

Artificial Intelligence Overview

Artificial Intelligence Overview

Quote

„As soon as it works, no one calls it AI any more.”

John McCarthy

Artificial Intelligence Overview

Present and Future

Narrow AI

- Google Map
- Google Search

Narrow AI

- Self-driving cars

Broad (General) AI

- Computers pass Turing test
- Existential threat

- AI Assistant

Present

Near Future

Far Future???

Artificial Intelligence Overview

Artificial Intelligence and their subgroups

Examples: AI Assistant

- Siri, Alexa, Cortana, Google Now
- Voice recognition systems use Machine Learning to imitate human interaction
- able to have „natural“ conversations indistinguishable from humans



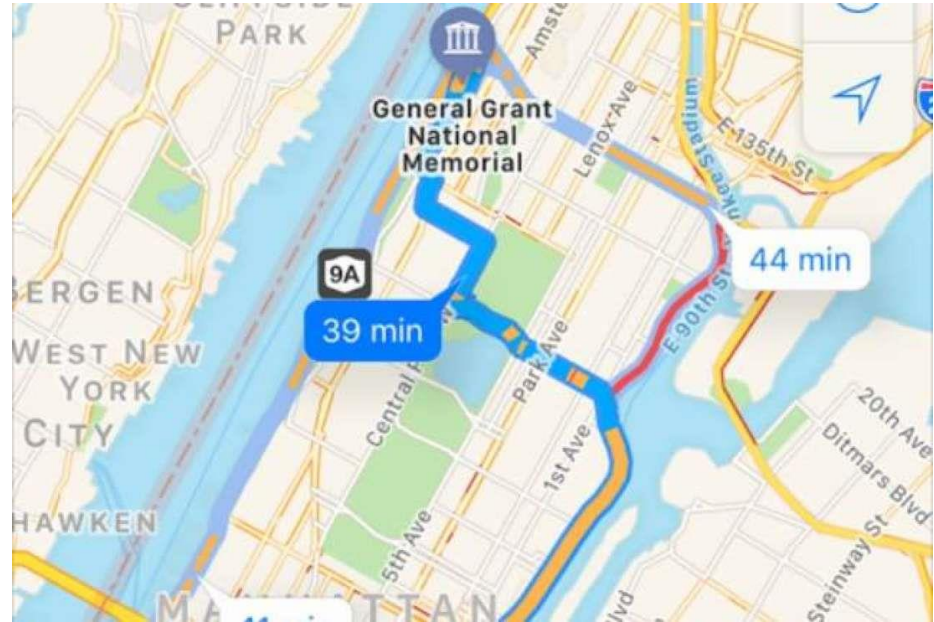
Source: https://gigazine.net/gsc_news/en/20170305-alexa-siri-cortana-all-female

Artificial Intelligence Overview

Artificial Intelligence and their subgroups

Examples: Google Maps Traffic

- Analyses speed of traffic through anonymous location data from smartphones
- Reduces travel time by suggesting fastest routes



Source: <http://mentalfloss.com/article/92958/how-does-google-maps-know-where-traffic>

Artificial Intelligence Overview

Artificial Intelligence and their subgroups

Examples: Google Search

- Biggest search engine
- Offers recommendations
- Suggestions based on previous user searches



Google-Suche

Auf gut Glück!

Künstliche Intelligenz von Google: [Hilfe in Not- und Katastrophenfällen](#)

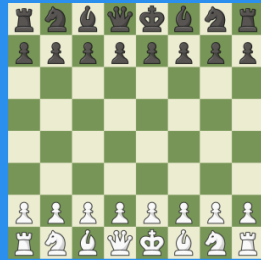
Source: www.google.de

Artificial Intelligence Overview

Artificial Intelligence and their subgroups

- Artificial Intelligence
 - broadest term
 - Machines adapt to different situations
- Machine Learning
 - Statistical techniques provide computers ability to „learn“
- Deep Learning
 - Inspired by human brain
 - Artificial Neural Networks (ANNs) mimic structure of the brain
 - Discrete layers of neurons and connections of neurons make up an ANN

Artificial Intelligence



Machine Learning



Deep Learning

