



# INFORMER



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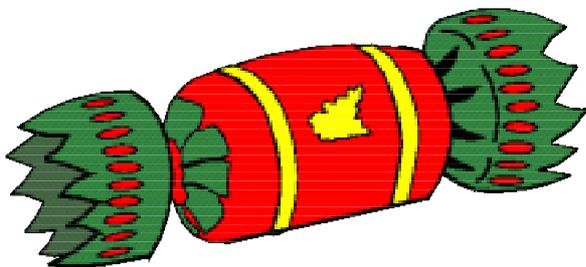
## You'd better not cry

## You'd better not pout...



## ...The Informer's out

What a cracker!!!!!!



Merry Christmas!!!!!!

Jon & Ian

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# Who's who

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## International workshop on knowledge representation for interactive multimedia systems KRIMS II

(<http://www.math.aegean.gr/KRIMSII/KRIMSII.html>)

**In conjunction with the 6th  
International Conference on  
Principles of Knowledge  
Representation and Reasoning  
(KR'98)**

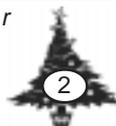
**Trento, Italy, 1st of June, 1998**

Major topics to be addressed by  
KRIMS-II include:

\*knowledge representation  
schemes for multimedia information  
repositories supporting interactivity in  
content determination and/or  
communication of information.  
\*knowledge representation for  
interactive multimedia information  
content determination, integration, co-  
ordination and presentation. \*-  
methodologies and systems for  
construction and maintenance of  
knowledge bases for interactive  
multimedia systems. \*-methodologies  
and systems for construction and  
maintenance of interactive multimedia  
DBMS.

The target audience includes  
researchers in the areas of collaborative  
systems, personal assistants, intelligent  
multimedia presentation systems,  
adaptive interfaces, multimedia  
information retrieval, and intelligent  
integration of information.

Papers will be selected on the basis  
of a rigorous review of full paper  
contributions. Authors should submit  
5 copies to one of the members of the  
Organizing Committee by February 16,  
1998. Papers received after the  
deadline will be rejected without  
review.

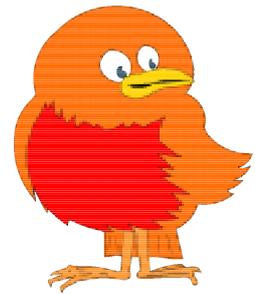


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# Award

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**Karen Spärck Jones, was honoured by City University on Friday 14 November at the graduation ceremony. She was awarded the honorary degree of Doctor of Science by the Vice Chancellor, Raoul Franklin. She was presented to the Vice Chancellor by Professor Stephen Robertson of City University's Information Science Department.**



the Salton award), and, more recently, a well-deserved Fellowship of the British Academy. This last emphasizes her obliviousness to traditional boundaries: for her, at least, Snow's two cultures are a myth.

The oration speech, given by Steve Robertson, was as follows

Vice-Chancellor,

One might be tempted, in the way that we have of bringing order to the world by labelling it, to call Karen Sparck Jones a computer scientist. She is currently Reader in Computers and Information, and has for most of her working life been associated with one of the best-known computer science departments in the world - except that, in true idiosyncratic Cambridge fashion, it has never itself succumbed to that label, having been for many years the Mathematical Laboratory and latterly the Computer Laboratory. But looking through her wonderful array of contributions to professional service, some of them at least would sit quite happily with that label: membership of the Alvey committee, for example, or that of the Foresight Programme Panel on Information Technology, and some of her many editorial ventures.

However, a closer look at those same lists reveals many activities that do not at all conform to that view. We see membership of a committee on linguistics in documentation, and of the executive committee of the Museums Documentation Association; we see membership of the Department of Philosophy Advisory Board at Carnegie Mellon University, and of the Advisory Committee for the Research and Innovation Centre of the British Library.

Actually, she has always been at arms length from the areas most

commonly associated with the phrase computer science. She is not interested in compilers or programming languages, in algorithms or requirements analysis or specification, in software reliability or security. She is, however, interested in philosophy and in language, in information (in the human sense) and knowledge and communication. And she is, above all, interested in the idea of applying computers and computing to these aspects of our lives.

Her PhD was in philosophy, entitled Synonymy and semantic classification. At that time (from the late 1950s on) she was associated with the Cambridge Language Research Unit, led by Margaret Masterman. That unit was relatively short-lived, but was among the first groups to see the potential of applying computers to such hard-to-pin-down human inventions as language. The two major themes of her life's work so far, computational linguistics and information retrieval, were both already apparent in her PhD.

For all sorts of reasons, these two fields have developed rather separately from each other. Karen is one of the few people who manages to straddle them, and her reputation as a researcher in both fields is second to none.

She has a long-standing involvement with the Association for Computational Linguistics, and served as its president three years ago. Her various honours include the 1988 award for research achievement of the ACM Special Interest Group on Information Retrieval (now known as

I must have met Karen first in the late 1960s, but first had the pleasure and privilege to work seriously with her in the early 70s, when I was at University College. When I followed my colleague Nick Belkin to City in 1978, we reinforced a link which she already had with the then Centre for Information Science here. In 1990, she joined the advisory group for our effort in the international text retrieval competition known as TREC. Our success in that competition owes a lot to her; she has been a very good friend to the best research department in the University.

Karen is a great communicator. I treasure the many messages, via many media, that I receive from her. Indeed the medium is irrelevant - she communicates with equal felicity in person, on paper, via the telephone or by email, and her communications are instantly recognisable in any medium. I once received an email from her which began "This is indiscreet - burn on receipt!"

Her energy and enthusiasm are truly legendary. Everyone who meets her is deeply impressed by the commitment and drive which she demonstrates in abundance. That this energy is backed by an exceptional intellect makes for a powerful combination.

(Vice-)Chancellor, it gives me the very greatest pleasure, on both a personal and a professional level, to present to you Karen Ida Boalth Sparck Jones, for admission to the degree of Doctor of Science, Honoris Causa.

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# Announce

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## Information Retrieval Systems: Theory and Implementation

Gerald Kowalski

School of Engineering and Applied Science, George Washington University, US

This article is associated with a new text book on information retrieval systems. An answer book is available but must be requested and will be sent only to instructors of the course. Table of Contents available at <http://www.seas.gwu.edu/faculty/kowalski>

The growth of the Internet and the availability of enormous volumes of data in digital form has necessitated intense interest in techniques to assist the user in locating data of interest. The Internet has over 350 million pages of data and is expected to reach over 1 billion pages by the year 2000. Buried on the Internet are both valuable nuggets to enrich our lives and a large quantity of information the average person does not care about. The Digital Library effort is also progressing with the goal of migrating from the traditional book environment to an electronic environment.

The challenge to both authors of new publications that will reside on this information domain and developers of systems to locate information is to be able to sort out the non-relevant items from those desired by the consumer. In effect, as we proceed down this path, it will be the computer that determines what we see versus the human being.

The days of going to a library and browsing the new bookshelf are being replaced by electronic searching the Internet or the library catalogs. Whatever the search engines return will restrict our knowledge of what information is available. An understanding the basics of Information Retrieval Systems puts this new environment into perspective

for both the creator of items and the consumer trying to locate information.

This book provides a theoretical and practical explanation of the latest advancements in information retrieval and their application to existing systems. It takes a system approach and discusses all aspects of an Information Retrieval System. The importance of the Internet and its associated hypertext linked structure are put into perspective as a new type of information retrieval data structure. The total system approach also includes discussion of the human interface and the importance of information visualization for identification of relevant information. The theoretical metrics used to describe information systems is expanded to discuss their practical application in the uncontrolled environment of real world systems.

The primary goal of writing this book is to provide a college text on Information Retrieval Systems. But in addition to the theoretical aspects, the book maintains a theme of practicality that puts into perspective the importance and utilization of the theory in systems that are being used by anyone on the Internet. The reader will gain an understanding of what is achievable using existing technologies and the deficient areas that warrant additional research.

The first three chapters define the scope of an Information Retrieval System. The theme that the primary goal of an Information Retrieval System is to minimize the overhead associated in locating needed information is carried throughout the book. Chapter 1 provides a functional overview of an Information retrieval System and differentiates between an information system and a database management system. Chapter 2 focuses on the functions available in an information retrieval system. An understanding of the functions and why



they are needed helps the reader gain an intuitive feeling for the application of the technical algorithms presented later. Chapter 3 provides the background on indexing and cataloging that formed the basis for early information systems and updates it with respect to the new digital data environment.

Chapter 4 provides a discussion on word stemming and its use in modern systems. It also introduces the underlying data structures used in information retrieval systems and their possible applications. This is the first introduction of hypertext data structures and their applicability to information retrieval. Chapters 5, 6 and 7 go into depth on the basis for search in information retrieval systems. Chapter 5 looks at the different approaches to information systems search and the extraction of information from documents that will be used during the query process. Chapter 6 describes the techniques that can be used to cluster both terms from documents for statistical thesauruses and the documents themselves. Thesauruses can assist searches by query term expansion while document clustering can expand the initial set of found documents to similar documents. Chapter 7 focuses on the search process as a mapping between the user's search need and the documents in the system. It introduces the importance of relevance feedback in expanding the user's query and discusses the difference between search techniques against an existing database versus algorithms that are used to disseminate newly received items to users mail boxes. *contd on page 6*

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# Book Reviews

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The *Informer* would like to thank the *Computer Journal* for its permission to reproduce the Book Reviews featured in this issue.



Donal J. Flynn and Olivia Fregoso Diaz *Information Modelling: An International Perspective*. Prentice Hall. 1996. ISBN 0-13-234691-5. £18.95 270 pp. softbound.

This book examines the systems analysis tools of five methods: Information Engineering (IE), the UK's SSADM, France's MERISE, Spain's MEIN, and Coad & Yourdon's OOA. It uses a 'framework' (a list) of 17 data concepts, such as *entity* and *aggregation*; six process concepts, such as *data store*: and the four perspectives of *process decomposition*, *behaviour*, *data flow*, and *state transition*. The intent is to encourage harmonisation of such methods by using the concepts to show correspondences between them. The intended audience comprises second year undergraduates in computing or business, systems analysts and researchers.

The authors think it likely that methods will converge before too long, and what they will converge on (Euromethod?) is a superset of them all, which will be very like the proposed framework. However, the resulting super-method will then, as some methods do now, require expert choice to select correct modelling concepts, and it will therefore need to be extended with 'quality criteria': they suggest *precision*, *non-complexity*, and *naturalness*. This does not appear to worry them, but it would be better (except for our employment prospects) not to make such choices: they take effort, and we could get them wrong.

An overelaborate case study is used to compare and contrast the methods, at great length and superficiality. For instance, 18 pages on relationships reveal that you cannot specify mandatory/optional in MEIN; converse relationships are not named in MEIN what objects a process involving two or more objects should belong to:

another task for expert choice using quality criteria?)

How poorly we understand systems analysis! And how sad that it is easier to invent, standardise, elaborate, and even harmonise methods than it is to find good tools and techniques, or even lucidly to criticise and refine the ones that we already have.

Adrian Larnar

De Monfort University

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Colleen Crangle and Patrick Suppes *Language and Learning for Robots*. CLSI Publications, distributed by Cambridge University Press. Publisher. 1995. ISBN 1-881526-19-4. £16.95. 276 pp. softbound.

This book, one of the CSLI lecture notes series, is a gathering together of the authors' work over the past ten years in the field of intractable robots. Though I have not read all their published work in this field, it is indisputable that they are unique in their approach to their research. They focus on the natural language and cognitive aspects of instructing robots; their work is based on a sound theoretical foundation and it is also oriented to practical application. They straddle the disciplines of mathematical logic, philosophy, computer science, engineering and linguistics, drawing from each of these in a significant and non-superficial manner. So, it is right and fitting that they have produced a book that presents their work in the field of intractable robots in a coherent fashion.

It seems that the main intent in putting together this book is to present in one publication — cohesively — the results of many years of work on related aspects of the central theme. An

additional aim is to broaden the natural language aspect of their work. To do this, the authors have used some work that has previously been published, as well as presenting unpublished work. The overall structure of the book is coherent; there is certainly no sense that the book is a collection of papers. My only reservation is that there is less in the way of conclusions and links between chapters than I would like. Certainly there is some; but the final chapter for example seems to end abruptly. There is no drawing together of the various themes through the book, but instead a summary of related work on language acquisition. This minor omission is by no means a flaw. The book is well enough written and well enough structured for such niceties to not be essential.

The book is structured into three sections, addressing (roughly) theoretical foundations, language processing and language learning. All these are oriented ultimately to their application to intractable robots, and the examples usually reflect this. That is not to say that this book is of no wider relevance than robot applications. The work is based firmly in a computational linguistics paradigm, and is of relevance to researchers working on natural language understanding (especially instruction understanding) as well as those working on language learning.

Particular topics dealt with in the book include the application of augmented phrase-structure grammars, context-fixing semantics, geometric models and language learning, from corrective instruction and from task descriptions. A chapter is devoted to the issues related to saying 'Stop' to a robot. This is a topic that I feel deserves even more attention; certainly it is connected to more general issues than intractable robots. A nice feature in the book is the use of a model for

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arithmetic instruction. The model itself is described in one of the earlier chapters; then in the section of the book that is about learning, the model serves as an example for discussing discourse.

I do not believe that this is the place to comment on Crangle & Suppes' particular research orientation and their results; suffice it to say that I have always found their work sound and scientifically formulated. The task of this review is to comment on this particular book — and my view is that it achieves its goal admirably. It is a pleasure to read, at the same time as presenting significant research in a non-trivial fashion. I believe that the authors have succeeded in presenting their work in this field, which has always been of a high standard, in one coherent book.

Sheila Rock

*University of the Witwatersrand,  
Johannesburg*

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*contd from page 4.*

Chapter 8 introduces the importance of information visualization and its impact on the user's ability to locate items of interest in large systems. It provides the background on cognition and perception in human beings and then how that knowledge is applied to organizing information displays to help the user locate needed information. Chapter 9 describes text scanning techniques as a special search application within information retrieval systems. It describes the hardware and software approaches to text search. Chapters 10 and 11 investigate how to evaluate information retrieval systems. Chapter 10 focuses on the theoretical and standard metrics used in research to evaluate information systems. Then the techniques are analyzed to their utility in measuring operational systems and modifications to their definitions are proposed. Chapter 11 uses the metrics defined in Chapter 10 to compare various systems and algorithms.

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## The New Review of Hypermedia and Multimedia 1998 Call for Papers

NRHM (previously Hypermedia) is a refereed annual review journal covering research on practical and theoretical developments in hypermedia, interactive multimedia and related technologies. The new editorial team has introduced themed issues. Each issue (normally 10-12 papers) will review and explore one or two topical themes from a variety of perspectives.

The themes for the 1998 issue of the New Review are:

\*hypermedia for museums and cultural heritage

Theme editors Douglas Tudhope and Daniel Cunliffe

\*adaptivity and user modelling in hypertext/hypermedia systems:

Guest editors Peter Brusilovsky and Maria Milosavljevic

(Adaptive Hypertext and Hypermedia Home Page <http://www.education.uts.edu.au/projects/ah/index.html>)

Papers should be submitted to the appropriate theme editor no later than June 1st 1998. For Instructions to Authors, see <http://www.comp.glam.ac.uk/~NRHM/> or contact the Editor. Please feel free to contact the theme editors for more information about the topics of the special issue.

Submissions are welcomed on either theme, including but not restricted to the following topics:

Adaptive hypermedia

\*user modelling in adaptive hypermedia  
\*adaptive educational hypermedia systems  
\*adaptive information systems  
\*adaptive museum hypermedia  
\*adaptive navigation



support \*natural language techniques for dynamic hypertext generation  
\*adaptive WWW navigation aids  
\*adaptive visualization of hypertext structure  
\*empirical studies of adaptive hypermedia  
\*content adaptation in hypertext and hypermedia  
\*personalized information spaces  
\*adaptivity and adaptability in a hypermedia context  
\*adaptive information retrieval

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Maria Milosavljevic - [mariam@mpce.mq.edu.au](mailto:mariam@mpce.mq.edu.au), MRI Language Technology Group, Macquarie University, Sydney, NSW 2109, Australia.

Hypermedia for Museums and Cultural Heritage

\*hypermedia link services  
\*networked access  
\*time-varying interactive presentations  
\*image, audio and video databases  
\*navigation design  
\*intelligent hypermedia and agents  
\*web-based museum hypermedia  
\*spatial and temporal models  
\*evaluation and studies of use  
\*metadata and intellectual access  
\*thesauri and semantic representations  
\*copyright/IPR for digital multimedia

Contact: Douglas Tudhope, Department of Computer Studies University of Glamorgan, Pontypridd, Mid-Glamorgan CF37 1DL, Wales, UK fax +1443-482715tel +1443-482271

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# Conferences

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## Digital Libraries '98 - The Third ACM Conference on Digital Libraries

"Towards the Millennium"

Pittsburgh, PA, USA, June 23-26,  
1998

(Sponsored by ACM through  
SIGIR and SIGLINK)

<http://www.ks.com/DL98/>

Digital libraries will likely figure amongst the most important and influential institutions of the 21st Century. Long a dream, the early prognostications of visionaries such as Bush, Nelson, and Licklider of large-scale, sustainable digital libraries are progressively becoming a reality with the initiation of major DL projects at national levels. Future digital libraries will not only improve access to the world's knowledge dramatically, but also act as 'collaboratories' out of which new knowledge is crafted and refined by widely-distributed teams and organizations -- knowledge that right from conception is fully interconnected with previous work.

But daunting challenges stand in the way. No amount of rhetoric can finesse the plethora of thorny issues that need addressing. While visions are cheap -- useable, scaleable, sustainable, and interoperable solutions demand intensive collaboration from researchers in many disciplines, and substantial commitments from imaginative and resourceful practitioners. Olympian though they may be, digital library initiatives will not escape the agonizing ground-level tradeoffs that characterize any large-scale practical endeavor. So what are the key outstanding problems? How can we best begin to address them? What are the major competing paradigms that claim value and vie for our support? How can the digital library community work together in

synergetic ways, and avoid the endless fragmentation and oneupmanship that so often afflicts rapidly evolving fields?

At Digital Libraries '98, we will build on the foundation laid by earlier conferences in this series, as well as the hard work of the many individuals who helped bring our field to fruition. We will strive to unite all players that have a stake in the future of digital libraries: librarians, computer



scientists, social scientists, administrators, ... academic, government and commercial organizations, ... tool builders, evaluators and users. We will continue to foster their participation as on-going members of the digital library community. Thus we invite you to participate and contribute to this very important field. Please send us your ideas for planning, your papers and other proposals for participation -- and most of all for DL98 -- be there!

Held immediately following Hypertext '98, Digital Libraries '98 will provide a common setting for researchers, practicing professionals and students to share experiences and to present results about system construction, human-computer interaction, hypertext, information retrieval, digital librarianship, digital identifiers and many other topics related to the field of digital libraries. The conference attracts distinguished attendees from a diverse range of

fields. Digital Libraries '98 will provide a forum for presentation and discussion of exciting and original developments in digital libraries through a variety of formats. The Proceedings of Digital Libraries '98 will be published by ACM Press.

Technical Program

Digital Libraries '98 will provide a common setting for researchers and practicing professionals to share experiences and compare notes about authoring, publishing, system construction, human-computer interaction, copyright issues, digital library services, electronic journals, evaluation, and many other topics. Attendees come with backgrounds in computing, library science, psychology, literature, sociology, engineering, law, medicine -- many different fields -- and we warmly invite your participation. Digital Libraries '98 will provide a forum for presentation and discussion of exciting and original developments in digital libraries through several formats: papers, panels, short papers, demonstrations, posters, tutorials, and workshops.

Topics for the conference encompass anything of relevance to the field of Digital Libraries. Possible topics include, but are not limited to: DL projects, user experience, DL technologies, search engines, name spaces, indexing, collection development and management, user support, digital librarianship, requirements for DLs, economics of DLs, lessons learned, collaborative libraries, information summarization and visualization, metadata issues, multimedia collections and many others.

Critical dates

15 Jan 98: Papers due, Proposals for Panels, Workshops, and Tutorials due.

31 Mar 98: Notification of

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acceptance for Papers, Panels, Workshops, and Tutorials.

13 Apr 98: Short Papers due.  
Proposals for Posters and Demos due.

20 Apr 98: Final versions of accepted papers due. Notification of acceptance for Short Papers, Posters, and Demos.

#### Papers

Technical papers present integrative reviews or original reports of substantive new work in areas that are theoretical (e.g., models), empirical (experiments, case studies, ...), or implementation-oriented (new systems). Papers should provide a clear, concise message to the audience, situate the work within the field, cite related work and clearly indicate the innovative aspects of the work and its contribution to the field.

Papers must be written in English and formatted single-spaced, double-columned, using the specifications at the DL98 conference web site (<http://www.ks.com/DL98/paperspecs.html>). In no case should they exceed 10 pages. Please submit 3 copies of the paper and one copy of a cover page. On the cover page include the title, author name(s) and affiliation(s), an abstract of about 200 words, several topical keywords, and complete address (including telephone, fax, email) for the author to whom correspondence should be addressed. The title, author name(s) and affiliation(s), abstract, and keywords should also appear on the first page of the paper itself.

Submission: Submit to Robert M. Akscyn, Knowledge Systems, RD2 213A Evans Road, Export, PA 15632 USA. Submissions must be received by 15 January 1998. All enquiries about submission should be directed to [rma@ks.com](mailto:rma@ks.com).



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## International conference on Flexible Query Answering Systems, FQAS'98

13-15 May, 1998

Roskilde University, Computer  
Science

Roskilde, Denmark

<http://www.dat.ruc.dk/fqas98/>

The area of Flexible Query Answering System, FQAS, is related to enhancements of inquiring or query-answering systems into technology that can be experienced as being "intelligent" or "flexible". The emphasis of this conference is on problems in users posing queries and systems producing answers.

This focus has become highly relevant as the amount of information available from local and distributed information bases has increased drastically and so have the capacity and speed of ordinary office computer. This makes it obvious to search for more advanced techniques for analyzing and processing user queries than those normally used in database systems and search engines.

A human intermediary with expertise in the domain of interest can often be considered an ideal for a flexible query-answering system. Typically, the friendly human expert attempts to interpret also in-correctly posed questions and tries to compose an answer not reflecting precisely what's in question, but rather what the expert understands to be the intention with the question.

The recent interest in Internet search engines, and the increasing needs for adding quality - in terms of flexibility, performance, precision and recall - to such engines, has further added to the importance of FQAS. Moreover, the current demand for flexible querying into information sources of diverse nature and structure, such as the World Wide Web, and data

and knowledge bases, calls for a cross-disciplinary approach from computer science and information sciences, as intended by this conference.

Topics of interest for this conference include, but are not limited to, the following.

Intelligent, flexible, cooperative approaches or systems that are based on \*fuzzy logic, including fuzzy aggregation and fuzzy querying, \*enhancing expressibility in query language using, e.g., modal or natural language constructs, \*based on logic formalisms, \*applying non-standard interpretation to model query processing, \*applying knowledge discovery to obtain domain knowledge useful in enhancing query-answering, \*capturing and refining models of users and user behaviour.

Underlying theoretical aspects related to such approaches within areas such as knowledge representation formalisms, semantics, formal logic, fuzzy logic, artificial intelligence, database technology, deductive databases and non-standard derivations, information retrieval.

#### Important dates

Submission deadline: 1 Feb 1998

Camera-ready papers: 1 April 1998

(Tentative: Tutorials, Ph.D.-seminar: 11-12 May 1998)

Regular conference: 13-15 May 1998

Submitted papers must be written in English and should not exceed 12 pages using reasonable font size, margins, and line spacing. Electronic submissions are strongly encouraged, and should be sent to [fqas98@ruc.dk](mailto:fqas98@ruc.dk). If electronic submission is not possible, send 3 hard-copies or by fine-resolution telefax to

FQAS'98 Program Chair: Henning Christiansen, Department of Computer Science Roskilde University, bldg. 20.1, P.O. Box 260, DK-4000 Roskilde, Denmark Phone: (+45) 4674 2576 Fax: (+45) 4674 3072. E-mail: [henning@ruc.dk](mailto:henning@ruc.dk)



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## Call for Papers. Second International Workshop CIA-98

**COOPERATIVE INFORMATION  
AGENTS - Learning, Mobility and  
Electronic Commerce for  
Information Discovery in the  
Internet**

**3rd (Thu) - 8th (Tue) of July 1998  
at the Agents' World Event 1998  
Cite de Sciences - La Vilette, Paris  
(France).**

*<http://www.informatik.tu-chemnitz.de/~klusch/cia98.html>*

### Workshop description

The research and application area of cooperative information agents is of rapidly increasing importance. Information agents are computational software systems that have access to multiple, heterogeneous and geographically distributed information sources. The autonomous agents have to face up to the increasing complexity of modern information environments ranging from relatively simple in-house information systems, through large-scale multidatabase systems, to the visionary Infosphere in the Internet. Cooperative information agents work together in order to achieve private or global goals. One of their main tasks is an active search for relevant information in non-local domains on

behalf of their users or other agents. This includes retrieving, analyzing, manipulating, and integrating information available from different information sources. The development of cooperative information agents requires expertise from several different research areas, especially AI, DAI, Databases, and CSCW. It is particularly important to investigate to what extent AI methods can be applied for information discovery by groups or teams of cooperative information agents in the Internet. This concerns, e.g., the use of efficient techniques from machine learning, evolutionary computing, and symbolic or numerical approaches for uncertain reasoning. Moreover, commercial aspects of information gathering in the Internet are becoming more and more relevant, e.g., agents are paid and have to pay for services. Thus, methods for rational, utility-based cooperation among the agents are needed. In addition, mobile information agents seems to be attractive for a flexible, and efficient information discovery in constrained environments.

The interdisciplinary CIA workshop series covers the whole thematic range of cooperative information agents. Each workshop will focus on a few selected themes being of particular relevance and actuality. The CIA-98 workshop will build on the success of CIA-97 ('DAI meets Databases') and mainly focus on the themes 'learning', 'mobility' and 'electronic commerce' in the context of cooperative information discovery. Topics of interest include, but are not limited to:

Architectures of information agents. - Knowledge discovery and data mining in large-scale information systems. - Transparent access to heterogeneous information sources in the Internet. - Construction and use of ontologies for multiagent information gathering. - Learning, interaction and organization of multiagent systems for information discovery in changing environments - Communication

among autonomous information agents. - Industrial applications of agent technology. - Mobile information agents in the Internet. - Collaborative information agents in distributed WWW applications. - Issues of programming cooperative information agents for the Internet. - Multiagent Systems and Geographical Databases. - Game-theoretic and other microeconomic principles for rational information agents. - Advanced protocols for negotiation and electronic commerce. - Information agents in electronic markets. - Security aspects for information discovery in the Internet.

### Important Dates

- Deadline for Paper Submission February 6, 1998
- Notification of Acceptance/ Rejection March 23, 1998
- Deadline for camera-ready version April 10, 1998

### Proceedings

The workshop proceedings including all accepted papers will be available for all registered participants at the workshop. The proceedings will be published by Springer as a volume in the LNAI series (Lecture Notes in Artificial Intelligence, subseries of LNCS).

### Paper Submission

Authors are invited to submit papers describing both theoretical and practical work in the area of cooperative information agents. Topics of interest include, but are not limited to the ones listed above in the workshop description. Papers which describe ongoing research or provide an excellent surveying work are in particular welcome. All submitted papers will be refereed for quality, correctness, originality and relevance. Papers accepted or under review by other conferences, workshops or journals are not acceptable.

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# Profile



**It's a little known fact that Father Christmas is actually enrolled for a PhD in Information Retrieval. The InformER fearlessly tracked him to ground at his workshop in Greenland and asked him to spill the beans...**

**Name:** Santa Claus

**Contact details:** The University of Greenland, North Pole or any large department store. I am also an electronic myth, having an internet presence at <http://santa.inet.fi/>

**Santa, you would appear to have a somewhat tenuous link to Information Retrieval?**

On the contrary, I've tried my hand at many IR-related areas over the years.

**Such as?**

Well, there's handwriting recognition for a start. Deciphering notes, written in crayon, that have been shoved up chimneys is a significant problem area that hasn't really been tackled in the mainstream literature. And, text categorisation is another, I have to separate the good boys and girls from the bad, based on parents reports. I have also had a stab at information filtering: which teletubby is the one to stock up on, how popular are bath salts this year, etc.

**Anything else?**

Being massively parallel, I do maintain a strong interest in distributed processing.

**Any multimedia interests?**

Only in automatic map recognition. Jumping from a moving sled travelling at the speed of light, and trying to land in a chimney that is approx two foot square, you want to be pretty accurate. Especially if you have a fuller figure, like myself.

**Any truth in the rumours that the elves do all the work in Greenland?**

Look, the original framework was mine. from the start And I completed all the field work: who runs around on Christmas Eve, freezing their pom-poms off, up and down chimneys, not to mention eating all those ruddy mince pies. Me!

Besides everyone collaborates in research.

**You've been active for almost 2000 years, anywhere near completion?**

Part time PhD's take forever

**Especially if you only work one day a year...?**

I have to work to fund myself. The EPSRC funding ran out centuries ago.



**Final question, is this simply a vain attempt by the Editorial team of the InformER to fill an extra page?**

Err, yes. *Ho Ho Ho*

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## 101 uses for a Christmas edition of the InformER

Last minute wrapping paper  
Kindling for a log fire  
Paper chains  
Covering for crackers  
97 topical yet decorative paper hats

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## The INFORMER

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