



spacebook-project.eu

D7.2.1: Initial description of results and plans for dissemination

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	Heriot-Watt University	HWU
	Kungliga Tekniska Högskola	KTH
	Liquid Media AB	LM
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Copies of reports and other material can also be accessed via the project's administration homepage,

<http://www.spacebook-project.eu>

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Executive summary

This document is a report on the Dissemination and Use Plan for the initial SPACEBOOK project results, at month 21 (of 36) of the project. The SPACEBOOK Dissemination Plan is set up to provide strategy for the communication of the project's achievements to the public and to give an overview of all publications of the project.

In the SPACEBOOK project we have developed a speech-driven, hands-free, eyes-free device for pedestrian navigation and exploration which we have evaluated through controlled task-based experiments with real pedestrians in central Edinburgh. By way of the various dissemination activities carried out by the SPACEBOOK consortium, our objective is to present the solutions developed through our research, possible applications of our research results, and their impact on the everyday life of European citizens.

1 Introduction

In the SPACEBOOK project we have developed a speech-driven, hands-free, eyes-free device for pedestrian navigation and exploration which we have evaluated through controlled task-based experiments with real pedestrians in central Edinburgh. This achievement was the result of intense design and requirements collection, followed by implementation of individual components, followed by integrating and testing the whole working system. On August 3, 2012, the SPACEBOOK project reached a critical milestone: we successfully completed an experiment ready prototype for the streets of Edinburgh. In the ensuing months we have conducted a systematic evaluation of this prototype with real pedestrians and, based on these experiences, have planned for the refinement and enhancement of this prototype in the second phase of the project.

1.1 Organization of this report

In section 2 of this report we briefly summarize our initial dissemination activities. Section 3 gives our plans for dissemination in the second phase of the project including initial commercialization activities. Section 4 concludes.

2 Initial dissemination activities

2.1 Publications

Despite our focus on fielding and evaluating an experimental prototype, we have managed to publish a fair number of research papers and articles¹[15, 8, 7, 10, 19, 20, 18, 4, 6, 5, 13, 11, 12, 16, 14, 9, 17, 3, 1, 21] as well as a public report on our GPS tracking methodology [2]. This report as well as most of our publications can be downloaded from our web-site <http://spacebook-project.eu>.

2.2 Demonstration videos

In addition we have produced and published a series of YouTube videos on the SPACEBOOK YouTube channel that explain our project concept, showcase our city model and pedestrian tracker, and, finally, demonstrate our working prototype. These demonstration videos are linked on our project website.

2.3 List of invited talks

Oliver Lemon, Invited Talk at ENLG 2011. Nancy, France, 28 September 2011.

Oliver Lemon, 2 presentations of SpaceBook at SICSA (Scottish Informatics and Computer Science Alliance), events, Edinburgh and Dundee.

¹We also have a number of papers and articles submitted for publication, although we only list work published or accepted for publication in this report.

William Mackaness. SpaceBook. Invited paper at the Smart Tourism Navigation Challengefest; Navigation: Finding facts, places and things. Edinburgh, 31 October 2011. <http://navigation2011.eventbrite.com>

William Mackaness and Robin Hill. “Challenge workshop” involving a range of SMEs and Problem Holders (e.g. Historic Scotland) following a presentation about SpaceBook. Edinburgh, 31 October 2011.

Robin Hill. Movement. Invited paper at the Edinburgh College of Art (ECA) and Edinburgh Neuroscience Exploratory Workshop, Edinburgh, 23 January 2012. <http://www.edinburghneuroscience.ed.ac.uk/eca> (Members of this working group are primarily from ECA’s School of Architecture and Landscape Architecture, whose projects include interacting with space in the urban environment and GNSS logging while exploring cities.)

William Mackaness and Phil Bartie, Dialogue Based Interaction in the Delivery of Mobile Services for Tourists. Potsdam University Berlin, 17 February 2012.

Michael Minock. ‘The SpaceBook Project’ at RAE2012, the Research Assessment Exercise of KTH 2012, Stockholm, Sweden, 13 June 2012.

Johan Boye. Invited talk at Workshop on Language, Action and Perception (APL) at The Fourth Swedish Language Technology Conference (SLTC 2012), Lund, Sweden, 24-26 October 2012. <http://clt.gu.se/dialogue-technology-lab/sltpc2012-apl>.

Andreas Vlachos. ‘The SpaceBook project: Assisting tourists in navigating and exploring a city’, AI-2012 Thirty-second SGAI International Conference on Artificial Intelligence. Cambridge, England, 11-13 December 2012.

3 Planned dissemination activities

3.1 Public reports

In addition to submitting work for publication in refereed international conferences and journals, we shall also disseminate our findings in a series of public reports that we will post on our project web-site. The following gives our schedule:

March 2013 We shall publish a report on the representation of our underlying our city model (D3.1.2) and a report on our Wizard-of-Oz studies (D.6.1.2).

June 2013 We shall publish a report on our final populated city model (D3.3.2)

July 2013 We shall publish a report on our visibility engine (D2.1.2) plus a report on our pedestrian behavior component (D2.3.2).

September 2013 We shall publish a report on our adaptive statistical interaction manager (D1.4). In addition we shall publish a report (D4.1.2) on our semantic analysis component which maps from word sequences to expressions in our meaning representation language (MRL). Likewise we shall publish a report (D4.2.2) on our response component which performs the inverse task of mapping

from MRL to word sequences. Finally we shall publish a report on our simulated user component that models the visual field and verbal behavior of a pedestrian walking through the streets of Edinburgh seeking to meet their goals.

February 2014 We will release a report (D1.3) on state approximation and generalization methods for adaptive interaction management. We shall also publish a report (D2.2) on model-based approaches to pedestrian behavior. In addition we shall publish a report (D3.2) on extraction of salient spatial descriptions from geo-tagged documents as well as a report (D4.1.3) on learning of semantic analysis components.

March 2014 We shall release a report (D6.2.3) on the final evaluation of the SPACEBOOK prototype. Accompanying the release will be a full record of our experimental results. We shall also release a report that gives a full description of the knowledge generated in the project and our final dissemination activities (D7.2.2).

3.2 Data and software releases

January 2014 We will release an open-source distribution of all the software developed in the project complete with documentation (D5.2.2). Note that this open source distribution may have only limited data coverage necessary for testing, but the process by which it may be populated will be fully documented.

February 2014 Accompanying report D4.1.3 will be a publicly released corpus of NL/MRL pairs that is basis of learning the semantic analysis component.

3.3 Commercialization activities

Liquid Media, our commercial partner, has experience in the commercialization of new services and technologies and in evaluating the business value of advanced information technologies.

In 2012 Liquid contacted representatives from various industries including two museums, two NGOs, a publisher, a game developer and an e-health provider, to get an early sense of how to proceed with the the commercialization of SPACEBOOK results. The representatives, who were either from management, marketing or R&D, had SPACEBOOK described to them in its planned final form and were asked how it could fit into their operations and their business model.

The conclusion from this series of initial discussions is that there is considerable interest in both individual components of the system as well as the system as a whole. All of the representatives expressed interest in continued updates and further discussions as the project proceeds. Some had ideas of alternative uses of a slightly altered system that, while clearly not in the scope of the project, are interesting and will be investigated.

Another concern that surfaced in these discussions, was that the willingness of the end consumer to pay for these types of services is not clear. Several voiced an opinion that this should be probably be a service free of charge. This will have to be considered when developing a realistic market plan.

During the second half of the project Liquid will investigate how SPACEBOOK can be used by cities municipalities, tourism boards and other entities. Liquid will also do a series of presentations of the SPACEBOOK and of parts of the system to interested parties to seek further funding through VC or directly by interested parties.

Discussions with the previously contacted representatives and ones that are added along the course of the project will continue throughout the project and be expanded upon. As the technologies are maturing the discussions will be more specific towards the needs of the potential partners and the specific use cases that crystallize around those.

Market and business plans will be developed in cooperation with external funding partners at a later stage and with regards to the specific needs of the product.

3.4 SPACEBOOK workshop

We shall organize a dedicated one day SPACEBOOK workshop in order to demonstrate our prototype, best practices and project accomplishments. Our goal is to hold this workshop in Edinburgh in late Summer or early Fall of 2013. The invitation to this workshop will be widely distributed as we intend for the audience to represent a mix between scientific and technical as well as business interest parties.

4 Conclusions

SPACEBOOK represents a novel *cognitive task artifact* that fundamentally changes how we go about doing something. For example SPACEBOOK might embolden pedestrians to explore places they might otherwise have held back from. Or it might enable pedestrians to more quickly develop a deeper understanding of place and connect together the entities that support our understanding of the world in which we live. Only by constructing and deploying such a cognitive task artifact can we see what changes it might bring. In the first phase of the SPACEBOOK project we have built such an artifact.

In the second phase of the project we will extend, refine and experiment with the SPACEBOOK prototype, reporting our findings widely. In addition to publishing papers on our results, we shall release an open source version of our prototype as well as corpora and raw data that we have collected through our studies with real subjects in Edinburgh. We shall also release more videos on the SPACEBOOK YouTube channel. Finally we will organize a SPACEBOOK workshop involving members of the scientific and business communities interested in speech-based location-based services.

Project Publications

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