Evaluating and Developing Methods of Generating Code-Switched Text

Oral Project Proposal, 07-300

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Code-switching is increasingly common in informal digital communication.

ES:	Vi que	tu mirada	ya estaba	llamándome
ES-EN:	Vi que	tu look	ya estaba	calling me
EN:	I saw that	your look	was already	calling me

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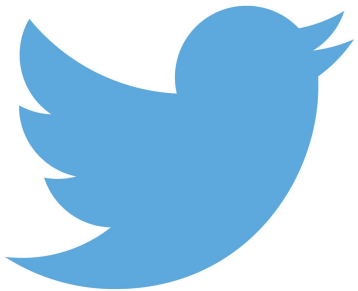
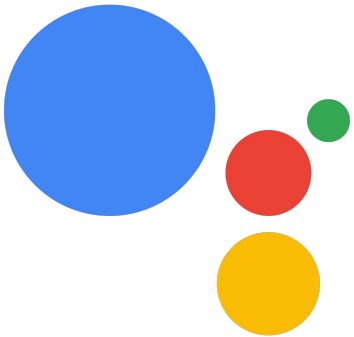
Example Domains


Training state-of-the-art models for code-switching requires a high volume of code-switched (CS) data.

- SOTA models are neural, requiring large amounts of training data
- Real CS data is harder to collect than monolingual data, and is often noisy

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Solution: Generate synthetic CS data.

Generating high-quality synthetic CS text will improve the performance of language technologies in an unexplored domain of information and communication.

What defines quality?

- Similarity to real CS text
- **Usefulness in model training**

The first part of the project is the evaluation of existing methods of generating CS text.

Types of Methods

- Non-neural (substitutive) methods
- Neural (generative) methods

Types of Resources

- Monolingual data $
- Translation lexicon $$
- Bilingual parallel data $$
- Translation engine $$$
- Real CS data $$$$$

The second part of the project is improving upon a generative technique.

Neural Method

- Reduce resource cost by reducing
  - **Quantity** of real code-switched data required
  - **Quality** of real code-switched data required
    - e.g. blog posts vs tweets

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