Introduction

Research Question:

The research question this dissertation seeks to answer is to what degree is it possible to offer personalisation, specifically adaptive navigation and presentation, as a service to different content management systems without altering the core code of those systems?

State of the Art

- The web is in need of personalisation and adaptation due to the sheer volume of content.
- While Adaptive Hypermedia systems do currently exist, they only provide adaptation within their own ecosystem.
- The next stage in AH is to bring it to the open web.
- Content Management Systems allow website owners to easily organise and publish content.
- Thanks to their wide spread adoption, they are the perfect candidate for adaptation.

Adaptive Web Service

- The adaptation is taken care of by an adaptive web service.
- The web service maintains a model of the users interests, based on the CMS pages metadata.
- The adaptive web service accepts content and menus in XML and returns adapted XML for processing on the CMS.

Research Challenges

- Analyse the architecture of two distinct CMSs.
- Create two bespoke plugins which can alter the rendered HTML to inject adaptive components.
- Provide adaptation as a service to multiple CMS
- Maintain all the features of the CMSs in question.

Conclusion

- Adaptation can be supportable in open source CMSs with careful module implementation.
- This opens up the possibility of adaptations in potentially millions of web sites.
- Page performance is minimally affected by adaptation. Roughly 10% increase in total page load time.

Further Information

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