

# RECOMMENDATION OF PERSONALISED TOURIST RESOURCES

## Tourlmm – IMMERSIVE TOURISM MOBILE APPLICATION

### Motivation

- Interest in improving the tourist experience by means of personalisation and immersion
- Desire to improve knowledge in agent-based computing, mobile applications, recommendation, profiling, immersion, cloud computing and cloud storage

### Methodology

- Research, analysis and comparison of profiling, recommendation and semantic enrichment techniques
- Survey, analysis and selection of PaaS solutions and MAS platforms

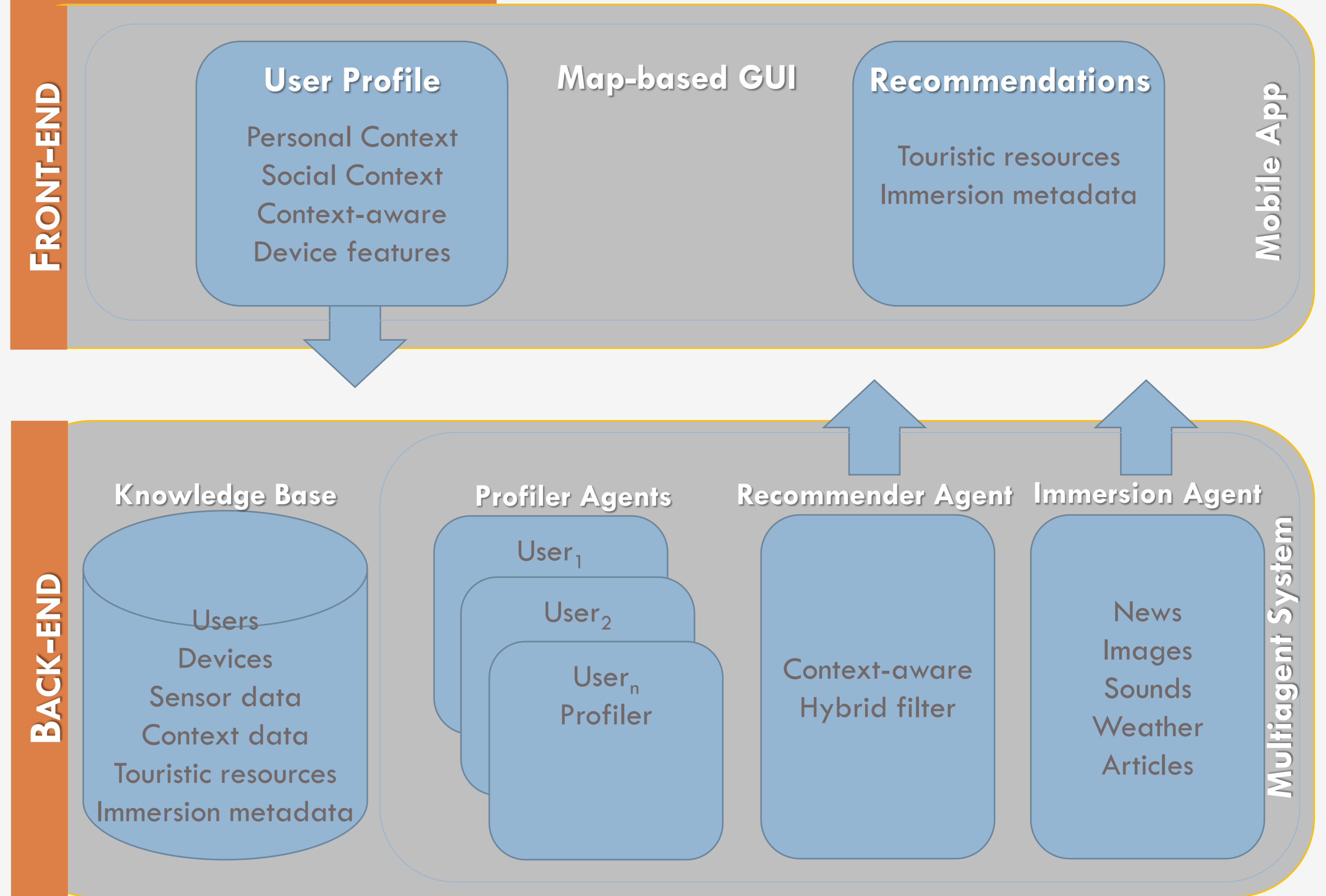
### Objectives

- Recommend personalised tourism resources in deferred and real time
- Mobile app front-end
- Agent-based cloud back-end: RESTful API + cloud storage
- Recommendation: hybrid filter
- Context-awareness: time, space, motion
- Profiling: age, gender, individual and social history, preferences
- Immersion: complementary news, weather, sound, images, articles

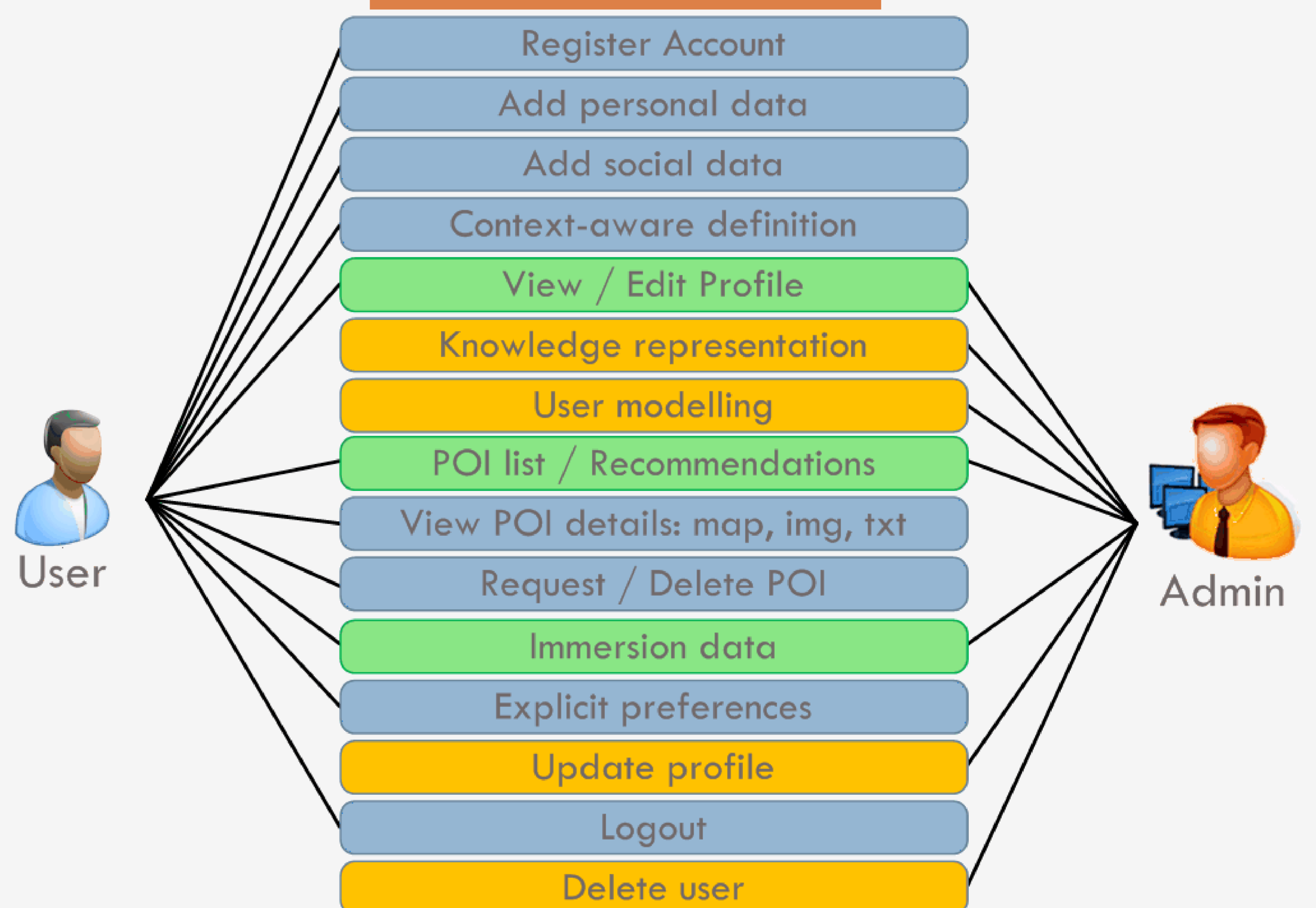
### Research Plan

Task	Period	Description
1	Apr 14	Context-aware Tourism Systems: <ul style="list-style-type: none"> <li>Survey covering existing development platforms, mobile applications, ontologies and knowledge processing technologies</li> <li>Writing of the corresponding chapter of the dissertation on the wiki</li> </ul>
	Jan 15	
2	Jan 15 Apr 15	Preparation and submission of an article entitled "Context-aware Tourism Technologies" to the <a href="#">Knowledge Engineering Review Journal</a>
3	Apr 15 May 15	Specification of the system requirements, use cases and functional tests
4	Jun 15	Knowledge Representation Module: <ul style="list-style-type: none"> <li>Specification and implementation of the ontology(ies) for users, mobile devices, tourism resources, context and immersion data</li> </ul>
	Sep 15	
5	Aug 15	Context Acquisition Module: <ul style="list-style-type: none"> <li>Specification and implementation</li> <li>Writing and submitting a related paper to a conference</li> </ul>
	Dec 15	
6	Feb 16	User Profiling Module: <ul style="list-style-type: none"> <li>Specification, implementation</li> <li>Writing and submitting a related paper to a conference</li> </ul>
	Jun 16	

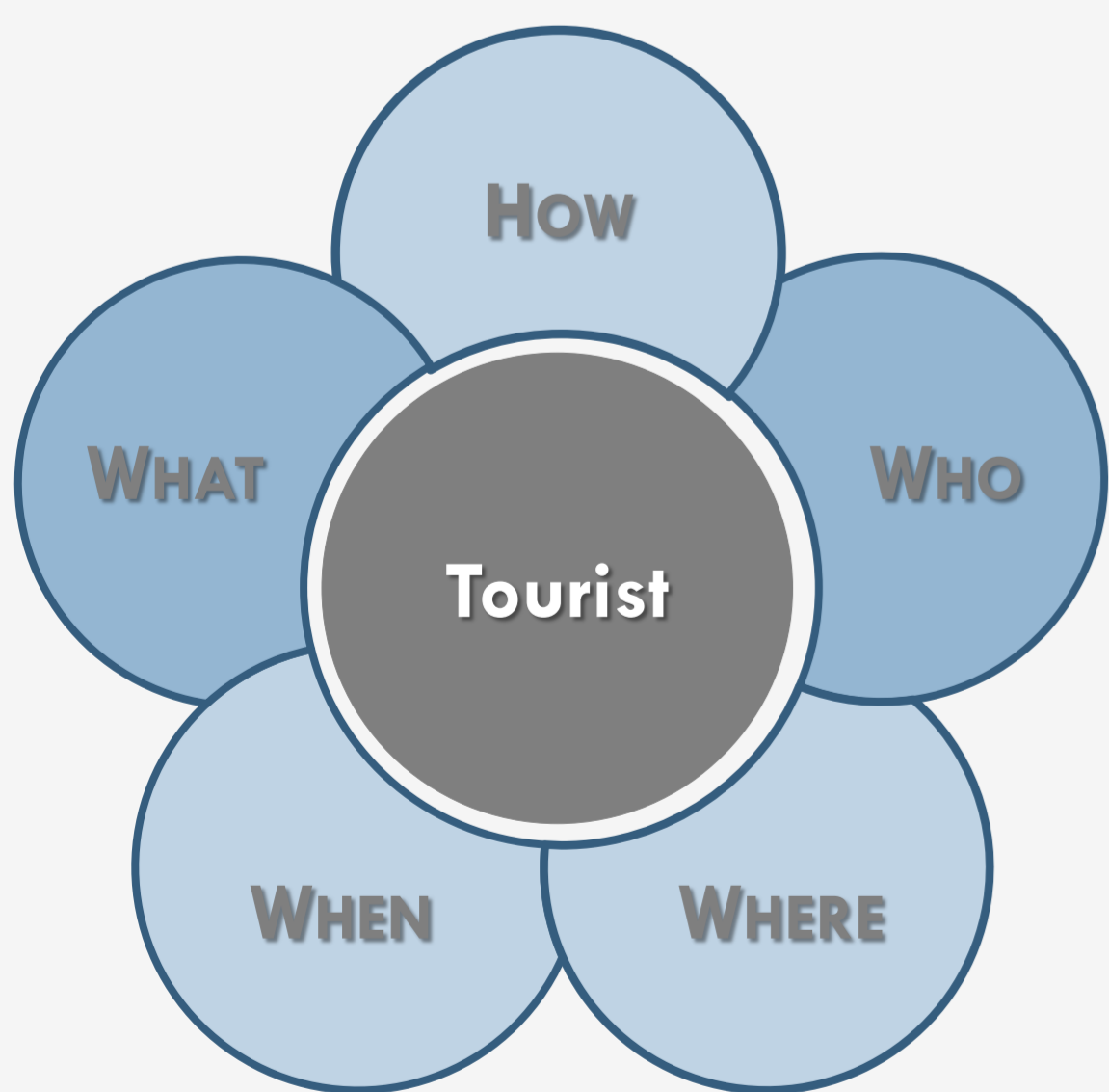
### Tourlmm Architecture



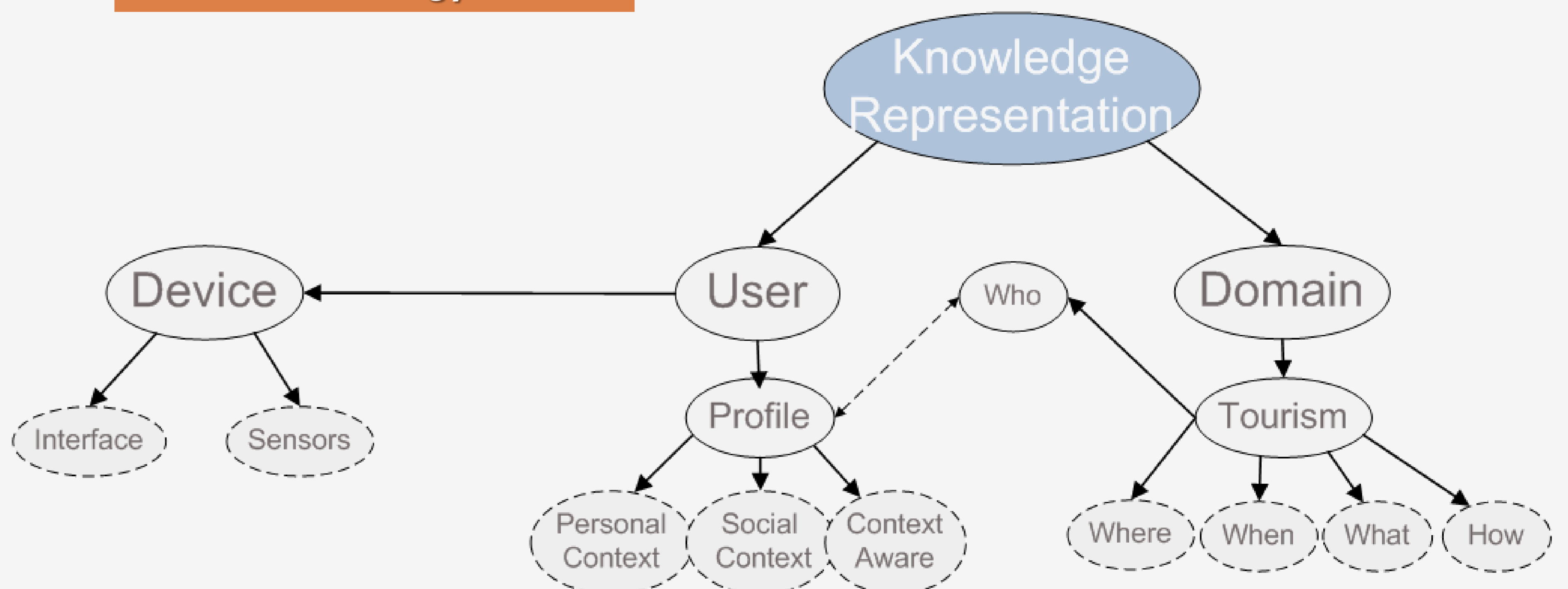
### Tourlmm Use case



### Profile Definition [1][2]



### Tourlmm Ontology [3][4]



### References

- [1] Abowd, Gregory D., Dey, Anind K., Brown, Peter J., Davies, Nigel, Smith, Mark, Steggles, Pete, 1999. Towards a Better Understanding of Context and Context-Awareness. London, UK, UK: Springer-Verlag, pp.304–307.  
 [2] Mezghani, Manel, Zayani, Corinne Amel, Amous, Ikram, Gargouri, Faiez, 2012. A user profile modelling using social annotations: a survey. pp.969–976.  
 [3] Poveda Villalon, Maria, Suárez-Figueroa, Mari Carmen, García-Castro, Raúl, Gómez-Pérez, Asunción, 2010. A context ontology for mobile environments. CEUR-WS.  
 [4] Golemati, Maria, Katifori, Akrivi, Vassilakis, Costas, Lepouras, George, Halatsis, Constantin, 2007. Creating an ontology for the user profile: Method and applications. pp.407–412.

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