Ambient Earth

Internship report — 1st draft

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Preface & Acknowledgements

During the period of September to November 2006 I have been working at the Center for Analysis & Design of Intelligent Agents (CADIA) research lab of the School of Science and Engineering of the Reykjavík University (RU) in Iceland.

I would like to thank Kristinn Thórisson of RU for giving me this opportunity.

When I considered doing part of my studies abroad, there was no agreeement with any Icelandic institution yet. I had thought of an internship at a Scandinavian university and by coincidence I discovered that just weeks before an agreement was signed between Technical University Eindhoven (TU/e) and RU.

Since Iceland was high on my "wish to visit once" list, this was a perfect chance. From this position I would therefore also like to thank Jan-Friso Groote (TU/e) and Luca Aceto (RU) for initiating this agreement.

Others who made my stay a pleasant one were the people from the International Offices of RU and the University of Iceland, my fellow students both at CADIA and the Erasmus Intensive Language Course in August.

I have never experienced anything like this before.

Thank you very much!

Contents

1 Introduction

This document describes the activities concerning my internship at Reykjavík University. The introduction, which you are reading right now, describes the structure of this document.

Chapter 2 describes the initial assignment as given by Kristinn R. Thórisson of Reykjavík University. Since the final product differs from this first idea, the changes and their reasoning are given.

In Chapter 3 a planning is proposed. It is taken from the planning as written in the logbook which I held online at `http://nemendur.ru.is/christian06/logbook.html`.

The design of the system to be built is given in Chapter 4. However, since the complete design is in a separate document, this chapter is merely an introduction and the design document is appended to this internship report.

The complete internship is evaluated in Chapter 5. This will contain learning points, which aspects went according to expectations and what can be improved.

The document itself is concluded in Chapter 6.

2 Assignment

The original assignment as written down by Kristinn Thorisson.

> The "Semantic Ambient Web Monitor" project's goal is to give people a sense of online acitivity and community interest regarding particular topics of interest and discussion. The prototype will have a simple small area where elements related to online activity – each dot representing e.g. a posting on an online forum or a blog site about the particular topic of interest. Each corner represent a concept related to the topic; If the topic to be monitored is "artificial intelligence", one corner might represent "humanoid robots", another might represent "artificial neural networks", a third could be "expert systems" and a fourth could be "machine learning". As the dots move they get pulled stronger towards the center the older they are; the more they relate to a concept the closer they get pulled towards the corner representing that concept.
>
> This produces very "holistic" patterns that can be interpreted in an instant by an onlooker: An equal distribution of dots would mean that all concepts are discussed equally, on average, in all postings. An oval orbit would mean that the majority of postings are about the concepts in oposite corners of the square, etc. If the dots left trails one could see how things change over time, e.g. days or months. Snapshots of the square, e.g. one per day or month, would give you a visual history of how the disucssion has changed over time regarding those concepts.
>
> The methodology that will be used to build the monitor enables a very incremental, modular approach. The software will be made open-source and thus others can build monitors for other topics than those chosen in this project.

3 Planning

4 Design

5 Evaluation

6 Conclusion