

# INFORMATION SEEKING STRATEGIES USED BY OLDER PEOPLE

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## ABSTRACT

This paper concerns a pilot study [2] which considers the increasing levels of public information that is provided on the web and reflects on some of the implications this has for our ageing population. The issue is particularly pertinent as governments are increasingly adopting technology for such use. The study investigates the attitudes of older people towards on line information searching and their personal strategies for information seeking.

## Keywords

Search strategies, elderly, public information, cognition.

## 1. INTRODUCTION

It is increasingly important for the general population to access information from the web. Government is being encouraged to use the web as a central information source with millions of pages being available online. However these sources are little used. Pinder[5] argues that this is due to the poor usability and poor accessibility of the information.

We start from the premise that improvements in information and communication technologies have the potential to give extra-added benefit to an increasingly aging western world population. In order to facilitate this we are exploring a Pro-active design philosophy which stresses the need for ensuring the broadest possible end-user population is incorporated from the outset[1]. This pilot study has been exploring the potential benefit for the elderly in developing systems that work with their consolidated strategies for problem solving. We are also aiming to secure a rather positive view of ageing which recognizes that many elderly people retain, enjoy and continue to use their cognitive abilities deep into old age rather than pursue a line of enquiry which assumes a rapidly increasing passivity in the older population.

Rabbit[6] stresses that at well-practiced skills, whilst competence does drop with age, people can still perform at levels much higher than unpracticed young individuals. His model of the decline in cognitive ability is that the incidence of major cognitive impairment increases with age, but it does not affect everyone equally.

Furthermore some cognitive skills are effected less severely than others. These "Crystallized" mental abilities relate to skills that have been practiced or gradually acquired over a lifetime. This contrasts with "fluid" mental abilities that depend on information processing speed or on the learning

of new problem solving skills which are more likely to degrade thus reducing the capacity to solve novel problems. However, Rabbitt also suggests that crystallized skills that depend on fluid skills are not severely affected by degradation. Our stance here is that we should try and investigate the use of these skills in relation to information searching in order to further consider how such skills can be utilized in web based searching because some people may be extremely effective at finding information in more traditional ways but face difficulties accessing information on web sites – in particular e-Government information.

## 2. METHODOLOGY

A qualitative research methodology was followed with a scenario-based approach being adopted 5. Participants were asked to think-aloud performing a web-based e-government information-seeking task. They were asked to find information and an application form for a housing benefit claim. Thereafter they could look for other information of interest. The observer took written notes of the major actions performed and statements made. No tape recording was done to maintain the relaxed nature of the observations. Follow-up questions explored how people would normally find information, their feelings about using a computer to do this, their criteria for choosing a strategy and their feelings about participating in the study. Participants were aged between 62-82. Where possible the observations were carried out in the person's own home using their computer, or in other cases at the home of someone they knew well (possibly the researcher). Lave 5 highlights the importance of natural settings to investigate cognitive phenomena. The setting affects the cognitive processes involved. Indeed, one participant left the computer to find other personal resources.

## 3. BRIEF SUMMARY OF FINDINGS

Subjects had strong strategies for information seeking and favoured their use. Strategies included using the telephone to ask someone to send a housing benefit form, and physically going and collecting a form from the council offices. Anecdotes concerning previous searches for information, for instance for family tree records and planning application forms also revealed a preference for physically going and getting hold of records and forms.

*"The difference is I actually went there. I rang up and arranged to go and sit there and I went to [...] library. I went to the actual records office. I*

*rang that office [looking at details online]. You book a seat. I'd do the same again as I actually got hold of the records. They're probably on here [the website]. I wouldn't know. I go to the cabinets and find the records myself."*

If proactive design is an aim then ways need to be found to support the use of existing search strategies and skills. This may mean supporting use of combinations of traditional information seeking approaches with web based ones, rather than seeing the latter as a replacement for the former. Novel interface design based on traditional search strategies may help. More research is needed in this area. The use of the telephone directory to locate a contact point for the appropriate council offices was far quicker for all but one of the participants and whilst this may have led to a long period before the form was actually located, it suggests that a look-up facility for web-addresses based on a telephone directory structure may be beneficial.

Whilst all the participants were keen to learn about the computer they saw little advantage in using the internet for their searches, although one person noted that if they were physically incapacitated the internet would be useful.

The obvious measure of information seeking effectiveness is the time taken to achieve the task and this was generally perceived as slow. However, speed was not necessarily the most important measure of perceived advantage. The participant's strategies for effective information searching were based on various criteria for positive satisfaction. Speed of access was often surpassed by other concepts of value as getting out, socialising, and actually talking to humans. One subject favoured using the library to look up information. They would wait several days before visiting town. However, the option of using computers in public places was treated with some ambivalence due to a concern for making fools of themselves.

It was notable that all subjects had a vague understanding that you could search on some criteria. However those lacking any computer experience, were not aware of the existence of search engines, how to locate them and the importance of at least an alias for a URL. Beyond these conceptual entities are serious problems with navigation. Scrolling and mouse movements in general carry physical barriers. Such difficulties required assistance from the

researchers. Overall, if we are to provide information to elderly, novice computer users we would need to deal with the physical components and streamline the whole navigational process. The whole area of touch screen and clear navigational components requires serious research.

## 4.CONCLUSIONS

Suggestions that these problems are only with the current generation seem misguided. Several of the subjects had used computers as part of their jobs (eg BBC micros), including one who taught their use. The technologies had moved on, however, so that information searching was still problematic. The current generation of workers may be proficient with Google, but that may be of little use after retirement when completely new information technologies and interfaces have replaced it. Future work should consider the incorporation of well used search strategies into interface design in order to reduce the burden on fluid mental resources that may be heavily overburdened in a spiral of technological advancement.

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