AI & LAW NEWS

October 1995 International Association for Artificial Intelligence and Law Vol. 3, No. 2

ICAIL Focus: Argumentation and Dialogue

By Trevor Bench-Capon

The Fifth International Conference on Artificial Intelligence and Law was held from May 21 to 24 at the University of Maryland, College Park. This venue marked a welcome, and perhaps overdue, return to the USA, and its proximity to Washington, DC, gave the opportunity for Federal Government to take a look at what is going on in our field. The Adult Education Centre, which housed the conference is an elegant building with lengthy porticoes front and back providing shelter from the burning Southern sun, and provides accommodation, a cafeteria and a restaurant with somewhat mysterious opening times, and a good number of auditoria, of which the Conference was allocated the Volunteer Firefighters Room. What it didn't provide (after 8.00) was a bar, and so those who need to lubricate their conversation were forced to take a taxi to downtown College Park, where the admirable R.J. Bentleys somewhat remedied the deficiency. This lack of an on-site focal point for evening social interaction was the major blemish on the venue.

The conference attracted just over 100 participants, from all over the world. Although few in number, their enthusiasm and assiduous attendance (except when the Ajax was on television) ensured that all sessions were well attended. They were treated to 35 papers, all presented in plenary session, split about evenly between USA, the Netherlands and the rest of the world. The standard was extremely high—I attended every presentation, and found something of interest every single one.

The main theme to emerge this year was the use of argumentation and dialogue. This topic has been around for many years, notably in the work of Edwina Rissland and Kevin Ashley, and had been foreshadowed at the previous conference in Amsterdam by Tom Gordon's excellent work on the Pleadings Game, but at this conference almost a third of the papers touched on the topic in one way or another. Argument is certainly central to law, and perhaps central to reasoning in any domain. It thus represents an opportunity for the

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The *Artificial Intelligence and Law* journal invites submissions of research articles and proposals for Special Issues. For information about submissions please contact one of the editors: Donald Berman (berman@ccs.neu.edu), Carole Hafner (hafner@ccs.neu.edu), or Giovanni Sartor (sartor@cirfid.unibo.it) or send five copies of a completed manuscript to: Editorial Office (ARTI), Kluwer Academic Publishers, P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

ICAIL Heads for Australia in 1997

The sixth International Conference on Artificial Intelligence and Law will be held at the University of Melbourne, Melbourne, Victoria, Australia, in late June or early July 1997. Professor Donald Berman of Northeastern University in Boston will be the Program Chairman, while the conference co-chairs will be John Zeleznikow of La Trobe University and Dan Hunter of the University of Melbourne and Emmanuel College University of Cambridge.

The University of Melbourne was founded circa 1860. It is situated one kilometre north of the downtown area. The neighbourhood is cosmopolitan with a variety of Chinese, Greek, Italian and other restaurants within easy walking distance. Melbourne has won awards as the world's most 'livable' (as opposed to exciting) city. It has excellent parks, beautiful buildings and a good downtown public transport system. The cost of living in Melbourne is much cheaper than in most large European or United States cities.

Admittedly, Melbourne is 24 hours flying time from Europe and the East Coast of the United States. However, airfares are not proportionate to distance travelled. As a benefit for ICAIL-97 attendees we are organising for an Australian travel company to handle travel arrangements. We hope to have discounted airfares with our chosen carrier, probably United Airlines. United is our first choice because it flies into Melbourne, flies to most cities in which prospective ICAIL-97 participants live, offers excellent frequent flyer rewards, offers discount tickets, and has an arrangement with an internal Australian airline - Ansett Airlines. The travel agent will have an internet address, so that most communications can be performed by electronic mail.

In addition to the traditional conference program of papers and tutorials, we hope to also have workshops and poster sessions. The workshops will be held in Sydney and possibly Canberra and/or a North Queensland city. Attendees at ICAIL-97 will be encouraged to visit both the surrounds of Melbourne (such as the penguin colony at Phillip island and the Great Ocean Road) and Australia in general (such as the Great Barrier Reef, tropical rainforest and sacred aboriginal sights).

The organising committee hope to provide funds for graduate students who have papers accepted in the conference to attend the conference.

For further information on organisational aspects of the conference, please contact:

Dr. John Zeleznikow, Collaborative Law and Artificial Intelligence Research Project Database Research Laboratory, Applied Computing Research Institute, La Trobe University Bundoora Victoria, Australia 3083

Phone: 61.3.9479 1003 Fax: 61.3.9479 3060

E-mail: johnz@latcs1.lat.oz.au

Special AILJ Issue on Text-Based Systems

A Special Issue of the *Artificial Intelligence and Law* journal (Nos. 1-2), on Intelligent Legal Text-Based Systems will be mailed to subscribers shortly. It includes the following articles and reviews:

- "Text Retrieval in the Legal World" by Howard Turtle
- "Artificial Intelligence and Legal Discourse: the FlexLaw Legal Text Management System" by J.C. Smith, Daphne Gelbart, Keith MacCrimmon, Bruce Atherton, John McClean, Michelle Shinehoft, and Lincoln Quentana
- "Representing and Using Legal Knowledge in Integrated Decision Support Systems: DataLex WorkStations" by Graham Greenleaf, Andrew Mobray, and Peter Van Dijk
- Review of "The Rhetorical Tradition: Readings from Classical Times to the Present" by Patricial Bizzell and Bruce Herzberg (eds.) and "Logical Tools for Modelling Legal Argument" by Henry Prakken (reviewed by R. P. Loui)
- Review of "A Symbolic and Connectionist Approach to Legal Information Retrieval" by Daniel E. Rose (reviewed by David Skalak)

Other articles scheduled for publication in Volume 3 include:

- "Rationales and Argument Moves" by R. P. Loui and Jeff Norman
- "BankXX: Supporting Legal Arguments through Heuristic Retrieval" by Edwina L. Rissland, David B. Skalak, and M. Timur Friedman
- "Formalizing Multiple Interpretations of Legal Knowledge" by Andreas Hamfelt
- "Explanation-Based Interpretation of Open-Textured Concepts in Logical Models of Legislation" by Stefania

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AI and Law community to make a real contribution to AI in general.

From the papers we could see a number of related, but distinct, uses of argument. First argument is used to resolve conflicts between norms: conflicting norms can be seen as giving rise to opposing arguments, and evaluation of these arguments tells us which conclusion should be preferred. Different approaches to evaluation can be seen in the papers of Prakken and Sartor, and Farley and Freeman. Second, arguments can be seen as providing a framework in which apparently non-monotonic behaviour can be achieved without recourse to a specifically non-monotonic logic. Prakken's paper provides a good introductory exploration of the potential of this idea. Third, argument can be seen as providing a foundation for modelling dialogue which can be used to drive the interaction with the system. Finally, argument can be seen as a way of presenting results to the user, as in the papers of Bench-Capon and Staniford, and Zeleznikow and Stranieri. Most of this work was broadly within the rule-based paradigm, and it seems to have done much to revitalise that approach which

There were other major new ideas elsewhere. In case-based reasoning (CBR), two significant developments stood out. The first, which identifies a crucial problem for case-based approaches, concerns concept drift. While maintenance has long been recognised as a problem for rule based systems, there has been a tendency to think that the addition of new cases will solve the problem in CBR. But the papers by Berman and Hafner, and Rissland and Friedman showed clearly that this is not so. As decisions are made there may be a concept drift which makes old decisions, decided under a different notion of the concept, not only not useful, but positively harmful. Identifying whether concept drift has occurred, why it occurs, and the appropriate action that needs to be taken on the stock of existing cases are questions that future CBR systems will need to address. A second important development of CBR systems was their use not just for classification, but for the basis of other tasks: teaching in the case of Aleven and Ashley, and to kick start an information retrieval system in the paper of Rissland and Daniels. Both these systems were based on HYPO, and given the wealth of analysis and legal know how that is incorporated in that system, it is good to see that it has this potential for reuse.

With regard to the engineering of legal knowledge based systems, the key focus was on the production of an ontology, or terminology, to underpin the system. Papers by Valente and Breuker and by Reimer and Margelisch argued convincingly for this approach.

As well as these three topics I have identified, a wide range of other topics found in AI and Law were represented. Overall, the impression was of a rich and wide ranging field which is continuing to throw up stimulating ideas and avenues for research, which bodes well for the intellectual health of the AI and Law community. Like its predecessors, the proceedings of this conference must be regarded as essential reading for anyone interested in the field.

There was an invited talk from Professor Robert Kowalski on what computer science can learn from law, which helped to remind us that in an inter-disciplinary field, what a discipline can learn from the others is as important as what it can contribute. The other invited talks, from Professor Bruce Buchanan and Professor Thomas Headrick, were given as part of the conference dinner. Buchanan and Headrick, who co-authored a paper on AI and Law 25 years ago, gave some interesting reflections about what has changed and what has stayed the same since the infancy of the subject. Finally, at a Symposium hosted by NCAIR at the Mayflower Hotel in Washington, DC, Professor Peter Martin gave some stimulating speculations on the Future of Legal Information Systems, followed by a response by a distinguished international panel.

Another event worthy of mention was the preconference workshop on the UN Convention for the International Sale of Goods, organised by Hajime Yohsino. This stimulating and civilised affair gave a rare, but welcome, opportunity for a group of researchers to focus on the same piece of legislation and so compare their various approaches.

There was also a tutorial programme on the first day. There were two old favourites: Don Berman's and Kevin Ashley's introduction to AI and Law, and Howard Turtle's Text Retrieval in the Legal World. There were also two new offerings: Trevor Bench-Capon and Marek Sergot on the use of logic for legal knowledge representation; and Andrew Jones and the indefatigable Marek Sergot on Deontic Logic.

Once again the international conference on AI and Law has provided an opportunity for the AI and Law community to meet together, and has focused and stimulated a good deal of thought. I only hope everyone else there enjoyed it as much as I did.

AI and Law Special Issue

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Costantini and Gaetano Lanzarone

- "AI and Law: What about the Future?" by A. Oskamp, M. Tragter, and C. Grondijk
- "Technology Report: Work Product Retrieval Systems in Today's Law Offices" by Marc Lauritsen

COMING EVENTS

JURIX '95

Maastricht, the Netherlands,
November 30 - December 1, 1995

The Dutch Foundation for Legal Knowledge Systems (JURIX) is a forum for research in Law and Artificial Intelligence. The theme for JURIX '95 is the relation between legal knowledge-based systems and telecommunication. For more information, please contact:

JURIX '95, Attn: G.P.J. Span, University of Limburg, Department of Metajuridica, P.O. Box 616, 6200 MD Maastricht, The Netherlands; telephone: +31 43 883020 / 3042 / 3053; Fax: +31 43 256538;
email: jurix.95@metajur.rulimburg.nl; anonymous FTP: jurixrl.metajur.rulimburg.nl/pub/jurix95/;
WWW: http://www.metajur.rulimburg.nl/~jurix95/

DEON '96

Third International Workshop on Deontic Logic in Computer Science
Lisbon, Portugal, 11-13 January, 1996

This third DEON workshop will broaden its emphasis to encourage contributions on the logic of action and its applications, and to encourage participation by linguists. For more information, contact on of the program committee co-chairs:

Jose Carmo, Department of Mathematics, Instituto Superior Tecnico, Av. Rovisco Pais, 1096 Lisboa Codex, Portugal; e-mail: jcc@inesc.pt; telephone: 351-1-841714; fax: 351-91-230243 **or** Mark Brown, Department of Philosophy, Syracuse University, 541 Hall of Languages, Syracuse, NY 13244-1170 USA; e-mail: mabrown@mailbox.syr.edu; telephone: 315-443-2536; fax: 315-443-5675

The First French-American Conference on Law and Artificial Intelligence

Syracuse, New York, USA, 15-16 April 1996

Sponsored by the Universite de Paris 1 (Pantheon-Sorbonne) and Syracuse University College of Law, the conference's theme is "Bridging the Gap between the Buuilders and Users of Legal Expert Systems."

Submission Details: Papers must be written in English. Submit three papers copies, including title page with author's name and contact information. Papers must be 5,000 words or fewer. Initial submissions are due December 10, 1995; notification of acceptance will be January 10, 1996. Final papers will be due February 10, 1996.

Submit papers to: Dr. Daniele Bourcier, IDL (CNRS), Universite de Paris 1, 27, rue Damesme, F - 75013 PARIS; telephone: 33-1-45 83 16 00; Fax: 33-1-45 89 17 32; e-mail: bourcier@IDL.MSH-PARIS.FR **or** Professor Patricia Hassett. Syracuse College of Law, Syracuse, New York 13244 USA; telephone: 1-315-443-2535, Fax: 1-315-443-4141; e-mail: phassett@law.syr.edu; WWW address: http://www.law.syr.edu/events/AIconference/

Fifth National Conference/First European Conference on Law, Computers and Artificial Intelligence

University of Exeter, United Kingdom, 15-16 April 1996

This conference, sponsored by EUCLID and Department of Computer Science, University of Exeter, will focus on the relationship between multimedia and law.

Send papers (hardcopy or electronic postscript) of fewer than 5,000 words and including an abstract of fewer than 200 by November 30, 1995. Authors will be notified of acceptance by January 5, 1996. Final versions of papers will be required by February 9, 1996. (Authors will retain copyrights.)

For more information contact: Indira Mahalingam Carr, Department of Law, Amory Building, University of Exeter, Exeter EX4 4RJ; telephone: 01392 263374; e-mail: I.M.Carr@cen.ex.ac.uk **or** Ajit Narayanan, Department of Computer Science, Old Library, University of Exeter, Exeter EX4 4PT; telephone 01392 264064; fax: 01392 264067; e-mail: ajit@dcs.exeter.ac.uk.; WWW address: http://www.dcs.exeter.ac.uk/~ajit/narayanan/conf5.html

Special Issue on Electronic Commerce in *The Information Society*

(An International Journal)

The Information Society (TIS) journal invites authors to submit papers on the topic of "Electronic Commmerce" for a special issue to be edited by Rolf Wigand, Syracuse University. This special issue intends to embrace a wide array of electronic commerce issues, including information-seeking and distribution, negotiation, trust, risk-taking, customer relationships, buyers finding sellers, sellers finding customers, after-sale service and support. Articles should be 4,000 to 6,000 words long. Send four copies no later than January 15, 1996 to:

Rolf T. Wigand, Ph. D. Guest Editor, TIS School of Information Studies 4-293 Center for Science and Technology Syracuse University Syracuse, NY 13244-4100 USA; telephone: +315-443-5608; Fax: +315-443-5806; e-mail: rwigand@syr.edu

1995 Membership Renewal

It's time again to ask the AI and Law community to support the continuation of IAAIL and the biennial ICAIL Conference by joining or renewing membership in the association. Many of you paid your 1995 dues as part of ICAIL registration, but for those who did not attend ICAIL-95, you must renew your membership to receive volume 3 of the *Artificial Intelligece and Law* journal, as well as future issues of the *AI & Law News*. Please complete and mail the 1995 Membership Form in this issue, or use the electronic version available on the World Wide Web. If you have questions about your membership status, contact the Secretary-Treasurer (hafner@ccs.neu.edu).

Third CISG Workshop

By Kevin Ashley

The Third International Workshop on a Legal Expert System for the CISG took place on May 20, 1995, at the University of Maryland, site of ICAIL-95. The United Nations Convention on Contracts for the International Sale of Goods (CISG) is becoming a worldwide legal standard for international commercial transactions and has been adopted by about 40 nations, including the USA, Germany, UK, Russia, and China.

The inspiration of Professor Hajime Yoshino, Meiji Gakuin University, Tokyo, this series of workshops aims to develop better international cooperative studies in AI and Law by focusing the efforts of many researchers on modeling the CISG. By dealing with the same legal subject, AI researchers, it is hoped, will be better able to compare and discuss each other's methods for legal knowledge representation and natural language understanding.

This workshop highlighted various AI approaches to modeling the CISG and featured invited talks by Professors Harry Flechtner, University of Pittsburgh School of Law; Marek Sergot, Imperial College; and T.J.M. Bench-Capon, University of Liverpool. Professor Flechtner's talk, "Sources of Textual Nonuniformity in the UN Sales Convention: the Several CISG's," gave workshop participants an opportunity to discuss issues of modeling the CISG with a legal scholar and expert on the CISG.

IAAIL Now Has WWW Server

The International Association for AI and Law (IAAIL) now has a World-Wide-Web (WWW) server. The Web address of the IAAIL home page is http://nathan.gmd.de/iaail/iaail.html.

At the moment, the server contains general information about the association, as well as tables of contents of all prior ICAIL conferences and all past issues of the *Artificial Intelligence and Law* journal. An electronic version of the membership form for the IAAIL is also available. This and future issues of the newsletter will also be archived on the server.

We are looking for ideas about how to improve this service. We are interested in making the full papers from all the ICAIL proceedings available online, if this is technically feasible. (ACM has kindly granted us permission, so the legal obstacles have already been overcome.)

Another idea would include links to WWW pages about past and present AI and Law projects. Please send your ideas and contributions to:

Dr. Thomas F. Gordon GMD, FIT-KI; Schloss Birlinghoven 53754 Sankt Augustin, Germany; telephone: (+49 2241) 14-2665; e-mail: thomas.gordon@gmd.de; WWW address: http://nathan.gmd.de/persons/thomas.gordon.html.

Executive Committee News

The biennial IAAIL business meeting and election was May 23, 1995. As of January 1, 1996, the IAAIL Executive Committee will consist of the following people:

Edwina Rissland, University of Massachusetts, USA (president); Anja Oskamp, Vrije Universiteit, Amsterdam, NL (vice-president); Carole Hafner, Northeastern University, USA (secretary-treasurer); Kevin Ashley, University of Pittsburgh, USA (new member); Thomas F. Gordon, GMD, Germany (continuing member); Ejan Mackaay, University of Montreal, Canada (continuing member); Giovanni Sartor, IDG and University of Bologna, Italy (new member).

In addition, Henry Prakken was elected to the Nominating Committee, which also includes Marek Sergot (chair), Andrew Jones, and Thorne McCarty.

International Association for Artificial Intelligence and Law (IAAIL)

President: Edwina Rissland
Department of Computer Science
University of Massachusetts

Vice President: Anja Oskamp
Department of Computing
Vrije Universiteit

Secretary/Treasurer: Carole D. Hafner
College of Computer Science
Northeastern University

AI & Law News is a publication of the International Association for Artificial Intelligence and Law. Correspondence concerning *AI & Law News* should be directed to Karl Branting, IAAIL Newsletter Editor, Department of Computer Science, University of Wyoming, P.O. Box 3682, Laramie, WY 82071, USA; Tel: (307) 766-4258; Fax: (307) 766-4036; Internet: karl@index.uwyo.edu

For information on IAAIL membership, contact Carole Hafner, College of Computer Science, Northeastern University, Boston, MA 02115, Tel: (617) 373-5116, Fax: (617) 373-5121, Internet: hafner@ccs.neu.edu

Layout and design by Susan Branting

International Association for Artificial Intelligence and Law

1995 Membership Form

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☐ Regular Member $60 (includes Vol. 3 of *Artificial Intelligence and Law* journal)

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