that regard the PASSADA family is successful. They are a cost effective way of introducing practice staff to the value of software in their dealings with offenders. The critical word is introduction. It is probably fair to describe them as entry level; they open the door to a whole range of products which can enhance service delivery for both practitioners and service users alike.

¹ Fitzwilliam Software is produced by Tony Pipe 34 Woodlands Road, Heaton Mersey, Stockport, Cheshire SK4 3AF There are 5 modules.





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Information Technologies for Social Work Education
The University of South Carolina
College of Social Work
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August 20-23, 1998

This will be a second improved edition of the conference held in September 1997. The organisers will incorporate many of the helpful suggestions made by 1997 participants and presenters into their planning. Among these will be more emphasis on laboratory and hands-on learning opportunities.

Call for papers will be disseminated shortly and preliminary registration information should be available before the end of 1997.

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First Announcement
HUSITA 5
Budapest, 29 August-1 September 1999
Human Service Information Technology Applications
International Conference and Exhibition
and
On-line NetConference
SOCIAL SERVICES IN THE INFORMATION SOCIETY: CLOSING THE GAP

The aim of HUSITA:

Human Service Information Technology Applications (HUSITA) is the international conference that links the academicians, educators, practitioners and policy makers sharing mutual interest in the application of information and information technology in the human services. The HUSITA Foundation was formed in order to guarantee the continuity of HUSITA conferences as well as the quality of these.

HUSITA 5

This international conference brings together scholars, practitioners and policy makers to exchange information and ideas to share experiences on how to help the information society increase the quality of social services world-wide. The historical and social changes that have taken place in the world have widened the gap between East and West, North and South as well as between the rich and the poor, the educated and the uneducated. HUSITA 5, which will take place in a country that is undergoing social and historical changes, will aim at investigating the potentials of closing the gap.

Conference Chair: Dr. András Jávor
Former Secretary of State, Ministry of Social Welfare

International Programme Committee:
Jan Steyaert (Chair), Gail Auslander, Zsuzsa Ferge, Bryan Glastonbury, Dick Schoech.

The host country and city

Hungary is ready to provide a welcome to participants arriving from European countries and other parts of the world. Budapest in the heart of Europe provides all the high quality facilities required by our guests. The city can be easily reached by air or surface travel from all parts of the world. We hope that our conference guests will not only widen their experiences at the conference but enjoy the hospitality of this wonderful country as well.

Conference Venue:

HUSITA 5 will be held at the Medical University of Budapest. Being one of the best known universities of Budapest, the Medical University welcomes participants coming from all over the world and provides excellent facilities for the event. The venue is easily accessible from the centre of the town and is also 15 minutes travel by public transport to a range of conference hotels.

Hosting Organisations:

John von Neumann Computer Society is the national computer society of Hungary.

Conference Tours Ltd. is the official congress organiser of Neumann Society and the Federation of Technical and Scientific Societies.

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