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Workshop on AI Problems and Approaches for Intelligent Environments

(AI@IE 2012)

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Workshop on AI Problems and Approaches for Intelligent Environments (AI@IE 2012)

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Contents

Preface

The first *international workshop on AI Problems and Approaches for Intelligent Environments (AI@IE)* is a one day event co-located with the *European Conference on Artificial Intelligence 2012*. It encourages the interaction between researchers in the area of artificial intelligence and smart environments to identify and discuss problems at the intersection of the two research areas, and to transfer the technical results to researchers applying AI methods in intelligent environments.

Researchers in the area of intelligent environments aim to embed intelligence into everyday working and living spaces. To reach this goal they investigate options to integrate smart technologies into ordinary objects within the environment or by controlling the available infrastructure in some clever way. The scale of tackled environments ranges from single rooms up to complete houses and whole cities. The ultimate goal is the creation of environments which support their users proactively and optimise themselves, for example with respect to energy usage. Advances in the area of artificial intelligence as well as in computer science in general should already enable researchers to build truly intelligent environments. In the last decade, numerous projects in industry and academia have targeted at providing intelligent environments and produced an impressive count of showcase-rooms or even buildings. Researchers from diverse disciplines, most notably Pervasive Computing, have been attracted by the chances and challenges in applying AI in IE. However, so far most intelligent environments are not yet intelligent from an AI perspective, but only instrumented environments providing some intelligent interaction modalities and some support for maintenance tasks. This workshop bridges the gap between AI researchers and developers of intelligent environments in various disciplines. It provides a forum for discussion between the different communities and encourages:

1. The establishment of new research collaborations between researchers from the areas of artificial intelligence, intelligent environments and pervasive computing.
2. The identification of open AI problems within the area of intelligent environments.
3. The identification of problems occurring while applying AI techniques in practice (e.g., the availability of scalable and robust implementations), which need to be solved when building intelligent environments.
4. The Collection of a set of case studies of smart environments with a particular focus on the used AI techniques and open AI problems and the lessons learned while building them.
5. The collection of benchmark data sets for the evaluation of AI methods within the area of intelligent environments.
6. The development of a suitable notion of intelligence while considering intelligent environments.

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