Preface

Diagrams 2000 is dedicated to the memory of Jon Barwise.

Diagrams 2000 was the first event in a new interdisciplinary conference series on the Theory and Application of Diagrams. It was held at the University of Edinburgh, Scotland, September 1-3, 2000.

Driven by the pervasiveness of diagrams in human communication and by the increasing availability of graphical environments in computerized work, the study of diagrammatic notations is emerging as a research field in its own right. This development has simultaneously taken place in several scientific disciplines, including, amongst others: cognitive science, artificial intelligence, and computer science. Consequently, a number of different workshop series on this topic have been successfully organized during the last few years: Thinking with Diagrams, Theory of Visual Languages, Reasoning with Diagrammatic Representations, and Formalizing Reasoning with Visual and Diagrammatic Representations.

Diagrams are simultaneously complex cognitive phenonema and sophisticated computational artifacts. So, to be successful and relevant the study of diagrams must as a whole be interdisciplinary in nature. Thus, the workshop series mentioned above decided to merge into Diagrams 2000, as the single interdisciplinary conference for this exciting new field. It is intended that Diagrams 2000 should become the premier international conference series in this area and provide a forum with sufficient breadth of scope to encompass researchers from all academic areas who are studying the nature of diagrammatic representations and their use by humans and in machines.

The call for papers and posters for Diagrams 2000 attracted submissions from a very wide variety of disciplines and departments, including: architecture, art and design, artificial intelligence, cognitive science, computer science, education, engineering, human computer interaction, information science, management, mathematics, medicine, philosophy, psychology, speech pathology, textile technology. Submissions were received from countries all over the world, including: Austria, Australia, Denmark, Canada, Finland, France, Germany, Japan, Israel, Italy, New Zealand, The Netherlands, Poland, The USA, Spain, Switzerland, and The UK.

The standard of the accepted papers was high, with an acceptance rate of about 30%. The papers covered a wide variety of topics and for the sake of imposing some organizational structure on the conference, the presented papers were classified into the following themes: logic and diagrams; theoretical concerns about diagrams; cognition and diagrams; human communication and diagrams; diagrammatic reasoning and proof systems; diagrams to support the development of software systems, and systems to support the development of diagrams. Cutting across these themes was a substantial variety of different types of diagrams. These ranged from classes of diagrams that are ubiquitous in this area of research (such as node-link formats, Euler/Venn diagrams, bar charts, design

layouts) through to more specialized forms of diagrams for particular purposes (e.g., representations of time, Celtic Knots).

In addition to the 31 technical paper presentations, in eight sessions, Diagrams 2000 included: an invited talk by Alan MacEachren (Representations to mediate geospatial collaborative reasoning: A cognitive-semiotic perspective); a talk in memory of Jon Barwise given by Keith Stenning; a tutorial by Kim Marriott on formal approaches to visual languages; a tutorial on cognitive approaches to diagrams co-presented by David Gooding, Hermi Schijf, and Jiajie Zhang; a session at which ten posters were presented.

The program co-chairs would like to thank all the members of the program committee for all their efforts towards making Diagrams 2000 a success. We are particularly grateful to Jo Calder, Alan Blackwell, Bernd Meyer, and Nigel Birch.

September 2000   Peter Cheng, Michael Anderson, Volker Haarslev

Organization

Diagrams 2000 was:

Program Chairs

Michael Anderson   University of Hartford (USA)
Peter Cheng   University of Nottingham (UK)
Volker Haarslev   University of Hamburg (Germany)

Program Committee

Tom Addis   University of Portmouth (UK)
Gerard Allwein   Indiana University (USA)
Nigel Birch   EPSRC (UK)
B. Chandrasekaran   Ohio State University (USA)
Maria Francesca Costabile   Università di Bari (Italy)
Gennaro Costagliola   Università di Salerno (Italy)
Ellen Yi-Luen Do   University of Washington (USA)
Max Egenhofer   University of Maine (USA)
George Furnas   University of Michigan (USA)
Janice Glasgow   Queens University (Canada)
David Gooding   University of Bath (UK)
Mark D. Gross   University of Washington (USA)
Pat Hayes   University of West Florida (USA)
Mary Hegarty   UCSB (USA)
Kathleen Hornsby   University of Maine (USA)
Mateja Jamnik   University of Birmingham (UK)
Stefano Levialdi   Università di Roma (Italy)
Robert Lindsay   University of Michigan (USA)
Ric Lowe   Curtin University of Technology (Australia)
Robert McCartney   University of Connecticut (USA)
N. Hari Narayanan   Auburn University (USA)
David Barker-Plummer   Stanford University (USA)
Clive Richards   Coventry University (UK)
Eric Saund   Xerox PARC (USA)
Barbara Tversky   Stanford University (USA)

Additional Referees

G. M. Bierman	T. Jansen	M. Wessel
P. Bottoni	M. Matera	H. Zeevat
M. Erwig	G. Polese	
F. Ferrucci	A. Shimjima	

Administration

Local Organization:	Jo Calder (University of Edinburgh)
	Corin Gurr (University of Edinburgh)
Publicity:	Bernd Meyer (Monash University)
Web Site:	Alan Blackwell (University of Cambridge)
Series Liaison:	Kim Marriott (Monash University)
	Patrick Olivier (University of York)