

Recommendation of Tourism Resources Supported by Crowdsourcing

Fátima Leal^{1,3}, Benedita Malheiro^{2,3}, Juan Carlos Burguillo¹

¹University of Vigo, ²Instituto Superior de Engenharia do Porto, ³INESC TEC

Motivation

Impact of Mobile Technology in the planning, experiencing and sharing of travelling

Big Data analysis: a current strength for tourism domain

Importance of Trust & Reputation in tourism applications

Impact of crowd-sourced recommendations

Tourism Mobile Applications

Goals

Explore Crowdsourcing to maintain the knowledge base of tourism resources (food, transportation, accommodation, events and attractions)

Design Trust & Reputation models for the validation of crowd publishers and crowd-sourced data

Build user profiling and personalised context-aware recommendations algorithms

Research Plan

Tourism Crowdsourcing

- State-of-the-art review
- Tourist behaviour questionnaire

Done

Trust & Reputation

- Analysis of Crowd-sourced data
- Identification of patterns and trends
- Usage of Wikivoyage to design and validate Trust & Reputation mechanisms

Done On-going

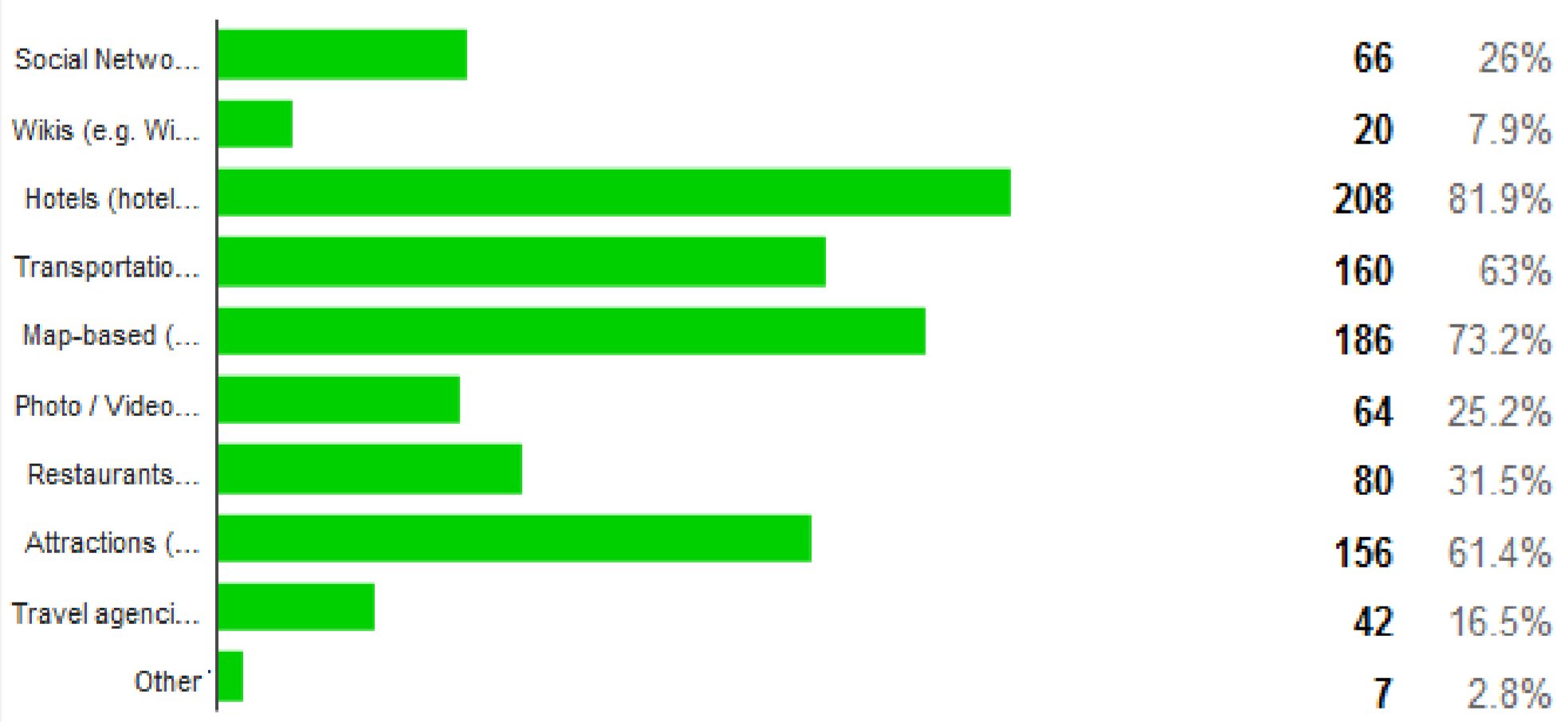
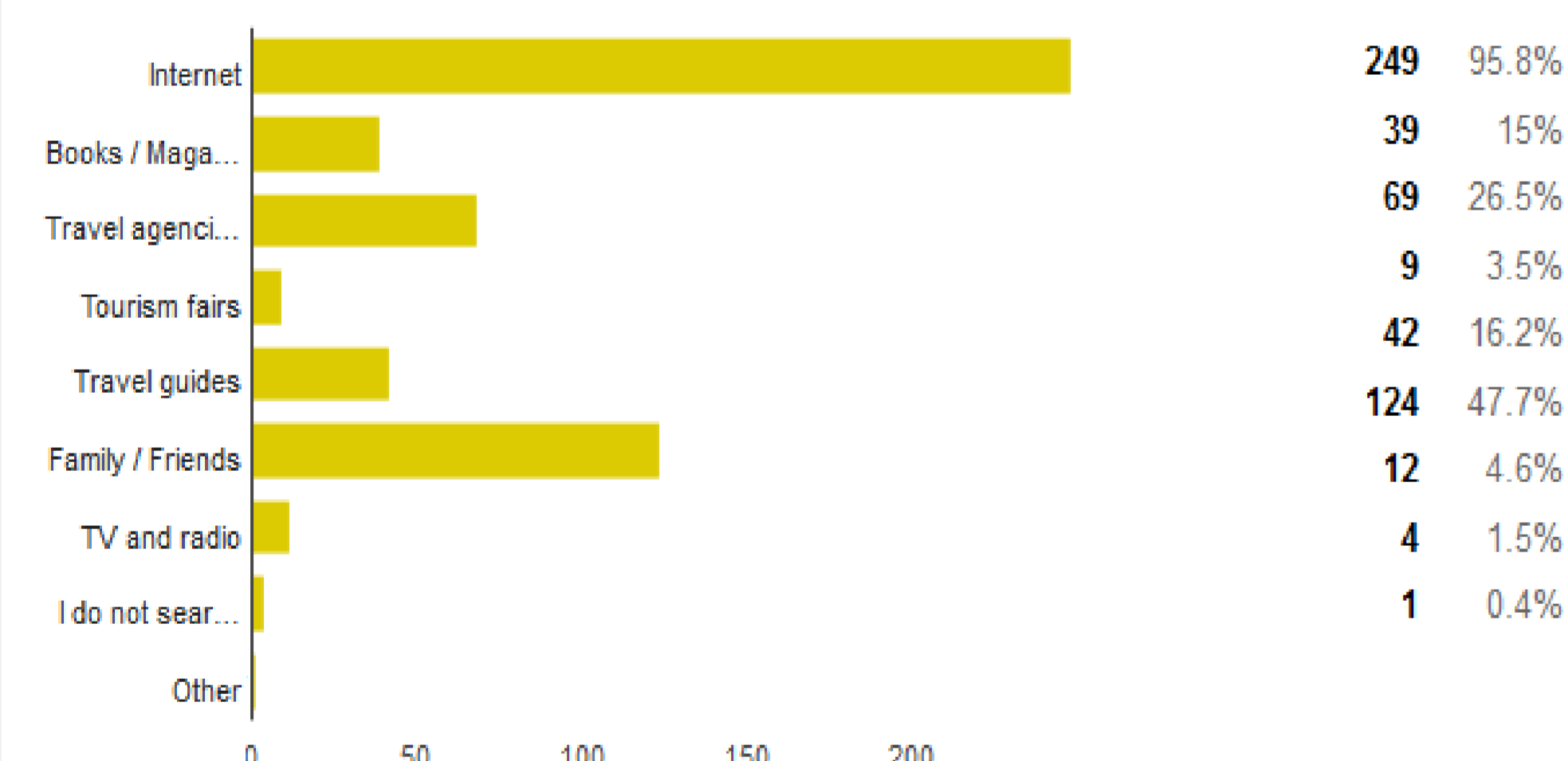
Profiling & Recommendations

- Build the user profile (Tourists)
- Recommendation of tourism resources based on the current user context and profile

Next Year

Results & Discussions

Travel Planning



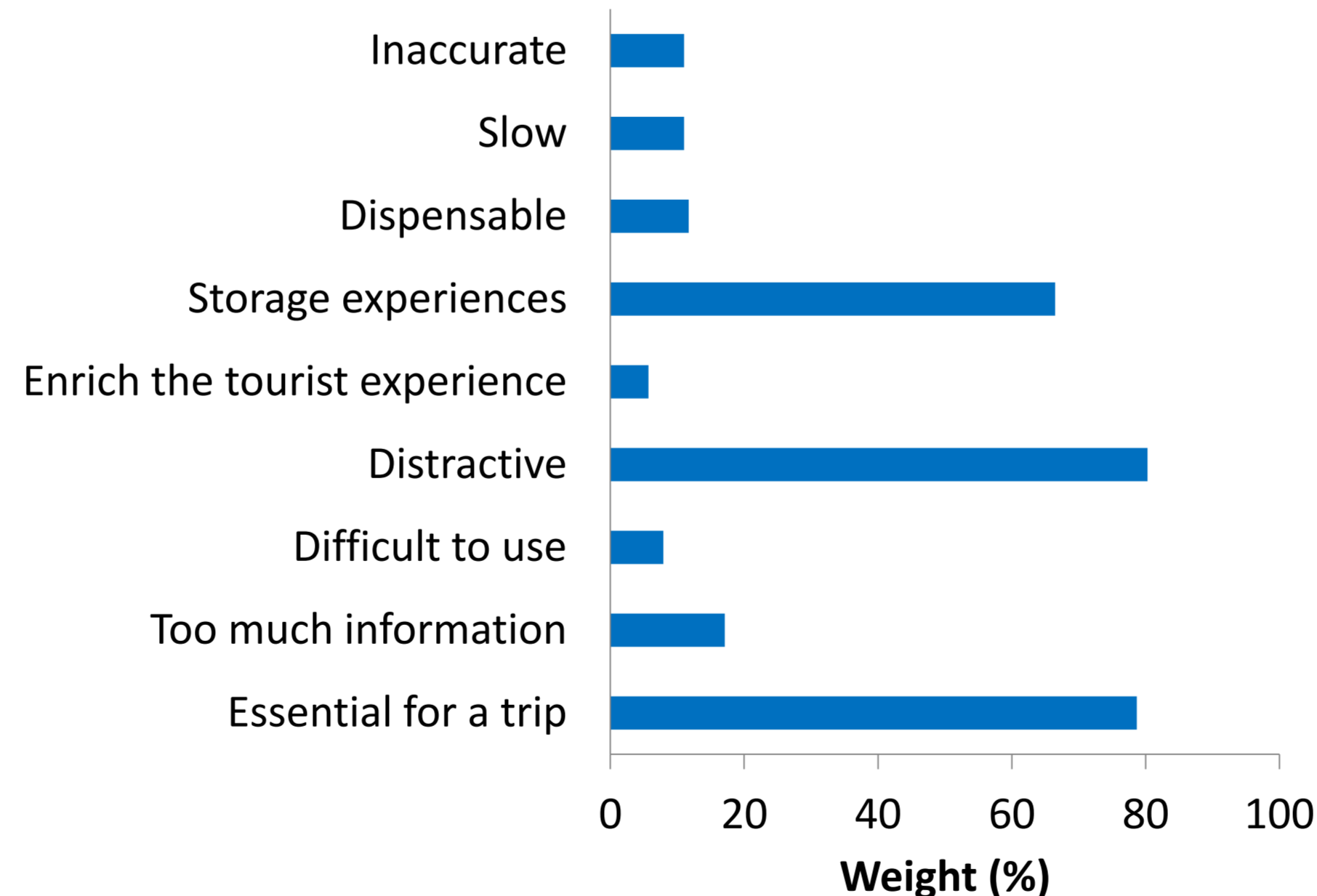
Relevant Aspects

1. Price – 96.4 %
2. Location – 95.4 %
3. Reputation – 82.5 %

Technologies

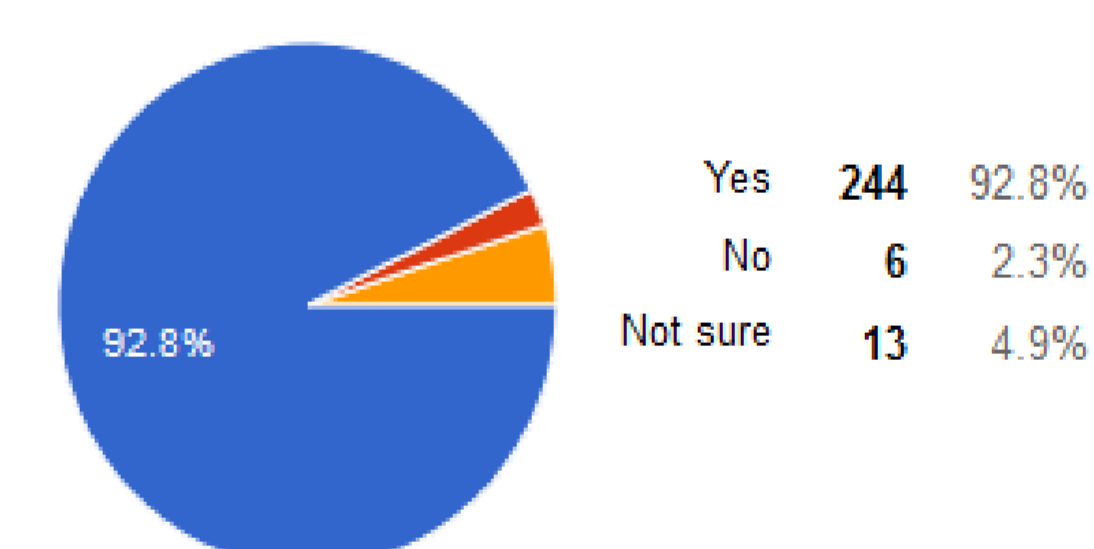
Relevant Functionalities in Applications	Weight (%)
Detailed travel planning	66.5
Rated attractions	63.1
Personalised recommendations	63.1
Shared points of interest	56.7
Detailed description of points of interest	46.0
Complementary information	43.3
Map-based interface	40.3
Voice-based interface	01.5
Sound immersion	01.1

Tourism Technologies are:

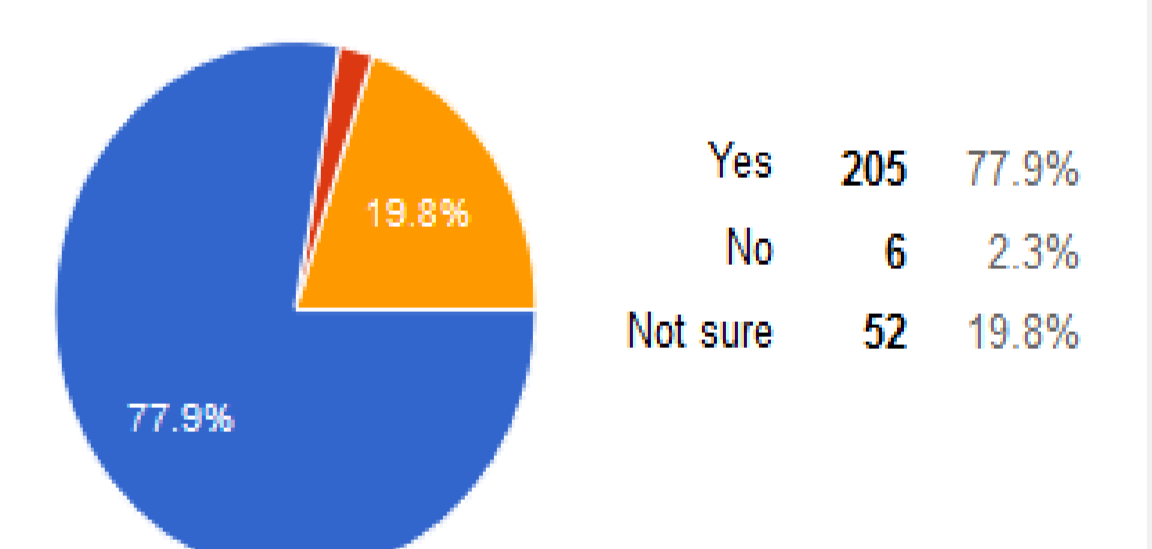


Challenges

Trust & Reputation



Crowdsourcing



Crowdsourcing enables:	Weight (%)
Improvement of recommendations	59.0
Improvement of the tourist experience	56.5
Finding new offers	52.5
Increasing tourism business sales	43.7
Identification of tourism trends and tourist profiles	41.8
Establishment of reputations	36.9
Enrichment of the tourism knowledge	37.6
Marketing	35.0

Papers

- ✓ Two papers **accepted** at the International Conference on Information and Communication Technologies in Tourism 2016 (**ENTER 2016 PhD Workshop**) [1] and at the International C* Conference on Computer Science & Software Engineering (**WENTI 2016**) [2];
- ✓ One paper **submitted** to The Knowledge Engineering Review Journal (in revision state).

References

- [1] Leal, Fátima, B. Malheiro, J. Dias, and J. Burguillo (2016). Analysis and Visualisation of Crowd-sourced Tourism Data. In *Proceedings of the 2016 International C* Conference on Computer Science & Software Engineering*.
- [2] Leal, Fátima, B. Malheiro, and J. Burguillo (2016). Recommendation of Tourism Resources Supported by Crowdsourcing. In *Proceedings of the ENTER 2016 PhD Workshop, International Conference on Information and Communication Technologies in Tourism 2016*.

