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	Nota di contenuto	Invited Talks -- Diagrams in the Mind: Visual or Spatial? -- Understanding Diagrams, and More: The Computer's View -- Tutorials -- Diagrams: A Perspective from Logic -- Drawing Euler Diagrams for Information Visualization -- Graduate Student Symposium -- The

Graduate Student Symposium of Diagrams 2010 -- Euler and Venn Diagrams -- The Efficacy of Euler and Venn Diagrams in Deductive Reasoning: Empirical Findings -- Drawing Euler Diagrams with Circles -- Coloured Euler Diagrams: A Tool for Visualizing Dynamic Systems and Structured Information -- Drawing Area-Proportional Venn-3 Diagrams with Convex Polygons -- Formal Aspects of Diagrams -- Fragments of Spider Diagrams of Order and Their Relative Expressiveness -- A Calculus for Graphs with Complement -- Two Types of Diagrammatic Inference Systems: Natural Deduction Style and Resolution Style -- Reasoning with Diagrams -- Alternative Strategies for Spatial Reasoning with Diagrams -- Relating Two Image-Based Diagrammatic Reasoning Architectures -- A Spatial Search Framework for Executing Perceptions and Actions in Diagrammatic Reasoning -- Toward a Physics of Equations -- Interacting with Diagrams -- Usability of Accessible Bar Charts -- Diagram Editing on Interactive Displays Using Multi-touch and Pen Gestures -- Constructing Diagrams -- The Effects of Perception of Efficacy and Diagram Construction Skills on Students' Spontaneous Use of Diagrams When Solving Math Word Problems -- Hi-tree Layout Using Quadratic Programming -- Understanding Diagrams and Text -- Recognizing the Intended Message of Line Graphs -- Mapping Descriptive Models of Graph Comprehension into Requirements for a Computational Architecture: Need for Supporting Imagery Operations -- Getting a Clue: Gist Extraction from Scenes and Causal Systems -- Attention Direction in Staticand Animated Diagrams -- Tactile Diagrams: Worth Ten Thousand Words? -- The Effects of Signals on Learning from Text and Diagrams: How Looking at Diagrams Earlier and More Frequently Improves Understanding -- An Attention Based Theory to Explore Affordances of Textual and Diagrammatic Proofs -- Posters -- Effects of Graph Type in the Comprehension of Cyclic Events -- VCL, a Visual Language for Modelling Software Systems Formally -- Visualizing Student Game Design Project Similarities -- Are Pixel Graphs Are Better at Representing Information than Pie Graphs? -- Thinking with Words and Sketches – Analyzing Multi-modal Design Transcripts Along Verbal and Diagrammatic Data -- How Diagram Interaction Supports Learning: Evidence from Think Alouds during Intelligent Tutoring -- Creating a Second Order Diagrammatic Logic -- An Attention Based Theory to Explore the Cognitive Affordances of Diagrams Relative to Text -- How Does Text Affect the Processing of Diagrams in Multimedia Learning? -- An Experiment to Evaluate Constraint Diagrams with Novice Users -- "Graph-as-Picture" Misconceptions in Young Students -- What Students Include in Hand-Drawn Diagrams to Explain Seasonal Temperature Variation -- Diagrammatic Specification of Mobile Real-Time Systems -- Manipulatable Models for Investigating Processing of Dynamic Diagrams -- Can Text Content Influence the Effectiveness of Diagrams? -- Attending to and Maintaining Hierarchical Objects in Graphics Comprehension -- Modelling English Spatial Preposition Detectors -- Diagram Interpretation and e-Learning Systems -- An Examination of Cleveland and McGill's Hierarchy of Graphical Elements -- Does Manipulating Molecular Models Promote Representation Translation of Diagrams in Chemistry? -- Heterogeneous Reasoning in Real Arithmetic -- "TheMolecules are Inside the Atoms": Students' Personal External Representations of Matter -- Discovering Perceptions of Personal Social Networks through Diagrams.

Sommario/riassunto

The 6th International Conference on the Theory and Application of Diagrams – Diagrams 2010 – was held in Portland, USA in August 2010. Diagrams is an international and interdisciplinary conference series, which continues to present the very best work in all aspects of research

on the theory and application of diagrams. Some key questions that researchers are tackling concern gaining an insight into how diagrams are used, how they are rep- sented, which types are available and when it is appropriate to use them. The use of diagrammatic notations is studied for a variety of purposes including communication, cognition, creative thought, computation and problem-solving. Clearly, this must be pursued as an interdisciplinary endeavor, and Diagrams is the only conference series that provides such a united forum for all areas that are concerned with the study of diagrams: for example, architecture, arti?cial intelligence, cartography, cognitive science, computer science, education, graphic design, history of science, human–computer interaction, linguistics, logic, ma- ematics, philosophy, psychology, and software modelling. The articles in this volume re?ect this variety and interdisciplinarity of the ?eld.