





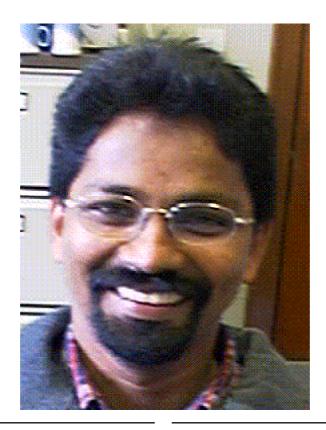
### British Computer Society Information Retrieval Specialist Group

Volume 8

Winter1998

ISSN 0950-4974

## What has Joemon got to smile about?



Apart from the fact that he has just won the InformeR prize for the best student paper in European information retrieval. What a smart cookie. Joemon graduated from the Robert Gordon University and is currently working for the Faraday institute in Glasgow, looking at 3D image retrieval.

You will have a chance to see him in action at the 1999 Colloquium where he will give a presentation of his prize-winning entry. And to whet your appetite, here is the abstract of his pape, 'Spatial querying for image retrieval: a user-oriented evaluation'.

Abstract: Epic is an image retrieval system that implements a novel spatial-querying mechanism. A

user-centred, task-oriented, comparative evaluation of Epic was undertaken in which two versions of the system one set up to enable spatial queries only, the other allowing textual queries only were compared. Use was made of the two systems by design professionals in simulated work task situations, and quantitative and qualitative data collected as indicators of the levels of users' satisfaction. Results demonstrated that users often had a 'mental image' of a potentially satisfying picture in mind, that they were happy to express this need in visual terms, and that in doing so they preferred to have access to Epic's spatial-querying facility. Success in obtaining statistically significant results appears to support validation of the novel methodological framework adopted.

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# Who's who

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### contd from column 3

digital library systems, metadata standard, and multilingual information access. Each of these topics is organised in a working group. The working groups are expected to present their results in the next ECDL conference which will be held in Paris.

Mirna Adriani - University of Glasgow

### Second European Conference on Digital Library (ECDL'98)

The second European Conference on Digital Library (ECDL'98)was held in Crete, Greece, on 21-23 September 1998. The conference attracted around 450 participants from a wide variety of background in the academia and the industries, as it covered not only scientific research but also development of products and systems. There were 35 full papers presented in the conference, dealing with a broad subject area related to digital library, including computer science (distributed systems architecture, information retrieval, human computer interaction, natural language processing, language-specific encoding), library studies (metadata standard, categorisation, electronic library systems), and laws (copy rights and property rights issues). Also in the conference there were sessions discussing case studies, in particular, on the application of digital library technology in health care and electronic commerce.

The conference was held in conjunction with the 1998 DELOS workshop on Electronic Commerce which preceeded the conference. The workshop covered aspects of electronic commerce such as system security, the social impact on employment, and legality issues. Some of these issues were also discussed in the conference. The conference is part of an international project, the Digital Libraries Project, funded by EU & NSF to collaborate in five research and development topic areas: international property rights and economic issues, resource indexing and discovery mechanisms, interoperability between

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# Robert R. Korfhage

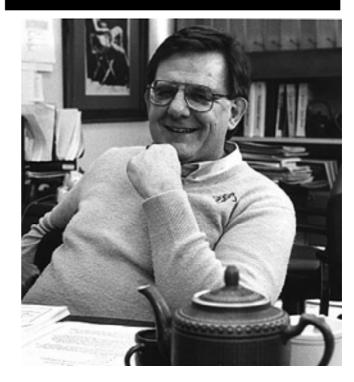
Dr. Robert R. Korfhage, School of Information Sciences Professor Emeritus, died at his home in Squirrel Hill on November 20, 1998. He retired from the University of Pittsburgh in May, 1998 after a long and distinguished research career in the area of Information Retrieval and related topics. Holding bachelors, masters, and PhD degrees in mathematics from the University of Michigan, he has spent more than 35 years on university faculties including Purdue (1962-70),Southern Methodist University (1970-87), and Pitt (1987-98).

While serving on those faculties he also served as a visiting professor at the Los Alamos Scientific Laboratory and the Universities of Western Ontario, Alberta, and Texas at Dallas and Williams College. Selected as a Fulbright-Hays Lecturer twice, Dr. Korfhage also traveled professionally in Europe, Morocco, Japan, and China. His connections with international scholars developed into a fruitful relationship for the School of Information Sciences and Molde College and Hedmark College in Norway. The agreement has enabled the universities to exchange faculty and students on a regular basis.

Among his fields of interest were: information storage and retrieval, full text and image databases, natural language systems, visual languages, human-computer interfaces, artificial intelligence, data structures, chromatic polynomials, hypergraphs, information networks, sparse matrices, and computer-assisted instruction. His most recent research activities were supported by the Information, Robotics, and Intelligent Systems section of the National Science Foundation.

Dr. Korhage authored 10 books, including his most recent publication Information Storage and Retrieval which received both the prestigious 1997 Association of American

Publishers award for outstanding professional, reference or scholarly textbooks in the category f 0 r outstanding computer science textbooks and 1998 the American Society of Information Science award for the best information science book. He authored or



co-authored more than 70 published papers. Through his research, he has helped to clarify fundamental issues surrounding the nature of document spaces and user information needs.

He held memberships, and was active in Sigma Xi, Upsilon Pi Epsilon, the Association for Computing Machinery, the IEEE Computer Society, and the American Society for Information Science, and he was a consultant to more than a dozen organizations.

The academic and professional career of Bob Korfhage is one that few can emulate. His research, scholarship, and devotion to students were inimitable. SIS Dean Toni Carbo said, "He was an extraordinary teacher and mentor to students and junior faculty." Stephen Hirtle, Department of Information Science and Telecommunications Chair added, "Dr. Korfhage was a strong mentor and his office constantly had a line of students, whom he would engage for hours in intellectual discussions. He guided the department for many years with this academic rigor, belief in doing what is right, and a wonderful sense of humor.

He will be missed by all in the department and school."

Earlier this year the School established the Robert R. Korfhage Award for Excellence in "Information Retrieval." This award will be made in recognition of Dr. Korfhage's outstanding scholarship, excellent teaching, and dedicated service to the School of Information Sciences and the University of Pittsburgh. The award was established to encourage collaborative research between faculty and students, as exemplified by Dr. Korfhage's work. An award of \$500 will be given annually to the best scholarly paper on information retrieval or a related topic, co-authored by at least one student and no more than one faculty member and worthy of publication in a refereed journal. The faculty has asked that memorial contributions be made to support this award.

http://www2.sis.pitt.edu/ korfhage.html

## Conferences

### IJCAI-99 Workshop on Intelligent Information Integration 31 July 1999, Stockholm

### http://www.aifb.uni-karlsruhe.de/ WBS/dfe/iii99.html

The growth of the Internet and other on-line information repositories has greatly simplified the access to numerous sources of information. But it has become cliched to observe that this growth has vastly complicated tasks involving finding, extracting, merging or synthesizing such information.

With today's tools, a tourist planning a trip to Paris cannot simply fetch from the Web a map showing all Italian restaurants close to the Eiffel Tower, although this information may well be available on the Web if maps of Paris, lists of restaurants, and of tourist sites are combined. The problems is one not of information distribution, but of information integration. Building tools to simplify access to the wealth of available information constitutes a significant challenge to computer science. Artificial Intelligence is well-suited to this challenge, with its emphasis on heuristic solutions, knowledge representation and knowledgeintensive techniques, explicit management of uncertainty, learning and adaptivity, planning, and so forth.

Over the past several years, the "information integration" community in AI has been exploring these issues. The result has been substantial progress on problems such as representing information sources; planning information-gathering actions; handling semantic heterogeneity; optimizing queries; caching; exploiting ontological knowledge; tools for Web sites construction; resource discovery; automatically learning to access sources; and scaling informationgathering systems up to the "real world". Information on workshops on this topic is available at www.tzi.de/ grp/i3 and www.isi.edu/ariadne/aiii98wkshp/index.html.

### Topics of interest include:

modeling the contents of information systems;flexible approaches to selecting relevant sources; approaches for efficient and flexible query planning; learning or constructing wrappers for extracting data; resolving inconsistencies in identifying objects; integration approaches using ontologies/contexts; design principles for ontologies used for integration; languages for information integration; advanced integration architectures; semantic, schematic, vocabulary, data heterogeneity; information sources in Internet, Intranet; classification schemes (for mediators, semantic heterogeneity, etc.); tools for supporting information integration; reviews and evaluation of existing integration approaches; practical experience with integration approaches; theoretical perspectives of information integrations; ontology mapping, ontology algebras and context logic; intelligent information retrieval; security aspects; change management; federated databases and multi-databases; integration of uncertain or inaccurate sources

### Important dates

Submission deadline: 1 March 1999 Notification of acceptance:1 April 1999

Camera ready copy and author registration due: 24 April 1999 Workshop:31 July 1999

### Submission procedure

Authors should submit a full paper electronically either as a Postscript, HTML or PDF. In addition, authors should submit an ASCII version of their title page with abstract by email.

To submit your paper, send it's URL to dieter.fensel@aifb.uni-karlsruhe.de

Submission Format: The first page of submitted papers should include: title, author names, affiliations, postal addresses, electronic mail addresses, telephone and fax numbers for all authors, and a brief abstract. All correspondence will be sent to the author designated as contact person in the electronic title page. Submissions should not exceed 6000 words and should be printed on 8.5" x 11" or A4 paper with at least 1 inch margins on all sides. A publication of selected articles in a special issue of a journal is planned.

### Organising committee

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The proceedings of the workshop will be made available online

more conferences on page 8

## Net \_\_\_\_\_ IT meets ESP

The word famous paranormalis Uri Geller will team up with Internet service LineOne and invite cameras into his house as part of a year long mind-reading competition.

It is the first time the public will be allowed such an intimate 24-hours-aday insight into a celebrity's home. A web camera, christened the "Uricam", has been positionined in Geller's living room an visitors to the LineOne site (w w w. u r i g e l e r. c o m/u r i c a m/index.html) will be able to follow him as he goes about his daily routine. "It give me the opportunity to suddenly go and communiate - both mentally and in reality - with people whenever I get inspired,: Uri Geller said.

At 11.00 am and 11.00pm on the 11th of each month throughout the year, Uri Geller will be live online. Anyone logged on at that precise time, will be able to try their hand at matching his awesome powers by attempting to read his mind and establish the image that he will be mentailly transmitting. The image has already been drawn, and is locked in a safe at his house.

LineOne will be running a competition for the person who comes closest to guessing the image Uri has drawn (in the event of more than one entrant depicting the image exactly, there will be a draw). The prize is a Citroen Saxo 1.1iX, handpainted by Uri.

In addition, each month Uri will also invite visitors to try and read his mind for smaller, less detailed pictures to win signed copies of his new book *'Uri Gellers Little Book of Mind-Power'*.

The competition will run for one year, and the overall winner of this original prize will be announced on LineOne during the total eclipse of the sun at exactly 11.11am on 11th August, 1999.

### Distributed Information Management

The Engineering and Physical Sciences Research Council has launched a new conditional responsive programme in dis-tributed information management. The DIM programme is being run by the Informatin Technology & Computer Science Programme. The objective of the DIM programme is to stimulate research into the development and management of complex distributed information systems concerned with the understanding, collation and processing of large volumes of multimedia information from diverse sources.

The programme will support fundamental, long term, speculative research aimed at addressing the major technical challenges in distributed information management.

Research topics that fall under this call for proposals include:

\*Describing the content, qualities and interactions of distributed data, information, knowledge, and related processes.

\*Data fusion from diverse distributed sources.

\*Profiling individuals, groups, and organisations as information providers and information users, with associated privacy, integrity and presentation issues.

\*Architectural issues including naming, access control, and permitted destruction of information, processes, profiles, and relationships.

\*Causal dependencies and the management of inconsistency.

\*Management of evolution and change.

\*Verification and validation of distributed information systems.

\*Fault tolerance and the management of fault propagation.

\*Metrics suitable for evaluating, tuning and managing distributed information systems, including the creation of appro-priate abstractions.

Workshops are to be held to exchange ideas and work in progress, the first is scheduled for September 1999. Contact: Peter Hedges, EPSRC, Polaris House, North Star Avenue, Swindon SN2 IET. Tel (01793) 444428. Email p.hedges@epsrc.ac.uk. Web http:// www.epsrc.ac.uk. Closing Date: 1/ 3/99

## Race, ecomony and the net

High Technology and Low-Income Communities: Prospects for the Positive Use of Advanced Information Technology - http:// web.mit.edu/sap/www/high-low/

What Color is the Net? - http:// www.hotwired.com/netizen/97/11/ index2a.html

Losing Ground Bit by Bit: Low-Income Communities in the Information Age - http:// www.benton.org/Library/Low-Income/

Falling Through the Net II: New Data on the Digital Divide - http://www.ntia.doc.gov/ntiahome/net2/

Impact of CTCnet Affiliates: Findings from a National Survey of Users of Community Technology Centers - http://www.ctcnet.org/ impact98.htm

### Net 2 Researchers Find Sad, Lonely World in Cyberspace

### **By AMY HARMON**

In the first concentrated study of the social and psychological effects of Internet use at home, researchers at Carnegie Mellon University have found that people who spend even a few hours a week online experience higher levels of depression and loneliness than they would have if they used the computer network less frequently.

Those participants who were lonelier and more depressed at the start of the two-year study, as determined by a standard questionnaire administered to all the subjects, were not more likely to use the Internet. Instead, Internet use itself appeared to cause a decline in psychological wellbeing, the researchers said.

The results of the \$1.5 million project ran completely contrary to expectations of the social scientists who designed it and to many of the organizations that financed the study. These included technology companies like Intel Corp., Hewlett Packard, AT&T Research and Apple Computer, as well as the National Science Foundation.

"We were shocked by the findings, because they are counterintuitive to what we know about how socially the Internet is being used," said Robert Kraut, a social psychology professor at Carnegie Mellon's Human Computer Interaction Institute. "We are not talking here about the extremes. These were normal adults and their families, and on average, for those who used the Internet most, things got worse." The Internet has been praised as superior to television and other "passive" media because it allows users to choose the kind of information they want to receive, and often, to respond actively to it in the form of e-mail exchanges with other users, chat rooms or electronic bulletin board postings.

Research on the effects of watching television indicates that it tends to reduce social involvement. But the new study, titled "HomeNet," suggests that the interactive medium may be no more socially healthy than older mass media. It also raises troubling questions about the nature of "virtual" communication and the disembodied relationships that are often formed in the vacuum of cyberspace.

Participants in the study used inherently social features like e-mail and Internet chat more than they used passive information gathering like reading or watching videos. But they reported a decline in interaction with family members and a reduction in their circles of friends that directly corresponded to the amount of time they spent online.

At the beginning and end of the two-year study, the subjects were asked to agree or disagree with statements like "I felt everything I did was an effort," and "I enjoyed life" and "I can find companionship when I want it." They were also asked to estimate how many minutes each day they spent with each member of their family and to quantify their social circle. Many of these are standard questions in tests used to determine psychological health.

For the duration of the study, the subjects' use of the Internet was recorded. For the purposes of this study, depression and loneliness were measured independently, and each subject was rated on a subjective scale. In measuring depression, the responses were plotted on a scale of 0 to 3, with 0 being the least depressed and 3 being the most depressed. Loneliness was plotted on a scale of 1 to 5.

By the end of the study, the researchers found that one hour a week on the Internet led, on average, to an increase of .03, or 1 percent, on the depression scale, a loss of 2.7 members of the subject's social circle, which averaged 66 people, and an increase of .02, or four-tenths of 1 percent, on the loneliness scale.

The subjects exhibited wide variations in all three measured effects, and while the net effects were not large, they were statistically significant in demonstrating deterioration of social and psychological life, Kraut said.

Based on these data, the researchers hypothesize that relationships maintained over long distances without face-to-face contact ultimately do not provide the kind of support and reciprocity that typically contribute to a sense of psychological security and happiness, like being available to babysit in a pinch for a friend, or to grab a cup of coffee.

"Our hypothesis is there are more cases where you're building shallow relationships, leading to an overall decline in feeling of connection to other people," Kraut said.

The study tracked the behavior of 169 participants in the Pittsburgh area who were selected from four schools and community groups. Half the group was measured through two years of Internet use, and the other half for one year. The findings will be published this week by The American Psychologist, the peer-reviewed monthly journal of the American Psychological Association.

Because the study participants were not randomly selected, it is unclear how the findings apply to the general population. It is also conceivable that some unmeasured factor caused simultaneous increases in use of the Internet and decline in normal levels of social involvement. Moreover, the effect of Internet use varied depending on an individual's life patterns and type of use. Researchers said that people who were isolated because of their geography or work shifts might have benefited socially from Internet use.

Even so, several social scientists familiar with the study vouched for its credibility and predicted that the findings would probably touch off a national debate over how public policy on the Internet should evolve and how the technology itself might be shaped to yield more beneficial effects.

"They did an extremely careful scientific study, and it's not a result that's easily ignored," said Tora Bikson, a senior scientist at Rand, the research institution. Based in part on previous studies that focused on how local communities like Santa Monica, Calif., used computer networks to enhance civic participation, Rand has recommended that the federal government provide e-mail access to all Americans. "It's not clear what the underlying psychological explanation is," Ms. Bikson said of the study. "Is it because people give up day-to-day contact and then find themselves depressed? Or are they exposed to the broader world of Internet and then wonder, 'What am I doing here in Pittsburgh?' Maybe your comparison standard changes. I'd like to see this replicated on a larger scale. Then I'd really worry."

Christine Riley, a psychologist at Intel Corp., the giant chip manufacturer that was among the sponsors of the study, said she was surprised by the results but did not consider the research definitive.

"For us, the point is there was really no information on this before," Ms. Riley said. "But it's important to remember this is not about the technology, per se; it's about how it is used. It really points to the need for considering social factors in terms of how you design applications and services for technology."

The Carnegie Mellon team -- which included Sara Kiesler, a social psychologist who helped pioneer the study of human interaction over computer networks; Tridas Mukophadhyay, a professor at the graduate business school who has examined computer mediated communication in the workplace; and William Scherlis, a research scientist in computer science -- stressed that the negative effects of Internet use that they found were not inevitable.

For example, the main focus of Internet use in schools has been gathering information and getting in touch with people from far-away places. But the research suggests that maintaining social ties with people in close physical proximity could be more psychologically healthy.

"More intense development and deployment of services that support pre-existing communities and strong relationships should be encouraged," the researchers write in their forthcoming article. "Government efforts to wire the nation's schools, for example, should consider online homework sessions for students rather than just online reference works."

At a time when Internet use is expanding rapidly -- nearly 70 million adult Americans are on line, according to Nielsen Media Research -- social critics say the technology could exacerbate the fragmentation of U.S. society or help to fuse it, depending on how it is used.

"There are two things the Internet can turn out to be, and we don't know yet which it's going to be," said Robert Putnam, a political scientist at Harvard University whose forthcoming book, "Bowling Alone," which is to be published next year by Simon & Schuster, chronicles the alienation of Americans from each other since the 1960s. "The fact that I'm able to communicate daily with my collaborators in Germany and Japan makes me more efficient, but there are a lot of things it can't do, like bring me chicken soup."

Putnam added, "The question is how can you push computer mediated communication in a direction that would make it more community friendly."

Perhaps paradoxically, several participants in the Internet study expressed surprise when they were informed of the study's conclusions by a reporter.

"For me it's been the opposite of depression; it's been a way of being connected," said Rabbi Alvin Berkun, who used the Internet for a few hours a week to read The Jerusalem Post and communicate with other rabbis across the country.

But Berkun said his wife did not share his enthusiasm for the medium. "She does sometimes resent when I go and hook up," he said, adding after a pause, "I guess I am away from where my family is while I'm on the computer." Another possibility is that the natural human preference for faceto-face communication may provide a self-correcting mechanism to the technology that tries to cross it.

The rabbi's daughter, Rebecca, 17, said she had spent a fair amount of time in teen-age chat rooms at the beginning of the survey in 1995.

"I can see how people would get depressed," Ms. Berkun said. "When we first got it, I would be on for an hour a day or more. But I found it was the same type of people, the same type of things being said. It got kind of old."

New York Times, August 30, 1998

## Conferences

### Workshop on logical and uncertainty models for information systems

associated with the Fifth European Conference on Symbolic and Qualitative Approaches to Reasoning with Uncertainty

### University College London (UCL), London, England

### 5-6 July 1999

The purpose of the workshop is to promote discussion and interaction among members of the Information Systems community with research interests in logical and uncertainty models for the treatment of semistructured and unstructured information. We are particularly interested in experiences dealing with unstructured or poorly structured information, since we believe that a very large part of the information that will be available in future will be of this nature.

The workshop aims at being an international forum for the presentation of both theoretical and applicative results. Papers describing application experiences are particularly encouraged.

#### Workshop chairs

Fabio Crestani - University of Glasgow, Scotland

Mounia Lalmas - Queen Mary & Westfield College, England

#### Program committee

Peter Bruza - Queensland University of Technology, Australia. Theo Huibers - DOXiS, The Netherlands. Carlo Meghini - IEI-CNR, Pisa, Italy. Adrian Muller - IBM, Germany. Jian-Yun Nie - University of Montreal, Canada. Iadh Ounis - IMAG, Grenoble, France. Gabriella Pasi - ITIM-CNR, Milan, Italy

#### Topics of interest

Papers are solicited dealing with,

Multivalued Logics, Inductive Methods, Rough Sets, Description Logics, Abductive Methods, Approximate Reasoning, Belief Revision, Relevance Theory

### Submission of papers

Authors are invited to submit original papers of at most 10 pages by e-mail to one of the email addresses below, using "LUMIS99 Submission" as the subject line. Please submit the paper in postscript.

There is no particular format for the submission, but the cover page should include title, authors, and the coordinates of the corresponding author. Authors should also indicate in the first page which of the thematic areas best describes the content of the paper (if none is appropriate, please give a set of keywords that best describe the topic of the paper).

To be considered, submissions must be received no later than February 12. Authors will be notified of the acceptance of their papers by March 12.

All accepted contributions will be published in a public report of the Queen Mary & Westfield College (to be confirmed). The format guidelines for the final paper version will be announced later.

Final camera-ready copies of accepted papers will be due by May 1st 1999. A number of selected papers, whose final version will have to be received by April 12, will be published in the ECSQARU'99 conference proceedings.

#### Correspondence

Direct correspondence, inquiries and submissions relating to this workshop should be addressed to:

Fabio Crestani, Computing Science Department, University of Glasgow, Glasgow G12 8QQ, Scotland. Email: fabio@dcs.gla.ac.uk

Mounia Lalmas (until January 1999), Informatik VI, University of

Dortmund, Dortmund D-44 227, Germany. Email: mounia@ls6.cs.unidortmund.de

Important dates Submission of papers - 12 February 1999 Notification of acceptance - 12 March 1999 Final submissions - 12 April 1999 (for selected papers) Final submissions - 1 May 1999 (for accepted papers) Workshop - 5-6 July 1999

### **Final Mira Conference**

### Glasgow - 14-16 April 1999

Mira is a European Union funded working group looking at how information retrieval should accommodate interactivity and multimedia, and what the implications of these are for the evaluation of IR systems. This announcement forms (1) a call for papers to be published on the themes of the Mira working group and (2) an open call for attendance at the final conference of the Mira working group. Papers

Papers describing work in progress or completed work are invited on any topic affecting the area of IR evaluation. Possible topics include, but are not limited to:

The user in the evaluation process The changing nature of IR tasks Traditional evaluation methodologies Field studies of (multimedia) IR in work domains

The relationship between Evaluation and IR design

A balanced approach to evaluation (software vs. user)

How interaction affects evaluation

The move from static to dynamic evaluation

The effects of new media on IR

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Authors are invited to submit camera-ready copies of their paper, in English, to be received no later than 10 January 1999. Papers should contain at most 7500 words and should be formatted in accordance with Springer-Verlag's Electronic Workshop guidelines. The submission should include two copies of the paper: one anonymous copy for refereeing and one full copy for publication in the draft proceedings.

Papers will be refereed and, if accepted, will be published in the Electronic Workshops in Computing series, provided that the overall quality of papers is high enough. Accepted papers will also be included in the form submitted in a draft proceedings which will be distributed to all Mira Conference attendees. Authors will then have until 16 May 1999 to revise their paper in light of referees' comments and feedback from the workshop itself. The final version of papers will then be included in an e-WIC publication.

Authors should note that acceptance for publication in the proceedings does not guarantee presentation time at the conference. The Programme Committee will select a sub-set of papers for presentation to achieve a balance of topics discussed. However, all accepted papers will appear in both the draft and final proceedings (subject to referee comments).

Please note: papers should not be submitted to the electronic Workshops in Computing editors directly! Initial submission is as camera ready - not electronic. Paper submissions should be sent to:

Mira Conference Organisation Computing Science Department University of Glasgow 17 Lilybank Gardens Glasgow G12 8RZ Scotland Enquiries to: mira99@dcs.gla.ac.uk Phone: +44 141 330 4264 Fax: +44 141 330 3661 Conference

The conference will be designed to explore and exchange the best current thinking and opinion on the conference theme. With this in mind the preliminary programme plans an approximately equal mix of participatory demonstrations and exercises, discussion panels or debates on key questions, and selected invited papers.

Demonstrations or exercises are currently planned on the following topics:

Photographic retrieval for journalists How much consensus is found for relevance judgements?

Exploring the possibility of a multimedia test collection

Applying a multi-level evaluation framework to IR

Panels are currently planned on the following topics:

The worth of the TREC programme What kind of relevance should we measure?

Interactive system performance depends on work context so standard test-beds are of no use

Many levels of evaluation are essential

Programme Chair: Prof Keith van Rijsbergen

Programme Committee: Dr Stephen Draper, Dr Mark Dunlop

Local Organiser: Fiona Nixon

This conference is organised and underwriten by the Mira working group on evaluation in information retrieval. Unlike previous meetings of Mira this conference is open to attendees without invitation, but a small registration fee will be charged. The conference will be held in Glasgow City Centre with a range of accommodation being available throughout the City - more details to follow.

Enquiries to: mira99@dcs.gla.ac.uk Phone: +44 141 330 4264 Fax: +44 141 330 3661



*Retrieval.* KAREN SPARCK JONES AND

KAREN SPARCK JONES AND PETER WILLETT (editors). Morgan Kaufmann Publishers. (1997) ISBN 1-55860-454-5. \$29.95. 589 pp. Softbound.

In a 1983 letter to the members of the ACM SIG on Information Retrieval (IR), its chairman Gerard Salton (to the memory of whom the book here reviewed is aptly dedicated) expressed his concern that, while in the 1960s 'anyone concerned with the automatic processing of data and text seemed to be working in IR', this trend had seemingly reversed in favour of the database community, leaving only 'a small number of active participants in IR work'. Fifteen years later, although databases are still an important topic of research, there is little doubt that the excitement lies elsewhere, and (ironically enough) close to where it was in the 1960s: if a poll were made, asking to name the computer science technology that has had the most profound impact on the general public in the last five years, Internet 'search engines' would probably crush the opposition. Key contributors to the ever-growing success of the Internet, these children and grandchildren of the IR systems that Salton, Sparck Jones and other pioneers have been experimenting with since the 1960s, have arisen an excitement that will no doubt contribute to the success of these Readings.

This authoritative work brings together a set of key papers that have contributed in laying the scientific foundations not only of Internet search engines, the conspicuous 'tip of the iceberg' of IR nowadays, but also of the widely installed, if less glitzy, IR systems that are the essential everyday tools of the trade to many organisations. The choice of papers has favoured (a) technical papers that have had a determining influence on the field, rather than review papers; (b) papers proposing approaches and techniques that have since become established, rather than recent articles that have not yet withstood the test of time; (c) papers that altogether cover IR as a whole and, to a certain extent, 'advanced' information management tasks such as document filtering, categorisation and summarisation.

I especially appreciated the 'categorisation scheme' that was chosen for this book. The papers are subdivided into eight chapters, respectively centred around the history of IR (Chapter 2), the key concepts of IR (Chapter 3), the evaluation of IR systems and techniques (Chapter 4), the formal models that underlie IR systems (Chapter 5), the techniques that are used for implementing them (Chapter 6), important experimental IR systems (Chapter 7), and recent extensions to the basic IR paradigm, including the above-mentioned 'advanced' information management tasks, and the management of new types of documents, such as multimedia (Chapter 8). The final Chapter 9 contains a single, extremely thought-provoking paper discussing

the inherent limits of IR. Of special importance, an index of no less than 15 pages is included at the end of the book (not a common feature of previously published article collections).

Each chapter is preceded by an introduction in which the editors present an overall view of the theme of the chapter, put the included articles in the context of this overall view, and provide key bibliographic references integrating those already contained in the articles themselves. These introductory chapters are no routine summaries, but offer to the reader an original synthesis and a stimulating interpretation of the theme of the chapter.

This is an important book, and one that was largely needed. Information retrieval is a discipline that has matured slowly, although steadily, and one in which technological transfer, from research laboratories to the factory floor, has been slower than elsewhere. It is only recently that IR techniques or concepts (e.g. ranked retrieval) that had since long proven valuable in experimental settings, have been incorporated into commercial products. Because of this, many key papers that have determined today's developments, and are thus still essential reading, are scattered through rather old and sometimes hard to find journal volumes and conference proceedings (my estimate is that only a fraction of the key papers included here can be found in libraries with a less than robust information science and library science section). It is extremely appropriate, then, that a well thought-out choice of important papers in this area should have been made available in compact form and at a reasonable price.

Unlike neighbouring disciplines (such as e.g. databases) for which a wide choice of textbooks is available, since the mid-1980s IR has been suffering from a chronic lack of good, comprehensive, and up-to-date textbooks. Although not a textbook, these *Readings* will no doubt be an extremely useful support for lecturers offering IR courses, thanks not only to their balanced choice of material, but also to their excellent organisation into a natural thread that develops from the basic concepts to the recent, cuttingedge applications.

While this book will be definitely appreciated by prac-titioners of neighbouring disciplines (here I am especially thinking of databases, natural language processing, multimedia, hypertext, library and information science), by graduate students, and by information professionals, to whom it offers a unique and first-hand look at the development of this discipline, it is nothing less than an absolute must for anyone actively involved in IR, either in research or development.

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Reviewed provided courtesy of The Computer Journal

### The INFORMER

The Informer is published quarterly by the British Computer Society Information Retrieval Specialist Group.

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Informer Vol 8 Winter1998