First Aid for Information Chaos in Wikis:

Collaborative Information Management Enhanced Through Language Technology

Nicolai Erbs, Daniel Bär, Iryna Gurevych, Torsten Zesch

UKP Lab, Technische Universität Darmstadt
http://www.ukp.tu-darmstadt.de

Abstract

We present a system to prevent information chaos in wikis as one example of an information management system. The system utilizes Natural Language Processing techniques to support users with respect to the typical tasks of adding, organizing, and finding content.

1 First Aid for Information Chaos in Wikis

In recent years, the Web has turned into a ubiquitous information space and a collaborative information management system. Wikis are one of the most popular tools for managing unstructured textual information. While wikis have become widely adopted in corporate and private settings (Buffa, 2006), they suffer from a number of disadvantages resulting from their distributed and collaborative way of construction. Over the time, this leads to significant usability limitations which make it more difficult to contribute (Désilets et al., 2005).

In this poster, we show how these issues can be targeted utilizing Natural Language Processing (NLP) techniques, such as keyphrase extraction, topic segmentation, text summarization, or link discovery. Gurevych and Zesch (2008) introduce the overall idea of supporting wiki users utilizing NLP techniques, while Hoffart et al. (2009) describe the actual system architecture of the enhanced wiki.
The poster presents the Wikulu system and highlights the major enhancements of collaborative information management in wikis. It describes our approach to link discovery in more detail as one particular example of an NLP technique utilized by the Wikulu system. Finally, selected results of the user study as well as some future research directions are discussed.

While wikis represent an excellent and particularly interesting application area of collaborative information management, the presented NLP techniques could be applied to any means of unstructured information management, e.g. in scientific information management for research papers.

2 Acknowledgements

The Wikulu project has been supported by the Klaus Tschira Foundation under grant No. 00.133.2008. The utilized NLP techniques have been supported by the Volkswagen Foundation as part of the Lichtenberg-Professorship Program under grant No. 1/82806.

3 Literature


