Multilingual Computation: its Indispensability in Natural Language Processing

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Multilingual computation is increasingly becoming important for CL/NLP (computational linguistics/Natural Language Processing), where strategies like zero-shot and few-shot learning are gaining ground in the face of resources (i.e., language data) scarcity. The hope is that resources and tools created for one language can help computation for other less resourced languages, helping requirements like automatic translation, sentiment analysis, information extraction etc. New results are appearing in NLP that show the efficacy of taking machine learning models trained on English and using them for NLP of languages like Turkish, Tamil, Amharic etc. Lexical, structural and morpho-syntactic overlap can help such "transfer" learning which is a step towards creating language agnostic NLP. In this talk, we will describe some of our work on multilingual computation, spanning many areas of NLP like translation, sentiment and emotion analysis, question answering etc. Indian languages will be kept in focus and advances in ILNLP (Indian Language NLP) will be described.

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