

Computational Grammar Development: What is it good for?

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This talk provides a look at computational grammar development in the context of ParGram, an international effort at building grammars for languages as diverse as English, French, Welsh, Urdu, Japanese, Indonesian, Arabic and Murrinh-Patha. The aim is to build these grammars using not only the same theoretical assumptions (based on Lexical-Functional Grammar) but also the same computational methods.

The talk will provide examples of challenging/interesting empirical phenomena across languages and show how they can be dealt with concretely via a computational implementation. The underlying development platform is XLE and the talk will focus on the various powerful analysis possibilities this system allows for, including a version of Optimality Theory and an integration of statistical information. The talk will also be concerned with the assumptions about the underlying grammar architecture that are made, e.g., with respect to the morphology-syntax and the syntax-semantics interface.

While the process of computational grammar development is, of course, inherently interesting, we will also discuss the broader uses of computational grammars, for example in systems like IBM's Watson, by companies like Powerset and as explored for web browsers like Bing.