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   Nota di contenuto   Informatics, a Challenging Topic -- The Challenging Face of Informatics Education in Poland -- Bebras International Contest on Informatics and Computer Literacy: Criteria for Good Tasks -- From Top Coders to Top IT Professionals -- Didactical Merits of Robot-Based Instruction -- Integrating Mathematical Analysis of Sensors and Motion in a Mobile Robotics Course -- Visualization of Program Behaviors: Physical Robots Versus Robot Simulators -- Development of an Educational System to Control Robots for All Students -- Proposal for Teaching Manufacturing and Control Programming Using Autonomous Mobile Robots with an Arm -- Transfer of Knowledge and Concept Formation -- Design Disciplines and Non-specific Transfer -- Like a (School of) Fish in Water (or ICT-Enhanced Skills in Action) -- Duality Reconstruction – Teaching Digital Artifacts from a Socio-technical Perspective -- What's My Challenge? The Forgotten Part of Problem Solving in Computer Science

Education -- Bringing Abstract Concepts Alive. How to Base Learning Success on the Principles of Playing, Curiosity and In-Classroom Differentiation -- Working with Objects and Programming -- Analysis of Learning Objectives in Object Oriented Programming -- To Have or to Be? Possessing Data Versus Being in a State – Two Different Intuitive Concepts Used in Informatics -- Understanding Object Oriented Programming Concepts in an Advanced Programming Course -- Spiral Teaching of Programming to 10–11 Year-Old Pupils After Passed First Training (Based on the Language C++) -- Multi-facet Problem Comprehension: Utilizing an Algorithmic Idea in Different Contexts -- VIPER, a Student-Friendly Visual Interpreter of Pascal -- Analysis of Students' Developed Programs at the Maturity Exams in Information Technologies -- Strategies for Writing Textbooksand Teacher Education -- Creating and Testing Textbooks for Secondary Schools -- Informatics as a Contribution to the Modern Constructivist Education -- New Methodology of Information Education with "Computer Science Unplugged" -- Disciplinary-Pedagogical Teacher Preparation for Pre-service Computer Science Teachers: Rational and Implementation -- Algorithm – Fundamental Concept in Preparing Informatics Teachers -- Computer Science Teacher Training at the University of Groningen -- Distance Learning Course for Training Teachers' ICT Competence -- National and International perspectives on ICT Education -- Teaching Information Technology and Elements of Informatics in Lower Secondary Schools: Curricula, Didactic Provision and Implementation -- Spreadsheet Knowledge and Skills of French Secondary School Students -- Harmonization of Informatics Education – Science Fiction or Prospective Reality? -- E-Learning -- Development of E-Learning Design Criteria with Secure Realization Concepts -- On the Technological Aspects of Generative Learning Object Development -- Informational Technologies for Further Education of Latvian Province Teachers of Informatics.

Sommario/riassunto	Informatics Education – Supporting Computational Thinking contains papers presented at the Third International Conference on Informatics in Secondary Schools – Evolution and Perspective, ISSEP 2008, held in July 2008 in Torun, Poland. As with the proceedings of the two previous ISSEP conferences (2005 in Klag- furt, Austria, and 2006 in Vilnius, Lithuania), the papers presented in this volume address issues of informatics education transcending national boundaries and, the- fore, transcending differences in the various national legislation and organization of the educational system. Observing these issues, one might notice a trend. The p- ceedings of the First ISSEP were termed From Computer Literacy to Informatics F- damentals [1]. There, broad room was given to general education in ICT. The ECDL, the European Computer Driving License, propagated since the late 1990s, had pe- trated school at this time already on a broad scale and teachers, parents, as well as pupils were rather happy with this situation. Teachers had material that had a clear scope, was relatively easy to teach, and especially easy to examine. Parents had the assurance that their children learn "modern and relevant stuff," and for kids the c- puter was sufficiently modern so that anything that had to do with computers was c- sidered to be attractive. Moreover, the difficulties of programming marking the early days of informatics education in school seemed no longer relevant. Some colleagues had a more distant vision though.