

Memories for Life Network Colloquium, Tue 12th December, 2006

Call for Posters

Call

Submissions are solicited for posters to be presented at the Memories for Life Network Colloquium, Tue, 12th December, 2006, at the British Library, London.

The Memories for Life Network (M4L – <http://www.memoriesforlife.org>) is a grouping of scientists, funded by the Engineering and Physical Sciences Research Council, to explore the relationship between the technology and science of memory. More details of the M4L research mission are given below.

The colloquium will consist of a series of keynotes and panels given by distinguished speakers, before an audience drawn from a wide range of backgrounds. The lunch interval will be given over to poster presentations.

Posters need to present your work in an accessible way to an audience with a general interest in memory. PhD students are particularly encouraged to submit ideas.

There will also be a Memories for Life workshop on Monday, 11th Dec 2006, which you are welcome to attend. For more information on the workshop and registration for the colloquium, contact info@memoriesforlife.org.

Details

Posters to be sent to posters@memoriesforlife.org by Mon 23rd October, 2006. PDF files are preferred, but we will accept other formats from people who have difficulty creating PDF files. The submission must make clear how the poster relates to the priorities of M4L.

Proposals from any relevant discipline are welcomed, including:

- Cognitive neuroscience
- Cognitive psychology
- Medicine
- Information science
- Computer Science
- Philosophy
- Law
- Sociology
- Ethnography
- History

Examples of topics that submissions may wish to explore include, but are not limited to:

- Descriptions of existing or potential systems or applications that use personal digital memories. What are the main challenges that the system deals with, and what benefits does it provide to users?
- Descriptions of resources (such as corpora and analysis tools) which can be used by Memories for Life researchers.
- Computer science research issues, including how memories are stored, organised, searched, integrated, interpreted, interacted with, and protected (security). Also the impact of new technologies, such as the semantic web.
- Cognitive science research issues, including the requirements and prospects of memory prostheses, and analysis of similarities and differences between human memory systems and computer digital memories. For example, humans can forget memories, is there an analogous forgetting in digital memories?
- Social issues research issues, including the relationship between the memory of an individual and the collective memory of his/her social groups, and public policy and legal issues (who has rights to access and modify digital memories). Also, how does the identity (of an individual or collective) depend on memory?

Notification of acceptance will be sent out by Fri 10th Nov.

Memories for Life

Rapid progress in computing technology means that it is now possible to store immense amount of personal data on computers. This data could include many kinds of information, ranging from email messages to records of web pages browsed to images and videos captured by digital cameras to medical sensor data. Collectively, this data could become an important aspect of the “memory” of individual users, especially if it is accumulated over a lifetime. The goal of Memories for Life is develop technology which helps people benefit from their digital memories. This could range from improved search technology, to memory aids for the cognitively impaired, to artificial intelligence systems which give medical advice that is based on analysing a person’s digital memories. Memories for Life technology must be based on a deep understanding of how digital and biological memories should interact and support each other, and also on how digital memories will impact society as a whole.

From a computer science perspective, Memories for Life presents numerous research challenges. To take just a few examples, how can we store such diverse data robustly for a period of decades, in a manner which easily accommodates new hardware, software, and types of data? How can we protect people’s privacy, especially when one person’s digital memories contain information about someone else? How can we analyse and interpret digital memories, in order to build up higher-level models of what the memories mean (and of the person who recorded these memories)? How can we allow a very diverse range of users to easily interact with their memories?

From a cognitive science perspective, it has long been recognised that the interaction between technology and human society can have far-reaching psychological effects. Thinkers as early as Socrates and Plato focused on memory as one faculty of mind for which technologies of storage could change individuals’ psychological makeup, by, so to speak, externalising or ‘outsourcing’ mental function. In recent years, the

development of such commonplace innovations as email, ubiquitous computing (including the internet), virtual reality and advanced prosthetics have brought home the requirement for an increase in the scientific and social understanding of cognitive function, in order to design and evaluate appropriate technological devices.

From social science and information science perspectives, society must decide who has the right to access digital memories, and also develop mechanisms to enforce this policy. What rights do corporations, repositories, friends and relatives, the legal system, police, intelligence agencies, and so forth have to an individual's digital memories? What abuses are possible, and what safeguards need to be put into place to stop these abuses?

Interdisciplinarity is crucial in Memories for Life. The issues of storage, retrieval and forgetting have analogies across a range of sciences, and yet these analogies are by no means fully understood. For instance, in cognitive psychology, the problem of understanding selective attention – the processing by which an abundance of sensory information impinging upon us is filtered to enable a manageable flow of information for the brain to handle has been studied for many years. But how many of the insights that have come from this work have had an impact on the design of operating systems used in desktop PCs?

At a minimum, the M4L research programme will require input from mechanistic studies of the brain (neuroscience), the human mind (cognitive psychology), the structures and limitations imposed by human society and human social behaviour (sociology), information technology (computer science) and management (knowledge management and information science). Of course, this is not an exhaustive list of relevant disciplines of those who can contribute. The Memories for Life network has been set up to foster links between varying disciplines, to address this grand challenge for 21st century technology and science.