

Natural Language Processing (NLP)

1. Machine Translation
- 2. Speech Recognition**
3. Sentiment Analysis
- 4. Question Answering**
5. Automatic Summarization
- 6. Chatbots**
7. Market Intelligence
- 8. Text Classification**
9. Character Recognition
- 10. Spell Checking**
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Machine Translation

"Il est impossible aux journalistes de rentrer dans les régions tibétaines"

Bruno Philip, correspondant du "Monde" en Chine, estime que les journalistes de l'AFP qui ont été expulsés de la province tibétaine du Qinghai "n'étaient pas dans l'illégalité".

Les faits Le dalaï-lama dénonce l'"enfer" imposé au Tibet depuis sa fuite, en 1959

Vidéo Anniversaire de la rébellion tibétaine: la Chine sur ses gardes



"It is impossible for journalists to enter Tibetan areas"

Philip Bruno, correspondent for "World" in China, said that journalists of the AFP who have been deported from the Tibetan province of Qinghai "were not illegal."

Facts The Dalai Lama denounces the "hell" imposed since he fled Tibet in 1959

Video Anniversary of the Tibetan rebellion: China on guard



- Translate text from one language to another

Speech Recognition



Image:
Wikipedia

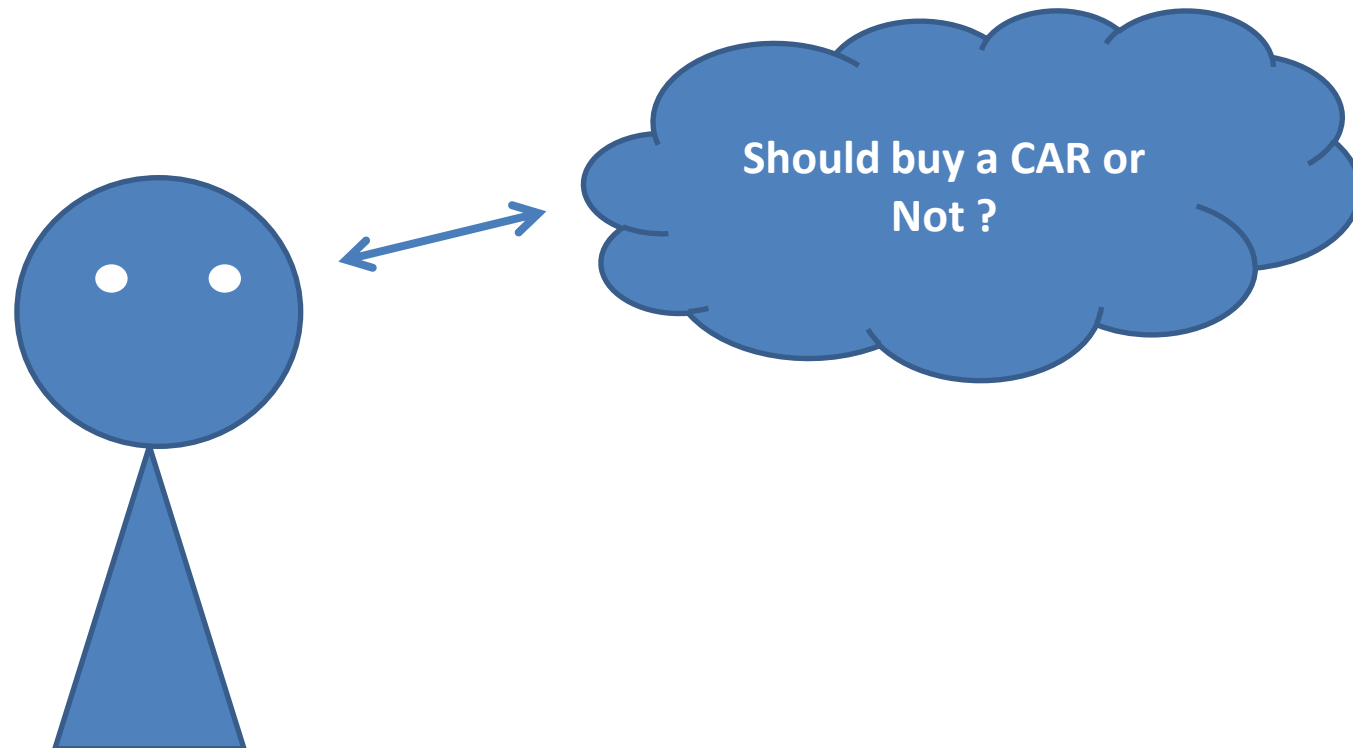
Example Cortana, Google Assistant, Siri

Siri contains :

- Speech recognition
- Language analysis
- Dialog processing
- Text to speech

Sentiment Analysis

- Also known as opinion mining or emotion AI.
- Data mining that measures the **inclination** of people's opinions.



Question Answering

Question answering (QA) is concerned with building systems that automatically answer questions posed by humans in a natural language.

Question-Answering applications: Siri, OK Google, chat boxes and virtual assistants



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any US states' capitals are also their largest cities? Search

Web

Your search - **How many US states' capitals are also their largest cities?** - did not match any documents.

Suggestions:

- Make sure all words are spelled correctly.
- Try different keywords.
- Try more general keywords.
- Try fewer keywords.

Google Home - Business Solutions - About Google

[capital of Wyoming: Information From Answers.com](#)
Note: click on a word meaning below to see its connections and related words.
The noun **capital** of **Wyoming** has one meaning: Meaning #1 : the **capital**.
[www.answers.com/topic/capital-of-wyoming](#) - 21k - [Cached](#) - [Similar pages](#)

[Cheyenne: Weather and Much More From Answers.com](#)
Chey·enne (shī-ăn ' , -ěăn ') The **capital** of **Wyoming**, in the southeast part of the state near the Nebraska and Colorado borders.
[www.answers.com/topic/cheyenne-wyoming](#) - 74k - [Cached](#) - [Similar pages](#)

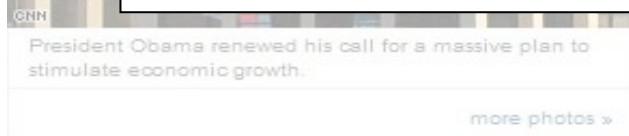
Automatic Summarization

WASHINGTON (CNN) – President Obama's inaugural address was cooler, more measured and reassuring than that of other presidents making it, perhaps, the right speech for the times.



STORY HIGHLIGHTS

- Obama's address less stirring than others but more candid, analyst says
- Schneider: At a time of crisis, president must be reassuring
- Country has chosen "hope over fear, unity of purpose over ... discord," Obama said
- Obama's speech was a cool speech, not a hot one, Schneider says



President Obama renewed his call for a massive plan to stimulate economic growth.

[more photos »](#)

Some inaugural addresses are known for their soaring, inspirational language. Like John F. Kennedy's in 1961: "Ask not what your country can do for you. Ask what you can do for your country."

Obama's address was less stirring, perhaps, but it was also more candid and down-to-earth.

"Starting today," the new president said, "we must begin

his first inaugural in 1933, "The only thing we have to fear is fear itself." Or Bill Clinton, who took office during the economic crisis of the early 1990s. "There is nothing wrong with America that cannot be fixed by what is right with America," Clinton declared at his first inaugural.

Obama, too, offered reassurance.

"We gather because we have chosen hope over fear, unity of purpose over conflict and discord," Obama said.

Obama's call to unity after decades of political division echoed Abraham Lincoln's first inaugural address in 1861. Even though he delivered it at the onset of a terrible civil war, Lincoln's speech was not a call to battle. It was a call to look beyond the war, toward reconciliation based on what he called "the better angels of our nature."

Some presidents used their [inaugural address](#) to set out a bold agenda.

Chatbots

The first chatbots appeared in the 1960s

NLP has become the basis for creating chatbots, and although such systems are not so perfect they easily can handle standard tasks.

Market Intelligence

1. Marketers also use NLP to search for people with a likely or explicit intention to make a purchase.
2. **Behavior on the Internet, maintaining pages on social networks and queries to search engines provide a lot of useful unstructured customer data.**
3. Selling the right ad for internet users allows Google to make the most of its revenue.
4. **Advertisers pay Google every time a visitor clicks on an ad (around \$50).**

Discovering Knowledge

America Online ← → **company**

America Online, LLC (commonly known as **AOL**) is an American global Internet services and media company operated by Time Warner. It is headquartered at 770 Broadway in Midtown Manhattan, New York City.^{[2][3]} Founded in 1983 as **Quantum Computer Services**, it has franchised its services to companies in several nations around the world or set up international versions of its services.^[4]

America Online



Type

Subsidiary of Time Warner

Founded

1983 as *Quantum Computer Services*

Corpora

"Large database of text, sound and images."

Examples of Corpora

Brown Corpus. A tagged corpus of about a million words put together at Brown University during the 1960s and 1970s.

Lancaster Oslo Bergen (LOB) Corpus: A British English replication of the Brown Corpus

Penn Treebank. A corpus of parsed sentences based on text from the **Wall Street Journal**.

WordNet: An electronic dictionary of English. Words are organized into a hierarchy, rather like a thesaurus. Each node consists of a synset of words with identical or near identical meanings.

Corpora

Brown Corpus Sample (untagged)

A01 0010 The Fulton County Grand Jury said Friday an investigation
A01 0020 of Atlanta's recent primary election produced "no evidence" that
A01 0030 any irregularities took place. The jury further said in term-end
A01 0040 presentments that the City Executive Committee, which had over-all
A01 0050 charge of the election, "deserves the praise and thanks of the
A01 0060 City of Atlanta" for the manner in which the election was conducted.

Brown Corpus Sample (tagged)

A01_FO 0010_MC The_AT Fulton_NP1 County_NN1 Grand_JJ Jury_NN1 said_VVD Friday_NPD1 an_AT1 investigation_NN1
A01_FO 0020_MC of_IO Atlanta_93 's_03 recent_JJ primary_JJ election_NN1 produced_VVD "_" no_AT evidence_NN1 "_" that_CST
A01_FO 0030_MC any_DD irregularities_NN2 took_VVD place_NN1 ._
The_AT jury_NN1 further_RRR said_VVD in_II term-end_NN1
A01_FO 0040_MC presentments_NN2 that_CST the_AT City_NN1 Executive_NN1 Committee_NN1 ,_ which_DDQ had_VHD over-all_RR
A01_FO 0050_MC charge_NN1 of_IO the_AT election_NN1 ,_ "_" deserves_VVZ the_AT praise_NN1 and_CC thanks_NN2 of_IO the_AT
A01_FO 0060_MC City_NN1 of_IO Atlanta_NP1 "_" for_IF the_AT manner_NN1 in_II which_DDQ the_AT election_NN1 was_VBDZ conducted_VVN ._

