

# Editorial

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This is the first issue of the second year of the new *Intelligenza Artificiale* international edition. It falls in an important year: Alan Turing's birth centennial. How would Turing feel if he could see the achievements of AI? Many will discuss this issue. My personal view: I think that the results in many sectors would have pleased him, also considering the evolution of the general context. Yet the state of the challenge for an overall integrated intelligent machine is largely behind expectations. Another observation is that the applied side is shaping a lot of the field and research is often oriented toward short term results. But the positive facet of this development should not be underestimated: one consequence is that there is a concrete impact on society and AI is generally appreciated even more than it appears at a superficial glance. Only ignorant persons – or very cold-ish individuals – might speak of an AI winter.

Turing's mathematical foundation of computation makes him a father of computer science as such. And the ACM Turing Award, given for the first time in 1966, is recognised as the "highest distinction in Computer Science" and the "Nobel Prize of computing". So it is extremely important news for our community that on the centennial of Turing's birth the Award has been given to Judea Pearl, a colleague who devoted his entire life to Artificial Intelligence. It gives us particular pleasure that the recipient is not only an outstanding scientist but also an outstanding human being. The motivation reads "for innovations that enabled remarkable advances in the partnership between humans and machines that is the foundation of Artificial Intelligence (AI). Pearl pioneered developments in probabilistic and causal reasoning and their application to a broad range

of problems and challenges. He created a computational foundation for processing information under uncertainty, a core problem faced by intelligent systems. He also developed graphical methods and symbolic calculus that enable machines to reason about actions and observations, and to assess cause-effect relationships from empirical findings. His work serves as the standard method for handling uncertainty in computer systems, with applications ranging from medical diagnosis, homeland security and genetic counseling to natural language understanding and mapping gene expression data. His influence extends beyond artificial intelligence and even computer science, to human reasoning and the philosophy of science".

Coming to the current issue of *Intelligenza Artificiale*, I hope you will find this collection of papers stimulating. All the articles but one are based on award-winning material. Three of the papers are extended versions of papers recognised as best papers at workshops co-located with the 2011 Conference of the Italian Association for Artificial Intelligence, held in Palermo in September 2011. "Experimentation of an Expectation Maximization Algorithm for Probabilistic Logic Programs" by Elena Bellodi and Fabrizio Riguzzi has its origin in the best paper of the Mining Complex Patterns Workshop, MCP 2011. Thanks to the organisers: Annalisa Appice, Michelangelo Ceci, Corrado Loglisci and Giuseppe Manco. "Semantic Mashups of Multimedia Cultural Stories" by Francesco Mele and Antonio Sorgente finds its origin in the best paper of the AI and Cultural Heritage Workshop. Thanks to the organiser, Luciana Bordini. "From Tags to Emotions: Ontology-driven Sentiment Analysis in the Social

Semantic Web” by Matteo Baldoni, Cristina Baroglio, Viviana Patti and Paolo Rena, originated from the best paper of DART 2011, the Fifth International Workshop on New Challenges in Distributed Information Filtering and Retrieval. Thank you to the organisers, Cristian Lai, Giovanni Semeraro and Eloisa Vargiu.

The paper “Bertrand–Edgeworth Pricing Equilibrium in Web Service Markets” is by Nicola Gatti, the 2011 winner of the prestigious Marco Somalvico Award, given to a distinguished young researcher in Artificial Intelligence. And finally “Reasoning on Logic Programs with Annotated Disjunctions” is by Stefano Bragaglia, who received the 2010 AI\*IA award for the best master dissertation.

The paper “Flexible Choreography-driven Service Selection” by Matteo Baldoni, Cristina Baroglio, Elisa Marengo, Viviana Patti and Claudio Schifanella completes the present issue.

In general we intend to continue alternating one special issue with a normal issue, while keeping a high publication quality that reflects the quality of the Italian Artificial Intelligence community, which enjoys a solid tradition and is quite active. At the same time we are pleased to attract papers from the international community and to propose thoroughly reviewed papers to the wider audience of Artificial Intelligence practitioners.

I would like to dedicate a final word to recognize Amedeo Cappelli, former AI\*IA treasurer who helped set the base for a solid AI\*IA, and who is retiring from the National Council for Research at the end of April 2012. We are sure Amedeo will go on contributing to AI\*IA, including in his capacity as member of the editorial board of the *Intelligenza Artificiale* journal; yet this is a good occasion to say thank you from these columns.