

drs. A.J. de Bruin (Jos)

Education

Master Degree Psychology, University of Amsterdam, 1982, cum laude.

Specialization Cognitive Science/Artificial Intelligence, topics: child acquisition of word meanings by very young children (with Prof. Paul Harris, now at Harvard), spreading activation (connectionist) models of word sense disambiguation during sentence parsing.

Preliminary education: Gymnasium Beta, Franciscus College, Rotterdam.

Employment history

- 2008-(2011) PhD student, Institute for Logic, Language and Computation
- 1998 - .. [Artificial Design BV](#) (owner). Software development, teaching, consultancy.
- 2002 - .. University of Amsterdam, freelance teaching and research.
- 1999 - 2004 Free University Amsterdam, freelance teaching.
- 1998 - 1999 CMC, Amsterdam, information manager.
- 1991 - 1998 RIVM, Dutch National Institute of Public Health and Environmental Protection, Bilthoven. Member management team IT department.
- 1987 - 1991 Co-founder and director of Cartesian Products BV.
- 1984 - 1987 Scientist, AI Department of BBN Laboratories Inc., Cambridge, USA.
- 1982 - 1984 Assistant Professor for Artificial Intelligence at the University of Amsterdam.
- 1976 - 1982 Research Assistant, University of Amsterdam, part-time (0.5) at various institutes: Research Institute for Applied Psychology, Psychology, Accountancy.

Research interests

- Language processing* Connectionist language models, data-oriented parsing, language acquisition.
- Artificial Intelligence* Knowledge representation, machine learning.
- Visualization* Perception of visual structures (gestalts), visual grammars and styles, automatic generation of visual designs.

Software development

Project	Client/Users
Design generators for automatic document design	Prem sela, KPN, Oce, NS, Dedato
Vase generators for exhibitions in Vleeshal, Middelburg, 2004, and ABC Architectuurcentrum, Haarlem, 2006.	Prem sela, Foundation for Dutch Design, Amsterdam
Penthouse design generator for AutoCad	Archipel Ontwerpers, The Hague
Data analysis and visualization for groupware	CMC Consultancy, Amsterdam
M, an integrated package for dynamic simulation models and data visualization	RIVM, Maastricht University, Erasmus University, CPB, CIAT Columbia, SEI Stockholm, NEPA China,

	PIK Potsdam and other research institutes
System for analysis of pigment experiments	AKZO Sikkens, Sassenheim
Generation of nutrition schedules for athletes	Nutricia, Zoetermeer
Valve selector	Keystone Valve Europe, Breda
Statistical Process Control	PLM Glass Industries, Breda
Analysis of plant breeding experiments	Zaadunie, Enkhuizen
Configuration system for network components	BBN, Cambridge, USA
Natural language database interface	US Navy, Pacific Fleet, Hawaii
Knowledge-based tutor for radar maintenance	U.S. Army Defense Artillery School, Fort Bliss, Texas
Semantic interpretation of relational nouns	BBN, Cambridge, USA
Theorem prover	University of Amsterdam
LOGO interpreter	University of Amsterdam

Teaching

2006-2008	<i>Research Methods</i> , Informatics, University of Amsterdam
2005	<i>Information visualization</i> , Informatics, University of Amsterdam
2008	<i>Conceptual Modeling (UML)</i> , Informatics, University of Amsterdam
2005, 2007	<i>Database applications</i> , Informatics, University of Amsterdam
2005	<i>Web applications</i> , Informatics, University of Amsterdam
2003, 2004	<i>Perception and image analysis</i> - Faculty of Arts, Free University Amsterdam
2003, 2004	<i>Multimedia Information</i> , Informatics, Faculty of Science, University of Amsterdam
2001-2002	<i>Representation and Usability/Task analysis</i> - two new BA courses, Multimedia and Culture, Computer Science, Free University Amsterdam
	<i>Algorithmic Art and AI</i> , Humanities, New Media, University of Amsterdam, 2001
1982 - 1984	Assistant Professor for Artificial Intelligence at the University of Amsterdam: <i>Introduction AI, Programming courses: Prolog and Pascal</i>
1976 - 1982	Research Assistant, University of Amsterdam: <i>Statistics and experimental design, Introduction SPSS, Programming in LISP</i>

Languages

Natural: Dutch, English, German, French, Portuguese

Programming: Java, Visual Basic, PHP, Haskell, Lisp, Prolog, Pascal, C, SQL, UML, XML, HTML

Publications

Automatic style generation (with R. Scha). Paper presented at Design Research in the Netherlands, 2005.

- Algorithmix # 6 (Swarte Wech) (with R. Scha), In: Cor Wetting (ed.): *Passages*. Leeuwarden: Sprezzatura, 2005.
- A series of three articles in the *AutomatiseringsGids*, on Algorithmic Art, Algorithmic Design and Algorithmic Music, (with R. Scha), spring 2003.
- A Republic of Information Designers, (with R. Scha), *Vision Plus 4*, Carnegie Mellon University, Pittsburgh, 1998.
- The visual grammar of information graphics, (with Engelhardt e.a), *Conference on Artificial Intelligence and Design*, Stanford University, 1996.
- M - A visual simulation tool, in: *Simulation in the Medical Sciences*, The Society for Computer Simulation, San Diego, 1996, 181-186.
- The interpretation of relational nouns (with R. Scha). In: *Proc. ACL 1988*, Buffalo NY.
- A system for automatic rule induction (with T. Romeyn). In *Proc. NAIC-88*, Amsterdam, 1988.
- Machine learning and expert systems (with T. Romeyn), *Kennissystemen*, 2, 1, 1988.
- MACH-III, a training system for radar maintenance (with D. Massey and B. Roberts). In (J. Psotka, L. Massey and S. Mutter, eds.) *Intelligent Tutoring Systems: Lessons Learned*, Erlbaum, 1988.
- Expert Systems (with B. Wielinga), *Intermediair*, 5, 1984; also in *Kennis, mens en computer* (Kempen and Sprangers, eds.), Lisse, Swets & Zeitlinger, 1984.
- Parallele Systemen in de AI. In *Psychologie in Nederland* (P. Drenth, W. Koops, J. Orbeke and R. Takens, eds.), Lisse, Swets & Zeitlinger, 1983, pp. 146-160.
- Flexibiliteit in natuurlijke taalverwerking (with B. Wielinga), *Tijdschrift voor taal- en tekstwetenschap*, 1982, Jrg. 1, nr. 3.
- Symbolic Evaluation of LISP Functions with Side Effects for Verification (with D. de Champeaux). In: *Proceedings of the Seventh Int'l Joint Conf. on AI*, Vancouver, British Columbia, 1981.
- As CD-ROM (see also: www.m.rivm.nl):
- FRED, a Framework for Research on Environment and Development, RIVM, 1998.
- Targets 1.0, Electronic Series on Integrated Assessment Modeling, Baltzer, 1998.
- The IMAGE User Support System, RIVM, 1998.

Exhibitions

- *Tussen Prefab en Artificial*, ABC Architectuurcentrum, Haarlem, Sep/Oct 2006, with ArchipelOntwerpers.
- *Passages*. Bos van Ypeij (Park Vijversburg), Tytsjerk, The Netherlands. Exhibition curated by Cor Wetting with a multi-media-installation by Jos de Bruin and Remko Scha. Also: Felix Hess, Vincent Icke, Wim T. Schippers, Kenneth Snelson and others.
- *Alternate*, Vleeshal, Middelburg, April/May 2004 (vase design generator)
- *Mu*, De Witte Dame, Eindhoven, fall 2002
- *TENT*, Rotterdam, spring 2000
- *Consortium*, Amsterdam, fall 2000
- *Nomadisch Paviljoen*, multimedia exhibit of Architecture and Artificial Art, spring/summer 1998, Town Hall, The Hague