***NLP***

* **Natural Language Processing (NLP)** = applying ML models to text + language, teaching machines to understand what is said in spoken + written word
* Whenever you dictate something into your mobile device that is then converted to text, that’s an NLP algorithm in action.
* Can also use NLP on a text review to predict if a review is a good one or a bad one, on an article to predict some categories of the articles you are trying to segment, on a book to predict genre
* It can go further 🡺 build a machine translator or a speech recognition system (using classification algorithms to classify language)
* Most NLP algorithms are classification models = Logistic Regression, Naive Bayes, CART, **Maximum Entropy** (related to Decision Trees), **Hidden Markov Models** (models based on **Markov processes**)
* A very well-known model in NLP = the **Bag of Words model** = used to preprocess texts to classify before fitting the classification algorithms on the observations containing the texts.