

Preface

JSAI-isAI (JSAI International Symposium on Artificial Intelligence) 2016 was the eighth international symposium on AI supported by the Japanese Society of Artificial Intelligence (JSAI). JSAI-isAI 2016 was successfully held during November 14–16 at Keio University in Kanagawa, Japan. In all, 177 people from 14 countries participated. The symposium took place after the JSAI SIG joint meeting. As the total number of participants for these two co-located events was about 990, it was the second-largest JSAI event in 2016 after the JSAI annual meeting.

JSAI-isAI 2016 included seven workshops, where 13 invited talks and 81 papers were presented. This volume, “*New Frontiers in Artificial Intelligence: JSAI-isAI 2016 Workshops*,” comprises the proceedings of JSAI-isAI 2016. From five (LENLS 13, HAT-MASH 2016, AI-Biz 2016, JURISIN 2016, and SKL 2016) out of seven workshops, 22 papers were carefully selected and revised according to the comments of the workshop Program Committees. About 34% of the total submissions were selected for inclusion in the conference proceedings.

LENLS 13 was the 13th event in the series, and it focused on the formal and theoretical aspects of natural language. LENLS (Logic and Engineering of Natural Language Semantics) is an annual international workshop recognized internationally in the formal syntax–semantics–pragmatics community. It brings together for discussion and interdisciplinary communication researchers working on formal theories of natural language syntax, semantics and pragmatics, (formal) philosophy, artificial intelligence, and computational linguistics.

HAT-MASH 2016 (Healthy Aging Tech Mashup Service, Data and People) was the second international workshop in the series; it bridges healthy aging and elderly care technology, information technology, and service engineering. The main objective of this workshop was to provide a forum to discuss important research questions and practical challenges in healthy aging and elderly care support to promote transdisciplinary approaches.

AI-Biz 2016 (Artificial Intelligence of and for Business) was the first workshop, in the series held to foster the concepts and techniques of business intelligence (BI) in artificial intelligence. BI should include such cutting-edge techniques as data science, agent-based modelling, complex adaptive systems, and IoT. The main purpose of this workshop is to provide a forum to discuss important research questions and practical challenges in BI, business informatics, data analysis and agent-based modelling so as to exchange the latest results and to join efforts in solving the common challenges.

JURISIN 2016 was the 10th international workshop on juris-informatics. Juris-informatics is a new research area that studies legal issues from the perspective of informatics. The purpose of this workshop was to discuss both the fundamental and practical issues among people from various backgrounds such as law, social science, information and intelligent technology, logic and philosophy, including the conventional “AI and law” area.

SKL 2016 (the Third International Workshop on Skill Science) aimed to internationalize the research on skill sciences through the meeting. Human skills involve well-attuned perception and fine motor control, often accompanied by thoughtful planning. The involvement of body, environment, and tools mediating them makes the study of skills unique among researches of human intelligence.

It is our great pleasure to be able to share some highlights of these fascinating workshops in this volume. We hope this book will introduce readers to the state-of-the-art research outcomes of JSAI-isAI 2016 and motivate them to participate in future JSAI-isAI events.

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New Frontiers in Artificial Intelligence

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