

## Preface

ITS 2000 is the fifth international conference on Intelligent Tutoring Systems. The preceding conferences were organized in Montreal in 1988, 1992, and 1996. These conferences were so strongly supported by the international community that it was decided to hold them every two years. ITS'98 was organized by Carol Redfield and Valerie Shute and held in San Antonio, Texas.

The program committee included members from 13 countries. They received **140 papers** (110 full papers and 30 young researchers papers) from 21 countries. As with any international conference whose proceedings serve as a reference for the field, the program committee faced the demanding task of selecting papers from a particularly high quality set of submissions.

This proceedings volume contains **61 papers** selected by the program committee from the 110 papers submitted. They were presented at the conference, along with **six invited lectures** from well-known speakers. The papers cover a wide range of subjects including architectures for ITS, teaching and learning strategies, authoring systems, learning environments, instructional designs, cognitive approaches, student modeling, distributed learning environments, evaluation of instructional systems, cooperative systems, Web-based training systems, intelligent agents, agent-based tutoring systems, intelligent multimedia and hypermedia systems, interface design, and intelligent distance learning. The conference itself was preceded by **seven workshops** on modeling human teaching tactics and strategies, adaptive and intelligent Web-based education systems, applying machine learning to ITS/design construction, collaborative discovery learning in the context of simulations, case-based reasoning in intelligent training systems, learning algebra with the computer (a transdisciplinary workshop), and advanced instructional design for complex safety critical and emergency training. **Three tutorials** highlighted important domains in ITS: ontological engineering and its implication for AIED research, adaptive Web-based educational systems, and animated pedagogical agents.. Finally, **25 papers** from the Young Researcher Track were selected, and **22 posters**.

We would like to thank all the members of the program committee who reviewed conscientiously all the papers which were sent so as to obtain a distributed and equilibrated point of view. We also thank the external reviewers who added their effort to complement the evaluations. A subset of the program committee met in February in Montreal to set up the final list of accepted papers.

The conference was scientifically supported by several prestigious associations. This represents an acknowledgment of the high level of the conference which is now well established. We thank the **American Association for Artificial Intelligence (AAAI)**, the **Association for Computing Machinery (ACM)**, and the special interest groups **SIGART**, **SIGCUE**, and **SIGCHI**, the **IFIP TC3 Committee**, the **International Artificial Intelligence in Education (AIED) Society**, and the **Learning Technology Task Force (LTTF)** from **IEEE Computer Society**. They ensured a wide distribution of information regarding the announcement of the conference.

We would like to thank the Université de Montréal and the Université du Québec à Montréal for their support in the organization of the conference. We thank all those many people who gave their time and effort to make the conference a success, all the members of the organizing committee, a fantastic team who regularly spent numerous hours on all the details of the conference, and all the students of the HERON laboratory in Montreal who helped with the practical organization of the conference. Finally, we appreciate the cooperation received from Springer-Verlag during the publication of this volume.

June 2000

Claude Frasson  
Gilles Gauthier  
Kurt VanLehn

## Conference Chair

Claude Frasson (Université de Montréal, Canada)

## Program Committee Chair

Kurt VanLehn (Learning Research and Development Center, Pittsburgh, USA)

## Program Committee

Marie Michèle Boulet (Université Laval, Canada)  
 Joost Breuker (University of Amsterdam, The Netherlands)  
 Peter Brusilovsky (CTE & HCII, Carnegie Mellon University, USA)  
 Stefano Cerri (Université de Montpellier, France)  
 Tak Wai Chan (National Central University, Taiwan, R.O.C.)  
 William Clancey (IHMC, University of West Florida, USA)  
 Alain Dericke (Université des sciences et techniques de Lille, France)  
 Pierre Dillenbourg (Université de Genève, Switzerland)  
 Ben du Boulay (University of Sussex, England)  
 Isabel Fernandez de Castro (UPV/EHU, Spain)  
 Carl Fredericksen (McGill University, Canada)  
 Sylvain Giroux (CRS4, Italy)  
 Guy Gouardères (Université de Pau, France)  
 Art Graesser (University of Memphis, USA)  
 Monique Grandbastien (Université de Nancy, France)  
 Jim Greer (University of Saskatchewan, Canada)  
 Denise Gurer (3-Com Corporation, USA)  
 Danielle Hérin Aimé (Université de Montpellier, France)  
 Koji Itoh (University of Tokyo, Japan)  
 Michelle Joab (Université Pierre et Marie Curie, France)  
 Lewis Johnson (University of Southern California, USA)  
 Judith Kay (University of Sydney, Australia)  
 Ken Koedinger (Carnegie Mellon University, USA)  
 Susanne Lajoie (McGill University, Canada)  
 Ruddy Lelouche (Université Laval, Canada)  
 Alan Lesgold (Learning Research and Development Center, Pittsburgh, USA)  
 James Lester (North Carolina State University, USA)  
 Chee-Kit Looi (Kent Ridge Digital Labs, Singapore)  
 Sandra Marshall (San Diego State University, USA)  
 Hermann Maurer (University of Graz, Austria)  
 Gordon McCalla (University of Saskatchewan, Canada)  
 Riichiro Mizoguchi (Osaka University, Japan)  
 Claus Moebus (University of Oldenburg, Germany)  
 Toshio Okamoto (University of Electro-communications, Japan)  
 Carol Redfield (St. Mary's University, San Antonio, USA)  
 Jeff Rickel (University of Southern California, USA)  
 John Self (University of Leeds, England)  
 Elliot Soloway (University of Michigan, USA)  
 Daniel Suthers (University of Hawaii, USA)  
 George Tecuci (George Mason University, USA)  
 Gerhard Weber (University of Trier, Germany)  
 Beverly Woolf (University of Massachusetts, USA)

### **ITS Steering Committee**

Stefano Cerri (Université de Montpellier, France)  
Claude Frasson (Université de Montréal, Canada)  
Gilles Gauthier (Université du Québec à Montréal, Canada)  
Guy Gouardères (Université de Pau, France)  
Marc Kaltenbach (Bishop's University, Canada)  
Judith Kay (University of Sydney, Australia)  
Alan Lesgold (Learning Research and Development Center, USA)  
Vimla Patel (McGill University, Canada)  
Elliot Soloway (University of Michigan, USA)  
Daniel Suthers (University of Hawaii, USA)  
Beverly Woolf (University of Massachusetts, USA)

### **Organizing Committee Chair**

Gilles Gauthier (Université du Québec à Montréal, Canada)

### **Special Student Track and Poster Session Chair**

Roger Nkambou (Université de Sherbrooke, Canada)

### **Workshops Chair**

Esma Aïmeur (Université de Montréal, Canada)

### **Panels Chair**

Stefano Cerri (Université de Montpellier, France)

### **Publicity Chair**

Denise Gurer (3-Com Corporation, USA)

### **Local Arrangements Chair**

Bernard Lefebvre (Université du Québec à Montréal, Canada)

### **Conference Treasurer & Registration Chair**

Michelle Martin (Université de Montréal, Canada)

### **External Reviewers**

Esma Aïmeur  
Joseph Beck  
Jacqueline Bourdeau  
Alexandra Cristea  
Aude Dufresne  
Claude Frasson  
Gilles Gauthier  
Gilles Imbeau  
Marc Kaltenbach  
Tarik Khan  
Bernard Lefebvre  
André Mayers

Jean-Francois Nicaud  
Roger Nkambou

## Submitted Papers Repartition

Algeria	1
Austria	2
Brazil	2
Canada	11
Estonia	1
Finland	1
France	10
Germany	6
Greece	3
Hong Kong	1
Japan	13
Korea	1
Mexico	3
The Netherlands	4
New Zealand	3
Portugal	2
Spain	6
UK	10
Ukraine	1
USA	25
Yugoslavia	2

Intelligent Tutoring Systems

5th International Conference, ITS 2000, Montreal,  
Canada, June 19-23, 2000 Proceedings

Gauthier, G.; Frasson, C.; VanLehn, K. (Eds.)

2000, XX, 684 p., Softcover

ISBN: 978-3-540-67655-3