

From the journals. . . .

AI & SOCIETY

Vol. 2 No. 2

Articles

Editorial

Massimo Negrotti (Guest Editor)

The socratic and platonic basis of cognitivism

Hubert L. Dreyfus

Artificial intelligence: a contribution to systems theories of sociology

Achille Ardigo

Human-oriented and machine-oriented reasoning: remarks on some problems in the history of automated theorem proving

Furio Di Paolo

Machine intelligence and the long-term future of the human species

Tom Stonier

The strategic computing program at four years: implications and intimations

Chris Hables Gray

Open forum

ITS: 'Invisible tutorial systems'?

David Smith

The reflex tendency rides again! Biological and artificial intelligence

Alberto Oliverio

W(h)ither expert systems? – a view from outside

Ian White

Book reviews

News section

APPLIED ARTIFICIAL INTELLIGENCE

Vol. 1 No. 4

Articles

About the editors

From image sequences to natural language: a first step toward automatic perception and description of motions

J. R. J. Schirra, G. Bosch, C. K. Sung, and G. Zimmermann

Expert systems for business applications

Jay Liebowitz

Communicating knowledge systems: part II – Big talk among small systems

Cristina Sernadas, Helder Coelho, and Graça Gaspar

Models for reasoning under uncertainty

Richard E. Neopolitan

Book reviews

News and announcements

Index to Volume 1

ARTIFICIAL INTELLIGENCE IN ENGINEERING

Vol. 3 No. 1

Articles

An object-based representation method for a manufacturing cell controller

Oded Z. Maimon and Edward L. Fisher

Applications of deep knowledge

Chris Price and Mark Lee

"General & test and rectify" – a plan synthesis tactic for automatic process planning

G. Eshel, M. Barash and T. C. Chang

Coupling of symbolic and numerical computations on a microcomputer (application notes)

Felix S. Wong, Wei-min Dong, and Michael Blanks

Design of a knowledge based system for inventory control, an OPS5 implementation (application notes)

Jinoos Hosseini, Sasan Baharaeen, and Xitong Zheng

Discussion

F. Mistree, S. Z. Kamal, and R. H. Allen

Work in progress series – an overview of contract research at the Turing Institute

Penni Montgomery

Getting together at Boston – news pictures from AI 87 conference

Newsletter

Laurence Leff

Book reviews

Calendar of events

ARTIFICIAL INTELLIGENCE REVIEW

Vol 2 No. 2

Articles

In this issue . . .

An introduction to learning

D. Partridge and K. Paap

Blackboard systems

I. D. Craig

Book reviews

Viewpoint

Professionalism and AI

B. Whitby

COGNITIVE SCIENCE

Vol. 12 No. 1

Articles

Cognitive science news

Dual space search during scientific reasoning

David Klahr and Kevin Dunbar

Force dynamics in language and cognition

Leonard Talmy

FERMI: a flexible expert reasoner with multi-domain inferencing

Jill H. Larkin, Frederick Reif, Jaime Carbonell, and Angela Gugliotta

COMPUTATIONAL INTELLIGENCE

Vol. 3 No. 3

Articles

Pragmatic modeling: toward a robust natural language interface

Sandra Carberry

Equivalent logic programs and symmetric homogeneous forms of logic programs with equality

Kwok Hung Chan

Taking issue/forum: a critique of pure reason

Taking issue: guest editor's introduction

Hector Levesque

Position paper

A critique of pure reason

Drew McDermott

Commentaries

Logicism is alive and well

James F. Allen and Henry A. Kautz

Searching beyond reason

Daniel G. Bobrow and Mark J. Stefik

On the use of logic: reflections on McDermott's critique of pure reason

Kenneth A. Bowen

The myth of the one true logic

Ronald J. Brachman

- Logic and explanation
Eugene Charniak
- In defence of nonmonotonic inference
Johan de Kleer
- Logic, rationality, and rational psychology
Jon Doyle
- Logic versus logicism: a reply to McDermott
Kenneth D. Forbus
- A critique of pure reason
Patrick J. Hayes
- Metacritique of McDermott and the logicist approach
Carl Hewitt
- Models of human inference
Geoffrey E. Hinton
- A reply to Drew McDermott
Jerry R. Hobbs
- On McDermott's first critique
David Israel
- Belief revision without constraints
Robert Kowalski
- Commentary on McDermott
John McCarthy and Vladimir Lifshitz
- A critique critiqued
Robert C. Moore
- Commentary on McDermott
Nils J. Nilsson
- From naive physics to naive Physics
Alex Pentland
- The use of logic
David Poole
- Must logicists become programmers?
Raymond Reiter
- The logicist conception of knowledge is too narrow—but so is McDermott's
Stanley J. Rosenschein
- Remarks on *A critique of pure reason* by Drew McDermott
Lenhart K. Schubert
- Two lessons of logic
Brian Cantwell Smith
- In reply to McDermott
Mark E. Stickel and W. Mabry Tyson
- The bomb in the toilet
Richard Waldinger
- Logic isn't the problem
Terry Winograd
- Response**
(reply (replies (critique (pure reason))))
Drew McDermott
- Note**
Don't blame the tool
W. A. Woods

COMPUTATIONAL INTELLIGENCE

Vol. 3 No. 4

Articles

- The papers of this issue on machine learning: editorial
Larry Rendell

Reviews and analyses

- Similarity-based learning and its extensions
Larry Rendell
- Cohesion methods in inductive learning
Lynn Abbott
- Learning in artificial neural systems
Christopher J. Matheus and William E. Hohensee
- A discussion of a report by Ehud Shapiro
Ranan B. Banerji
- Inductive ambiguity and the limits of artificial intelligence
Satosi Watanabe

New systems and models

- A foundational approach to autonomous knowledge acquisition
James P. Delgrande

- Learning to control a dynamic physical system
Margaret E. Connell and Paul E. Utgoff
- A computational theory of motor learning
Wayne Iba and Pat Langley
- A reasoning-based approach to machine learning
Krish Purswani and Larry Rendell

COMPUTATIONAL INTELLIGENCE

Vol. 4 No. 1

Articles

- Considerations on default logic: an alternative approach
Witold Łukaszewicz
- Logical omniscience, semantics, and models of belief
Robert F. Hadley
- The consistency of syntactical treatments of knowledge
Jim des Rivières and Hector J. Levesque
- Learning and discovery: one system's search for mathematical knowledge
Susan L. Epstein

Taking issue/forum: an inquiry into computer understanding

Introduction

Mary McLeish

Position paper

An inquiry into computer understanding

Peter Cheeseman

Commentaries

- Comments on An inquiry into computer understanding
computer understanding
Romas Aleliunas
- Probability, truth, and logic: reply to Cheeseman
Alan Bundy
- Comments on An inquiry into computer understanding by Peter Cheeseman
N. C. Dalkey
- Comments on An inquiry into computer understanding by Peter Cheeseman
A. P. Dempster
- Comments on An inquiry into computer understanding
D. Dubois and H. Prade
- Reply to Cheeseman's An inquiry into computer understanding
Matthew L. Ginsberg
- Against the unjustified use of probabilities
Russell Greiner
- Comments on Peter Cheeseman's An inquiry into computer understanding
Patrick J. Hayes
- On Cheeseman
David Israel
- Discussion of Cheeseman's An inquiry into computer understanding
Laveen Kanal and Donald Perlis
- Liberty, license, and reason
Henry Kyburg
- Comments on Cheeseman: why plausible reasoning $\neq$ Bayesian inference
Drew McDermott
- In praise of Bayes
D. L. McLeish
- Probability theory versus procedural pessimism
Charles G. Morgan
- Combining logic and probability
Eric Neufeld and David Poole
- On logic and probability
Judea Pearl
- Reply to An inquiry into computer understanding
Larry Rendell
- Intelligent understanding and wishful thinking: the dangers of epistemological alchemy
Enrique H. Ruspini
- Cheeseman: a travesty of truth
Lenhart K. Schubert

Comments on An inquiry into computer understanding by Peter Cheeseman

Glenn Shafer

Comments on An inquiry into computer understanding by Peter Cheeseman

David J. Spiegelhalter

Response to Peter Cheeseman's An inquiry into computer understanding

Ronald R. Yager

An inquiry into computer understanding: a partial dissent

L. A. Zadeh

Response

In defense of An inquiry into computer understanding

Peter Cheeseman

DATA & KNOWLEDGE ENGINEERING

Vol. 2 No. 4

Articles

Coping with indefinite and negative data in deductive databases: a survey

P. Chisholm, G. Chen, D. Ferbrache, P. Thanisch, and M. H. Williams

Dynamic hierarchical control for distributed problem solving

N. V. Findler and J. Gao

A language for simple interactive retrieval from a database system

P. Jones and M. Shave

On interpreting and inferring propositional formulas of data dependencies in a relational database

C.-C. Yang

Announcement and call for papers

Calendar

Author index

DECISION SUPPORT SYSTEMS

Vol. 4 No. 1

Articles

Introduction

S. O. Kimbrough and R. M. Lee

Logic modeling: a tool for management science

S. O. Kimbrough and R. M. Lee

Requirements analysis assisted by logic modeling

P. C. Scott

A logic model for electronic contracting

R. M. Lee

A quantitative approach to logical inference

J. N. Hooker

Spatial imbeddings for linear and for logic structures

R. G. Jeroslow

Logic modeling with partially ordered preferences

G. R. Widmeyer

Defeasible reasoning and decision support systems

D. Nute

Why non-monotonic logic?

S. O. Kimbrough and F. Adams

A conditional logic for defeasible beliefs

M. Belzer and B. Loewer

Announcements

Abstracts

Calendar of Events

EXPERT SYSTEMS

Vol. 5 No. 1

Articles

Support for knowledge acquisition in the knowledge engineer's assistant (KEATS)

Enrico Motta, Marc Eisenstadt, Kent Pitman, and Malcom West

A student's view: Learning in an introductory expert system course

David Warman and Kenneth L. Modesitt

Knowledge harvesting: a practical guide to interviewing

Miranda Davies and Simon Hakiel

Interview

Feature

News

EXPERT SYSTEMS

Vol. 5 No. 2

Articles

Expert systems in finance planning

B. Humpert and P. Holley

Expert systems in business: a British perspective

M. A. Bramer

Hybrid expert simulation system (HESS)

Reuven R. Levary and Chi Y. Lin

Machine learning

A. H. Jackson

Feature

Conference report

Software review

News

IEEE EXPERT

Vol. 3 No. 2

Track feature articles

Improving software productivity: an expert database approach

David Rine

Database support for knowledge-based engineering environments

Gail E. Kaiser, Naser S. Barghouti, Peter H. Feiler, and Robert W. Schwanke

GATES: an airline gate assignment and tracking expert system

Robert P. Brazile and Kathleen M. Swigger

Mentor-1: an expert database system for advising computer science undergraduate students

James L. Frank, Charles A. Duffield, and Craig A. Swearingen

Building knowledge-based systems with procedural languages

C. W. Butler, E. D. Hodil, and G. L. Richardson

Invest: an expert system for financial investments

Stephen Heuer, Ulrich Koch, and Colin Cryer

Expert systems in Japan

Koichi Ishii and Sakae Hayami

IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE

Vol. 10 No. 3

Articles

Introduction to the PAMI special issue on industrial machine vision and computer vision technology - part II

J. L. C. Sanz

Three-dimensional vision structure for robot applications

D. Nitzan

The CLIP7A image processor

T. J. Fountain, K. N. Matthews, and M. J. B. Duff

The AIS-5000 parallel processor

L. A. Schmitt and S. S. Wilson

An automatic circuit diagram reader with loop-structure-based symbol recognition

A. Okazaki, T. Kondo, K. Mori, S. Tsunekawa, and E. Kawamoto

VITS—a vision system for autonomous land vehicle navigation

M. A. Turk, D. G. Morgenthaler, K. D. Gremban, and M. Marra

Vision and navigation for the Carnegie-Mellon navlab
C. Thorpe, M. H. Hebert, T. Kanade, and S. A. Shafer
 Real-time part position sensing
S. J. Gordon and W. P. Seering
Correspondence

INTERNATIONAL JOURNAL OF MAN-MACHINE STUDIES

Vol. 27 No. 4

Articles

Pictorial communication with computers
P. G. Barker, M. Najah, and K. A. Manii
 Program design languages: How much detail should they include?
D. A. Boehm-Davis, S. B. Sheppard, and J. W. Bailey
 PRISM: An algorithm for inducing modular rules
J. Cendrowska
 Context-fixing semantics for instructable robots
C. Crangle and P. Suppes
 Human-computer interaction in the provision of an interpersonal communication mechanism for the nonvocal
M. C. Fairhurst, M. Bonaventura, and C. Stephanidis
 FOCUS as a phenomenological technique for job analysis: its use in multiple paradigm research (MPR)
J. Hassard
 Experiments with a cognitive industrial robot
D. Partridge, V. Johnson, and P. Lopez
 Adapting to the speaker in automatic speech recognition
M. Talbot

INTERNATIONAL JOURNAL OF PATTERN RECOGNITION AND ARTIFICIAL INTELLIGENCE

Vol. 1 Nos. 3 and 4

Articles

A syntactic omni-font character recognition system
G. Wolberg
 Teleseismic discrimination of earthquakes and nuclear detonations with features derived from maximum entropy power spectral estimates
I. Dyrda
 INSIGHT: a dataflow language for programming vision algorithms in a reconfigurable computational network
L. G. Shapiro, R. M. Haralick, and M. J. Goulish
 An optimal region growing algorithm for image segmentation
O. Monga
 Icon purity – toward a formal theory of icons (invited paper)
S.-K. Chang, G. Tortora, Bing Yu, and A. Guercio
 A tool that supports constructing Chinese expert systems
L.-M. Fu

Correspondences

Application of the test theory to pattern recognition
T. Okagaki
 Hough transform references
P. D. Picton
 A note of caution on combining certainties
R. E. Neapolitan

Author Index, Volume 1, 1987

Contents, Volume 1, 1987

INTERNATIONAL JOURNAL OF PATTERN RECOGNITION AND ARTIFICIAL INTELLIGENCE

Vol. 2 No. 1

Articles

Introduction
P. S.-P. Wang
 Generating Chinese responses in a medical question-answering system
P.-Y. Li and M. Evens

A prolog-based Chinese expert system
L. S. Hsu
 A word-based Chinese language understanding system
T.-S. Yao
 A knowledge-based Chinese letter-writer
T. T. Koh
 Recognition of lexical tones for isolated syllables and disyllables in Mandarin speech
W.-J. Wang, J.-C. Lee, Y.-C. Chang, and H.-C. Wang
 A logical approach to movement transformations in Mandarin Chinese
H.-H. Chen, I.-P. Lin, and C.-P. Wu
 Efficient speech recognition techniques for the finals of Mandarin syllables
C.-H. Hwang, Y.-M. Hsu, B.-C. Wang, C.-Y. Tseng, and L.-S. Lee
 A fast Chinese characters accessing technique using Mandarin phonetic transcriptions
C. C. Chang and H. C. Wu
 A system for on-line recognition of Chinese characters
K.-J. Chen, K.-C. Li, and Y.-L. Chang
 Stroke relation coding – a new approach to the recognition of multi-font printed Chinese characters
P.-N. Chen, Y.-S. Chen, and W.-H. Hsu
 Knowledge pattern representation of Chinese characters
P. S.-P. Wang
 A Kanji recognition method which detects writing errors
T. Morishita, M. Ooura, and Y. Ishii

JOURNAL OF AUTOMATED REASONING

Vol. 4 No. 1

Articles

Model minimization – an alternative to circumscription
Jaakko Hintikka
 Meta-level inference two applications
Alan Bundy and Leon Sterling
 Designing deductive databases
Paul Helman and Robert Veroff
 HARP: a tableau-based theorem prover
F. Oppacher and E. Suen
 The problem of finding a strategy to control binary paramodulation
Larry Wos

Books received

Announcements

JOURNAL OF JAPANESE SOCIETY FOR ARTIFICIAL INTELLIGENCE

Vol. 2 No. 4

Articles

(Technical Paper)

Inference method of deductive database based on relational database
A. Yoshida, K. Mineno, and H. Tanaka
 Compiler and extended clause indexing in inheritance hierarchy prolog
K. Akama
 Qualitative analysis of discontinuous changes in simple pulse circuits
T. Nishida and S. Doshita
 A logical model of updates of knowledge bases
K. Toyama and Y. Inagaki

Short Note

Solving Schubert's steamroller by guarded resolution
S. Dan, T. Kitahashi, and Y. Tezuka

Vol. 3 No. 1

Articles

Event-sequence method for qualitative circuit analysis
S. Toyama and A. Yonezawa
 Thai syntax analysis based on GPSG
Vises Vorasucha and Hozumi Tanaka

Extended ATMS for knowledge with uncertainty

E. Dong and H. Nakagawa

An enhanced knowledge representation and concept learning mechanism in hypothesis-based reasoning system

T. Matsuda and M. Ishizuka

Short Note

An English-Indonesian computer aided translation system

Darmawan Sukmadjaja and Masamichi Simura

KNOWLEDGE-BASED SYSTEMS

Vol. 1 No. 2

Articles

Knowledge engineering in design

V. Akman, P. ten Hagen, J. Rogier, and P. Veerkamp

Heuristic search and tree systems inference for structural pattern recognition

C. A. Mackenzie

Novel approach to a rule-based general purpose program translator using paramodulation

Y. Takefuji and M. Dowell

Recursive modal unification for reasoning with knowledge using a graph representation

M. C. Chan, B. J. Garner, and E. Tsui

Perceptual approach to picture interpretation

S. A. R. Scrivener and A. Schappo

Probability problems in knowledge acquisition for expert systems

J. R. Doyle

Books

Recent publications received and reviewed

R and D review

Announcements from research and development

Products

New releases from the industry

Literature

Recent papers on the research, development and application of KBS

Calendar

Conferences, courses, exhibitions, events

Vol. 1 No. 3

Special issue: Alvey IKBS projects

Editorial

Socrates: a flexible toolkit for building logic-based expert systems

R. Corlett, N. Davies, R. Khan, H. Reichgelt, and F. van Harmelen

Knowledge-rich solutions to the binding problem: a simulation of some human computational mechanisms

K. Stenning and J. Levy

Expert systems for planning and controlling physical networks in the water industry

K. Ahmad, P. R. Holmes-Higgin, C. P. W. Hornsby, and A. J. Langdon

Technical overview of the intelligent file store

S. H. Lavington

GLIMPSE: a knowledge-based front end for statistical analysis

D. E. Wolstenholme, C. M. O'Brien, and J. A. Nelder

Knowledge-based approach to requirements engineering using method and domain knowledge

P. Loucopoulos and R. Champion

Prolog and deductive databases

M. H. Williams, G. Chen, D. Ferbrache, P. Massey, S. Salvini, H. Taylor, and K. F. Wong

Calendar

Conferences, courses, exhibitions, events

THE JOURNAL OF LOGIC PROGRAMMING

Vol. 4 No. 4

Articles

Call for papers

Logic programming with equations

Maarten H. van Emden and Keitaro Yukawa

Negation in logic programming

Kenneth Kunen

Operational and denotational semantics of prolog

Bijan Arbab and Daniel M. Berry

Integrity constraint checking in stratified databases

J. W. Lloyd, E. A. Sonenberg, and R. W. Topor

Compiling associativity into logic programs

D. R. Brough and C. J. Hogger

Title index to volume 4

Author index to volume 4

Volume contents to volume 4

THE JOURNAL OF LOGIC PROGRAMMING

Vol. 5 No. 1

Articles

Clausal intuitionistic logic. I. Fixed-point semantics

L. Thorne McCarty

Perspectives in deductive databases

Jack Minker

Denotational and operational semantics for prolog

Saumya K. Debray and Prateek Mishra

Call for papers