**Machine Learning** 

Natural Language Processing (NLP)

### Traitement du langage : données

#### Classification:

- thème/genre (gutenberg.org : 57k livres)
- auteur (gutenberg.org : 57k livres)
- sentiment (Kaggle movie review : 222k commentaires rotten tomatoes)
- reconnaissance d'entités nommées (Kaggle Annotated Corpus for NER : 1.3M tags)
- ..



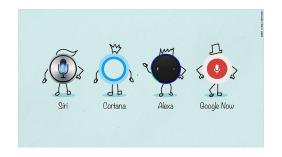
## Traitement du langage : données

#### Compréhension:

- Question/réponses (SQUAD : 150k questions)
- Traduction (europarl : 450k phrases alignées)
- ..



### Transcription et synthèse de la parole





### Identification du locuteur





#### Chatbot

```
Welcome to
                                                   AAAAA
                                                  AA AA
                                                  AAAAAA
                   EEEEEE LLLLLL IIII 2222222 AA
  Eliza is a mock Rogerian psychotherapist.
  The original program was described by Joseph Weizenbaum in 1966.
  This implementation by Norbert Landsteiner 2005.
ELIZA: Is something troubling you ?
      Men are all alike.
ELIZA: What is the connection, do you suppose ?
      They're always bugging us about something or other.
ELIZA: Can you think of a specific example ?
YOU: Well, my boyfriend made me come here.
ELIZA: Is it important to you that your boyfriend made you come here ?
YOU: He says I'm depressed much of the time.
ELIZA: I am sorry to hear that you are depressed.
YOU: It's true. I am unhappy.
ELIZA: Can you explain what made you unhappy ?
```



#### Chatbot





#### Moteur de recherche





#### Extraction de données



Démo reconnaissance d'entitées nomées



### Analyse de sentiments



Démo analyse de sentiments



#### Résumé

Input: Article 1st sentence	Model-written headline
metro-goldwyn-mayer reported a third-quarter net loss of dlrs 16 million due mainly to the effect of accounting rules adopted this year	mgm reports 16 million net loss on higher revenue
starting from july 1, the island province of hainan in southern china will implement strict market access control on all incoming livestock and animal products to prevent the possible spread of epidemic diseases	hainan to curb spread of diseases
australian wine exports hit a record 52.1 million liters worth 260 million dollars (143 million us) in september, the government statistics office reported on monday	australian wine exports hit record high in september



#### **Traduction**



#### Démo traduction de DeepL

