The Eighteenth International Conference on
Case-Based Reasoning
ICCBR-10

Program of Events

University of Piemonte Orientale
Alessandria, Italy
July 19-22, 2010
ICCBR-10 Program of Events

Monday – 19 July 2010

08:30 Registration (Front of Aula Magna)

09:00 Welcome & Orientation (Aula Magna)

09:15 Invited Talk (Aula Magna) – Translational Bioinformatics: Challenges and Opportunities for Case-Based Reasoning and Decision Support
Professor Riccardo Bellazzi

10:15 Coffee break

10:30 Applications Track I / Computer Cooking Contest Workshop

Applications Track I (Aula Magna)
Chair Professor Jerzy Surma

10:30 – jCOLIBRI CBR Framework
Juan A. Recio García

11:00 – DrillEdge - case-based reasoning application for monitoring and knowledge management in oil well drilling
Frode Sørmo, Odd Erik Gundersen

11:30 – Flexible genome retrieval for supporting in-silico studies of endobacteria-AMFs
Stefania Montani, G. Leonardi, S. Ghignone, L. Lanfranco

12:00 – Bayesian Model Averaging for Case-based Reasoning in Bioinformatics
Isabelle Bichindaritz

Computer Cooking Contest Workshop (Aula 101)
Chair Professors Amélie Cordier and David Aha

10:30 – Introduction

10:45 – Approximating Knowledge of Cooking in High-Order Functions, A Case Study of Froglingo
Kevin H. Xu, Jingsong Zhang and Shelby Gao

11:00 – JADAWeb: A CBR System for Cooking Recipes
Miguel Ballesteros, Raul Martin and Belen Diaz-Agudo

11:15 – Adaptation of Cooking Instructions Following the Workflow Paradigm
Mirjam Minor, Ralph Bergmann, Sebastian Görg and Kirstin Walter

11:30 – TAAABLE 3: Adaptation of Ingredient Quantities and of Textual Preparations
Alexandre Blansché, Julien Cojan, Valmi Dufour-Lussier, Jean Lieber, Pascal Molli, Emmanuel Nauer, Hala Skaf-Molli and Yannick Toussaint

11:45 – On-Demand Recipe Processing Based on CBR
Régis Newo, Kerstin Bach, Alexandre Hanft and Klaus-Dieter Althoff

12:00 – Evaluation and Discussion

12:30 Lunch break

13:30 Applications Track II / Doctoral Consortium
Applications Track II (Aula Magna)
Chair Professor Jerzy Surma

13:30 – Strategos - CBR in Small and Medium Enterprises
   Jerzy Surma
14:00 – A Case-based Approach to Business Process Monitoring
   Stefania Montani, Georgio Leonardi
14:30 – Discussion

Doctoral Consortium (Aula 101)
Chair Professor Klaus-Dieter Althoff

13:30 – Personal discussion of each PhD student with their respective mentor
13:55 – Case-based plan diversity
   Alexandra Coman
14:20 – Different strategies to learning case adaptation knowledge in classification problems
   Mikhail Kalinkin
14:45 – Knowledge-intensive case based classification applied in medical diagnosis
   Abdeldjalil Khelassi

15:30 Coffee break

15:45 Computer Cooking Contest Finale

17:15 End of Sessions

18:00 Welcome Reception (Palazzo Monferrato)
Tuesday – 20 July 2010

08:30  Registration (Front of Aula Magna)

09:00  Workshop Session I

**CBR for Computer Games Workshop** (Aula 101)
*Chair Professors Manish Mehta, Santiago Ontañón, and Antonio A. Sánchez-Ruiz*

9:15 – Introduction and Goals of the Workshop
9:30 – Invited Talk: Artificial Intelligence for Games: Challenges and Opportunities
  *Pedro A. Gonzalez Calero*
10:10 – Using Automated Replay Annotation for Case-Based Planning in Games
  *Ben Weber and Santiago Ontañón*

**Reasoning from Experiences on the Web Workshop** (Aula 102)
*Chair Professors Derek Bridge, Sarah Jane Delany, Enric Plaza, Barry Smyth, and Nirmalie Wiratunga*

9:15 – Welcome
9:20 – Overview of Experience Web
9:30 – Conversational Framework for Web Search and Recommendations
  *Saurav Sahay and Ashwin Ram*
  *Paul Healy and Derek Bridge*
10:10 – On Retaining Web Search Cases
  *David Leake and Jay Powell*

10:30  Coffee break

10:45  Workshop Session II

**CBR for Computer Games Workshop** (Aula 101)
*Chair Professors Manish Mehta, Santiago Ontañón, and Antonio A. Sánchez-Ruiz*

10:45 – Feature Selection for CBR in Imitation of RoboCup Agents: A Comparative Study
  *Edgar Raul Acosta Villaseñor, Babak Esfandiari and Michael W. Floyd*
11:05 – Toward a Domain-Independent Case-Based Reasoning Approach for Imitation: Three Case
  Studies in Gaming
  *Michael Floyd and Babak Esfandiari*
11:25 – Meta-Level Behavior Adaptation in Real-Time Strategy Games
  *Manish Mehta, Santiago Ontañón and Ashwin Ram*
11:45 – Online Micro-Level Decision Making in Real-Time Strategy Games: A Case-Based Reasoning
  and Reinforcement Learning Approach
  *Chad Mowery, Nathan Spencer and Isabelle Bichindaritz*
12:05 – MMPM: a Generic Platform for Case-Based Planning Research
  *Pedro-Pablo Gómez Martín, David Llansó, Marco Antonio Gómez Martín, Santiago Ontañón and Ashwin Ram*
12:25 – Closing Remarks
Reasoning from Experiences on the Web Workshop (Aula 102)
Chair Professors Derek Bridge, Sarah Jane Delany, Enric Plaza, Barry Smyth, and Nirmalie Wiratunga

11:00 – Enabling Case-Based Reasoning on the Web of Data
Benjamin Heitmann and Conor Hayes
11:20 – Deriving Case Base Vocabulary from Web Community Data
Kerstin Bach, Christian Severin Sauer and Klaus-Dieter Althoff
11:40 – Similarity Assessment through Blocking and Affordance Assignment in Textual CBR
Rajendra Prasath and Pinar Öztürk
12:00 – Panel Discussion
Conor Hayes, David Leake and Enric Plaza

12:30 Lunch break

13:30 Workshop Session III

CBR Startups Workshop (Aula 101)
Chair Professors Ashwin Ram and Saurav Sahay

13:30 – Introduction and Context
Ashwin Ram
13:40 – Barry Smyth, University College Dublin; Founder, HeyStaks
14:00 – Peter Funk, Mälardalen University; Founder, FunkAl
14:20 – Frode Sørmo, Norwegian University of Science and Technology; Founder, Verdande
14:40 – Panel Discussion with Open Audience Questions
15:10 – 3-Minute CBR Gauntlet Pitch Competition
15:30 – Meetup/Break-Out Session
15:50 – Close and Announcements
Ashwin Ram

Provenance Aware CBR Workshop (Aula 102)
Chair Professors David Leake, Thomas Roth-Berghofer, Barry Smyth, and Joseph Kendall-Morwick

13:30 – Welcome and Overview
13:40 – Session I: Provenance for Case Capture and Enriching the CBR Process
Dynamic Case-Based Reasoning for Contextual Reuse of Experience
Amélie Cordier, Bruno Mascret and Alain Mille
External Provenance, Internal Provenance, and Case-Based Reasoning
David Leake and Joseph Kendall-Morwick
Towards a Lazier Approach to Problem Solving in Case-Based Reasoning
David McSherry
14:50 – Session II: Provenance to Support Explanation
From Provenance-Awareness to Explanation-Awareness—When Linked Data Is Used for Case Acquisition from Texts
Thomas Roth-Berghofer and Benjamin Adrian
Explanations in Bayesian Networks using Provenance through Case-Based Reasoning
Anders Kofod-Petersen, Agnar Aamodt and Helge Langseth
15:30 – Session III: General Discussion of Provenance-Aware CBR
Next Steps for Advancing Investigation of PA-CBR
ICCBR-10 Program of Events

16:00  Coffee break
16:15  Poster Session
17:30  End of Sessions
Poster Session Papers

A Case Based Reasoning Approach for the Monitoring of Business Workflows  
*Stelios Kapetanakis, Miltos Petridis, Brian Knight, Jixin Ma, Liz Bacon*

A Case-Based Reasoning Approach to Automating the Construction of Multiple Choice Questions  
*David McSherry*

A Method Based on Query Caching and Predicate Substitution for the Treatment of Failing Database Queries  
*Olivier Pivert, Helene Jaudoin, Carmen Brando, Allel Hadjali*

a.SCatch - Semantic Structure for Architectural Floor Plan Retrieval  
*Markus Weber, Christoph Langenhan, Thomas Roth-Berghofer, Marcus Liwicki, Andreas Dengel, Frank Petzold*

Case Based Reasoning with Bayesian Model Averaging: an Improved Method for Survival Analysis on Microarray Data  
*Isabelle Bichindaritz, Amalia Annest*

Case Retrieval with Combined Adaptability and Similarity Criteria: Application to Case Retrieval Nets  
*Nabila Nouaouria, Mounir Boukadoum*

CBTV: Visualising Case Bases for Similarity Measure Design & Selection  
*Brian Mac Namee, Sarah Jane Delany*

Detecting Change via Competence Model  
*Ning Lu, Guangquan Zhang, Jie Lu*

Extending CBR with Multiple Knowledge Sources from Web  
*Juan A. Recio-Garcia, Miguel A. Casado-Hernandez, Belen Diaz-Agudo*

Improving Pervasive Application Behavior Using Other Users' Information  
*Michael Spence, Siobhan Clarke*

On-the-Fly Adaptive Planning for Game-Based Learning  
*Ioana Hulpus, Conor Hayes, Manuel Fradinho*

Recognition of Higher-order Relations Among Features in Textual Cases Using Random Indexing  
*Pinar Ozturk, Rajendra Prasath*

Reexamination of CBR Hypothesis  
*Xi-feng Zhou, Ze-lin Shi, Huai-ci Zhao*

Text Adaptation Using Formal Concept Analysis  
*Valmi Dufour-Lussier, Jean Lieber, Emmanuel Nauer, Yannick Toussaint*

The Utility Problem for Lazy Learners - Towards a non-Eager Approach  
*Tor Gunnar Houeland, Agnar Aamodt*

User Trace-Based Recommendation System for a Digital Archive  
*Reim Doumat, Elod Egyed-Zsigmond, Jean-Marie Pinon*

Visualization for the Masses: Learning from the Experts  
*Jill Freyne, Barry Smyth*
Wednesday – 21 July 2010

08:30  Registration (Front of Aula magna)

09:00  Welcome (Aula magna)

09:15  **Workshop Summaries**

09:45  **Invited Talk** – Why and how knowledge discovery can be useful for solving problems with CBR  
*Professor Amedeo Napoli*

10:45  Coffee break

11:00  **Paper Session I: Adaptation & Reuse** (Chair Professor Agnar Aamodt)
  
  11:00 – Amalgams: A Formal Approach for Combining Multiple Case Solutions  
  *Santiago Ontañon, Enric Plaza*
  
  11:25 – An Algorithm for Adapting Cases Represented in an Expressive Description Logic  
  *Julien Cojan, Jean Lieber*
  
  11:50 – A General Introspective Reasoning Approach to Web Search for Case Adaptation  
  *David Leake, Jay Powell*

12:15  Lunch break

13:30  **Paper Session II: Learning & Knowledge Elicitation** (Chair Professor David Aha)
  
  13:30 – Imitating Inscrutable Enemies: Learning from Stochastic Policy Observation, Retrieval and Reuse  
  *Kellen Gillespie, Justin Karneeb, Stephen Lee-Urban, Hector Muñoz-Avila*
  
  13:55 – Reducing the Memory Footprint of Temporal Difference Learning over Finitely Many States by Using Case-Based Generalization  
  *Matt Dilts, Hector Muñoz-Avila*
  
  14:20 – A Case for Folk Arguments in Case-Based Reasoning  
  *Luis A. L. Silva, John A. Campbell, Nicholas Eastaugh, Bernard F. Buxton*
  
  14:45 – Intelligent data interpretation and case base exploration through Temporal Abstractions  
  *Alessio Bottrighi, Giorgio Leonardi, Stefania Montani, Luigi Portinale, Paolo Terenziani*

15:10  Coffee break

15:25  **Paper Session III: Planning** (Chair Professor Enric Plaza)
  
  15:25 – Case-based Plan Diversity  
  *Alexandra Coman, Hector Muñoz-Avila*
  
  15:50 – Goal-Driven Autonomy with Case-Based Reasoning  
  *Hector Muñoz-Avila, David W. Aha, Ulit Jaidee, Elizabeth Carter*

16:15  PC Meeting

17:15  End of Sessions and Transportation to Gala Dinner

18:00  Gala Dinner Ristorante Antico Monastero – Lu Monferrato
Thursday – 22 July 2010

08:30  Registration (Front of Aula magna)

09:30  **Invited Talk** – Real-Time Case-Based Reasoning for Interactive Digital Entertainment  
*Professor Ashwin Ram*

10:30  Coffee break

10:45  **Paper Session IV: Textual CBR** (Chair Professor Susan Craw)  
10:45 – EGAL: Exploration Guided Active Learning for TCBR  
*Rong Hu, Sarah Jane Delany, Brian Mac Namee*

11:10 – Applying Machine Translation Evaluation Techniques to Textual CBR  
*Ibrahim Adeyanju, Nirmalie Wiratunga, Robert Lothian, Susan Craw*

11:35 – Taxonomic Semantic Indexing for Textual Case-Based Reasoning  
*Juan Recio-Garcia, Nirmalie Wiratunga*

12:00 – Introspective Knowledge Revision in Textual Case-Based Reasoning  
*Karthik Jayanthi, Sutanu Chakraborti, Stewart Massie*

12:25  Lunch break

13:30  **Paper Session V: Tools and Applications** (Chair Professor Luigi Portinale)  
13:30 - Experience-Based Critiquing: Reusing Critiquing Experiences to Improve Conversational Recommendation  
*Yasser Salem, Kevin McCarthy, Barry Smyth*

13:55 – Case Acquisition from Text: Ontology-based Information Extraction with SCOOBIE for myCBR  
*Thomas Roth-Berghofer, Benjamin Adrian, Andreas Dengel*

14:20 – Runtime Estimation Using the Case-based Reasoning Approach for Scheduling in a Grid Environment  
*Edward Xia, Igor Jurisica, Julie Waterhouse, Valerie Sloan*

14:45 – Towards Case-Based Adaptation of Workflows  
*Mirjam Minor, Ralph Bergmann, Sebastian Goerg, Kirstin Walter*

15:10 – Similarity-Based Retrieval & Solution Re-Use Policies in the Game of Texas Hold’em  
*Jonathan Rubin, Ian Watson*

15:35  Community Meeting & Closing

17  End of Sessions