



# Representing interlingual meaning in lexical databases

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## Abstract

In today's multilingual lexical databases, the majority of the world's languages are under-represented. Beyond a mere issue of resource incompleteness, we show that existing lexical databases have structural limitations that result in a reduced expressivity on culturally-specific words and in mapping them across languages. In particular, the lexical meaning space of dominant languages, such as English, is represented more accurately while linguistically or culturally diverse languages are mapped in an approximate manner. Our paper assesses state-of-the-art multilingual lexical databases and evaluates their strengths and limitations with respect to their expressivity on lexical phenomena of linguistic diversity.

**Keywords** Language diversity · Lexical semantics · Multilingual lexical database · Untranslatability

## 1 Introduction

According to the Ethnologue (Eberhard et al. 2022), there are around seven thousand languages actively spoken in the world today. Despite the immense value—cultural, communicational, economic, etc.—embedded in languages and dialects, whether living or ancient, most computational resources on language have so far focused on a small subset of them, namely those spoken in the richest parts of the world (Joseph et al. 2010). Suggestive studies from Kornai (2013) and Oxford (2015) articulate how digitally less favoured

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