Automatic proficiency level prediction for Intelligent Computer-Assisted Language Learning

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There is a substantial difference between the amount and type of words and grammatical structures that beginner language learners can understand and produce compared to their more advanced peers. Being able to capture automatically this difference in complexity facilitates providing learners with an optimal challenge to increase their proficiency and it can also help monitor their progress.

In her doctoral thesis, Ildikó Pilán presents an automatic method for linguistic complexity analysis and explores how this can be used for locating appropriately difficult materials for learners, as well as for evaluating their writing. With the use of natural language processing tools and machine learning, a classification system is developed to determine the complexity of Swedish texts based on the linguistic characteristics of example texts with known language learning levels. Ildikó proposes a framework that integrates a sentence-level adaptation of this system with a number of additional aspects for finding sentences suitable for generating exercises in any type of digital text. She also shows how linguistic complexity information from texts appearing in coursebooks can be employed for evaluating learner-written texts in terms of proficiency levels.

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