Preface

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Welcome to the final issue of the second volume of the *International Journal of Web and Grid Services*. This issue is a special issue on *Mobile Services and Mobile Semantic* featuring five articles. Mobile computing and technology has undoubtedly become part of our daily lives. Mobile services play an important role in making mobile technology applications more accessible to the wider users, and some of these applications are semantically enriched. This special issue is devoted to discussing issues and trends in mobile services and mobile semantic, as well as their applications in mobile commerce.

The first paper, entitled 'Filling the gap between mobile and service-oriented computing: issues for evolving mobile computing towards wired infrastructures and vice versa' by Oliveira *et al.*, discusses the role of Service-Oriented Computing (SOC) and Service-Oriented Architectures (SOA) in software engineering of mobile technology applications. In these applications, portable devices interact with other portable devices and resources from wired networks to offer personalised services to users. This paper discusses issues related to the integration of mobile and service-oriented computing.

The second paper, entitled 'Embedded agents: a paradigm for mobile services' by O'Hare *et al.*, explores the state of the art in mobile computing and intelligent agents. It starts with giving a historical overview of mobile computing, including embedded operating systems, programming for mobile devices and mobile communication technologies, and use of intelligent systems in mobile computing. The paper then describes briefly intelligent agent paradigm, which is then followed by agent platforms for mobile devices, covering non-embedded and embedded agents for mobile devices. They conclude by giving an overview of their proposed system: AFME – A Resource Constrained Intelligent Agent Architecture.

The third paper, entitled 'A framework for knowledge representation in semantic mobile applications' by Kamthan, presents a framework for understanding the potential of the semantic web for mobile applications. The author argues that semantic mobile applications must align themselves to the semantic web, and the transition from the traditional mobile applications to semantic mobile applications is a complex process, and therefore a more systematic approach is critical.

The fourth paper, entitled 'Semantic-enhanced Bluetooth discovery protocol for m-commerce applications' by Ruta *et al.*, focuses on the Bluetooth technology. It presents a resource discovery framework for m-commerce by integrating a semantic layer in the application level.

The fifth paper, entitled 'Semantically enriched navigation for indoor environments' by Tsetsos *et al.*, concentrates on location-based mobile services, especially the indoor navigation system. Their proposed method incorporates ontology and user profiles, which makes the navigation more intelligent.

As a final note, mobile services, mobile semantic, and mobile commerce play an important role in advancing mobile technology applications, making them more powerful and useful to a wider community in which mobile technology is part of their daily lives.