

Preface

Intelligent agent-based systems constitute one of the most exciting research areas in artificial intelligence. Owing to the growing interest in the application of agent-based systems in health care, a number of applications addressing clinical problems are already based on agent technology. Current topics of research include personalized health systems for remote and autonomous tele-assistance, communication, and co-operation between distributed intelligent agents to manage patient care, information agents that retrieve medical information from distributed repositories, intelligent and distributed data mining, and multi-agent systems that assist the doctors in the tasks of monitoring, decision support, and diagnosis. Several methodological and technical problems have been discovered by researchers who attempt to deploy agent-based systems in the medical area; just to name a few, the growing number of huge databases that need to be integrated (e.g., genetic data from next-generation sequencing), the difficulty to integrate new agent-based systems with legacy software, the need to apply changing national and international laws and regulations concerning the privacy of medical data, and the security of the transaction of patient information between agents.

In 2017, these topics were discussed in two major workshops:

1. The 10th edition of the Workshop on Agents Applied in Health Care (A2HC 2017) hosted at AAMAS 2017, the 16th International Conference on Autonomous Agents and Multiagent Systems, which took place in São Paulo, Brazil on May 8, 2017
2. Workshop on Agents and Multi-agent Systems for AAL and e-Health (A-HEALTH 2017) hosted at PAAMS 2017, the 15th International Conference on Practical Applications of Agents and Multi-Agent Systems, which took place in Porto, Portugal, during June 21, 2017

For the 2017 edition of the two workshops, we received a total of 16 submissions, from which we selected nine for presentation (near 55% acceptance). This proceedings joint volume gathers peer-reviewed extended versions of selected papers presented at these workshops.

We are deeply grateful to all the participants for their lively contribution during the presentation of the papers and during the general discussion about the challenges that the application of agent technology in the health-care field faces. We are also very grateful to all the members of the Program Committee for their hard work. A special thanks goes to Juan Antonio Rodríguez Aguilar (IIIA-CSIC, Spain) and Gita Sukthankar (University of Central Florida, USA) for their work as AAMAS 2017

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Sara Montagna
Pedro Henriques Abreu
Sylvain Giroux
Michael Ignaz Schumacher

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Montagna, S.; Abreu, P.H.; Giroux, S.; Schumacher, M.I.
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