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Nota di contenuto	Invited Talk -- What Does It Mean for a Computer to Do Diagrammatic Reasoning? A Functional Characterization of Diagrammatic Reasoning and Its Implications -- Understanding and Communicating with Diagrams -- Movement Conceptualizations in Graphical Communication -- Toward a Model of Knowledge-Based Graph Comprehension -- Learning on Paper: Diagrams and Discovery in Game Playing -- Diagrams in Mathematics -- Using Animation in Diagrammatic Theorem Proving -- Generating Euler Diagrams -- Corresponding Regions in Euler Diagrams -- Computational Aspects of

Diagrammatic Representation and Reasoning -- CDEG: Computerized Diagrammatic Euclidean Geometry -- Compositional Semantics for Diagrams Using Constrained Objects -- Retrieving 2-D Line Drawings by Example -- A System That Supports Using Student-Drawn Diagrams to Assess Comprehension of Mathematical Formulas -- An Environment for Conducting and Analysing Graphical Communication Experiments -- Grammar-Based Layout for a Visual Programming Language Generation System -- Heterogeneous Data Querying in a Diagrammatic Information System -- Visualization vs. Specification in Diagrammatic Notations: A Case Study with the UML -- Logic and Diagrams -- The Inferential-Expressive Trade-Off: A Case Study of Tabular Representations -- Modeling Heterogeneous Systems -- On Diagram Tokens and Types -- Diagrams in Human-Computer Interaction -- Effects of Navigation and Position on Task When Presenting Diagrams to Blind People uUsing Sound -- A Fuzzy Visual Query Language for a Domain-Specific Web Search Engine -- Diagrammatic Integration of Abstract Operations into Software Work Contexts -- Tracing the Processes of Diagrammatic Reasoning -- Extracting Explicit and Implicit Information from Complex Visualizations -- Visual Attention and Representation Switching During Java Program Debugging: A Study Using the Restricted Focus Viewer -- Guiding Attention Produces Inferences in Diagram-Based Problem Solving -- Visualizing Information with Diagrams -- ViCo: A Metric for the Complexity of Information Visualizations -- Opening the Information Bottleneck in Complex Scheduling Problems with a Novel Representation: STARK Diagrams -- Using Brightness and Saturation to Visualize Belief and Uncertainty -- Diagrams in Software Engineering -- Structure, Abstraction, and Direct Manipulation in Diagram Editors -- On the Definition of Visual Languages and Their Editors -- Describing the Syntax and Semantics of UML Statecharts in a Heterogeneous Modelling Environment -- Cognitive Aspects of Diagrammatic Representation and Reasoning -- The Learnability of Diagram Semantics -- Understanding Simultaneity and Causality in Static Diagrams versus Animation -- External Representations Contribute to the Dynamic Construction of Ideas -- One Small Step for a Diagram, One Giant Leap for Meaning -- Understanding Static and Dynamic Visualizations -- Teaching Science Teachers Electricity Using AVOW Diagrams -- Conceptual Diagrams: Representing Ideas in Design -- A Survey of Drawing in Cross-Linguistic Communication -- Invited Talk -- Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces.

Sommario/riassunto

This book constitutes the refereed proceedings of the Second International Conference Diagrams 2002, held in Callaway Gardens, Georgia, USA, in April 2002. The 21 revised full papers and 19 posters presented were carefully reviewed and selected from 77 submissions. The papers are organized in topical sections on understanding and communicating with diagrams, diagrams in mathematics, computational aspects of diagrammatic representation and reasoning, logic and diagrams, diagrams in human-computer interaction, tracing the process of diagrammatic reasoning, visualizing information with diagrams, diagrams and software engineering, and cognitive aspects.
