This book follows from the International Conference on Intelligent Tutoring Systems (ITS-88) held June 1-3, 1988 in Montréal, Canada. It contains a selection from the best papers of ITS-88. The authors who have contributed have improved and extended the paper they presented at the conference.

The goal of the conference was to bring together specialists from the fields of artificial intelligence and education, two strong and convergent domains of research which need, more and more, collaborative works. Both disciplines tackle fundamental and ambitious goals and the expertise developed by the two research communities is proving to be complementary and fundamental in contributing to the study of a very complex subject: mental behavior of the human being.

The conference was launched to encourage a close cooperation between the two research communities and to focus on high-level concepts and ideas in order to serve as a strong reference basis for future research. We were also curious to see the state of development of ITS in the world. The response from the international community largely met our expectations: We received 142 communications from 16 countries. To insure a high level at the conference a strong international committee (from eight countries) was set up by Marlene Jones (Alberta Research Council) and Gregor Bochmann (University of Montréal). All contributed papers were assigned to several members of the Program Committee for evaluation. In most of the cases, the papers were reviewed by five referees. In addition, a large number of high-level speakers have been invited to present the State of the Art in different research areas: Jacques Arsac, Patrick Suppes, John Seely Brown, Philip Winne, Elliot Soloway, John Self, Jeffrey Bonar, Beverly Woolf, and Masoud Yazdani. Two panels conducted by Stuart Macmillan and Gordon McCalla including Albert Corbett, Stellan Ohlsson, Elliot Soloway, Patrick Suppes, Beverly Woolf, Marlene Jones, William Clancey, Gerhard Fisher, and David Littman led to stimulating discussions. The success of the conference was greatly due to the contributions of the speakers and the panelists.

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