

CS60075

Natural Language Processing

Autumn 2020

Lecture 1 : Introduction

Sep 2 2020

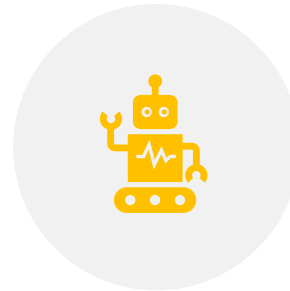
People

- Teacher:
 - Sudeshna Sarkar
- Teaching Assistants:
 - Alapan Kuila
 - Aniruddha Roy
 - Anusha Potnuru
 - Uppada Vishnu
- Students:

Natural Language Processing



Developing systems that allow computers to communicate with people using natural language.



Concerns how computational methods can aid the understanding of human language.

Automating Language

- Analysis: Language \rightarrow Representation
- Generation: Representation \rightarrow Language
- Acquisition: Obtaining the representation and necessary algorithms, from knowledge and data

NLP Goals

Goals can be very ambitious

- True text understanding
- Good quality translation

Goals can be practical

- Question Answering
- Machine Translation services on the Web
- Conversational Agents
- Summarization

Natural language technology not yet perfected

- But still good enough for several useful applications

Course Focus

Linguistic Issues

Modeling Techniques

- Probabilistic
- ML

Engineering Methods

Multilinguality

Science Goal

- Understand the way language operates

Engineering Goal

- Build systems that analyse and generate language

What does it mean to “*know*” a language?

