Rebuilding WERTi: Providing a Platform for Aiding Second Language Acquisition

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In the course of this presentation I want to provide insight into the development process of my re-implementation of WERTi, a system to aid second language acquisition of adult learners. The original implementation of WERTi was capable of requesting news articles from a certain news web site[1] and perform different kinds of input enhancements on it.

While the original implementation was written in the programming language *Python*, this new design is rooted in *Java* technologies and makes use of several frameworks:

- UIMA - IBM's *Unstructured Information Management Architecture*, used to process web contents, find natural language and annotate it according to its linguistic features.

- Java Servlets and Server Pages - for hosting the web content and executing server side processing.

- GWT - The *Google Web Toolkit*. This technology compiles native *Java* code to *JavaScript* which is then executed on the client side. It also eases the process of integrating Remote Procedure Calls to communicate between server and client side.

The new *Java* implementation now supports arbitrary web sites as inputs, multiple languages and has some new features regarding input enhancement. Overall the development focus rested on providing a flexible platform that can be easily extended to include more functionality. UIMA is used on the server side to provide a flexible analysis framework and GWT, on the client side, provides an easy way to enrich content of web pages.

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[1] http://www.reuters.com