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# Machine Translation and the Challenge of Cross-Lingual Ambiguity

Rachel Bawden<sup>\*†1</sup>

<sup>1</sup>Automatic Language Modelling and Analysis Computational Humanities (ALMAnaCH) – L’Institut National de Recherche en Informatique et en Automatique (INRIA) – France

## Abstract

Ambiguity has been a major challenge for natural language processing since the beginning of the field. For Machine Translation (MT), ambiguity is an issue when source words or sentences with several meanings result in different translations in the target language. For example, if it’s pool time, is it time to play billiards or go for a swim? If the fans are out of order, is there a problem at the football (*supporteurs*) or a ventilation problem (*ventilateurs*)? Traditional MT was carried out sentence by sentence, and such sentences could be lacking the context necessary to choose a correct translation. In this talk, I will be presenting the problem faced when trying to take context into account, describing both some early challenges in the field and more recent work, including extending the notion of context from linguistic to visual context. A highly important issue for contextual MT is evaluation, and I will also focus on issues in MT evaluation, including the evaluation of how well MT models exploit context.

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\*Speaker

†Corresponding author: [rachel.bawden@inria.fr](mailto:rachel.bawden@inria.fr)