Due to new advancements in machine learning research, we are now capable of generating photorealistic images from a short descriptive text only.

Recommendation engines try to predict the “rating” or “preference” a user would give to an item. Accordingly, to the user interesting itmes can be shown, having a higher probability to be purchased.

An ML algorithm tha automates pricing process across the entire value-added chain. Ideally, it sets automatically the optimal price for every product in the product range, every times. As a result, it can sustainably increase both customer retention and earnings.

Simple, repetitive and partually inhumane tasks that are currently being carried out by people can soon be displaced by a robotic workforce. Especially because of he latest achievements in reinforcement learning, robots are now acting/”thinking” much more autonous, performing more and more complex (physical) tasks.

As the deployment of sensor technnologies continues to be core to the development of smart parking, many other technology innovations are also enabling more adaptable systems-including cameras, wirless communications, data analytics, induction loops, smart parking meters, and advanced algorithms.

Digital twin refers to a digital replica of physical assets, processes, people, systems and devices that can be used for various purposes. As the model constantly updates itself with new information about the system, external data sources, and other assets, machine learning algorithms provide valuable insights about load characteristics and other vital information.

A smart voice assistant is a software that can understand and respond to commands spoken in natural language. For example, a user can play a video on Youtube or asking for products information just by commanding the smart assistant to do so.

Image recognition is the ability to identify objects, places, people, and actions in images. Image recognition is used to perform a large number of machine-based visual tasks, such as labeling the content of images with meta-tags, performing image content search and guiding autonomous robots, self-driving cars, and accident avoidance systems.

Use generative algorithems to create a myriad of different 3D objects, such as chairs, tables etc. Further, the different features of these 3D objects can be added or subtracted from a model. For instance, armrests can be added or subtracted from a chair.

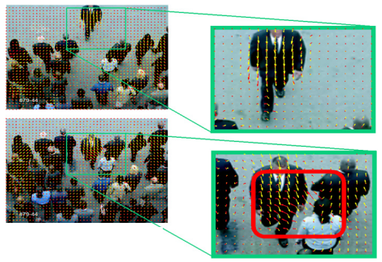
A chatbot is a compter program that simulates human conversation through voice comands or text chats or both. A chatbot is an AI feature that can be embedded into any webpage. It can recommend offers, answer questions or guide customers through online and offline stores.

Emotion recognition is the process of identifying human emotion, most typically from facial expressions as well as from verbal expressions. This is something that humans do subconsiously.

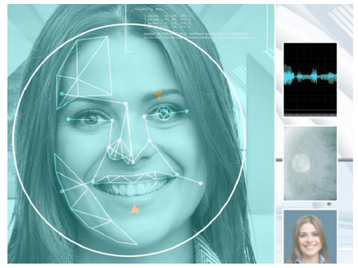
Analyzing any mentions such as emails and other requests, reviews, blog posts, articles, etc., a sentiment analysis can extract with what sentiment (good mood vs. bad mood, potentially other emotions: anger, fear, happiness, etc.) it was written. Futher, topics can be excluded to see what topic is most important for the customers, unveiling pain points, potential solutions, and other conclusions.

Modeling human behaviors and activity patterns for recognition or detection of special events: thre are a lot of methods for building intelligent vision systems aimed at scene understanding and making a correct semantic inference from the observed dynamics or moving people. Most applications are in surveillance, video content retrieval, and human-computer interfaces.

Video-based human behavior recognition



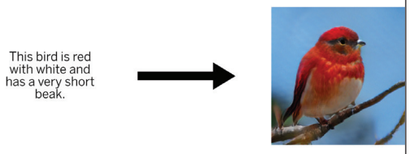
Emotion recognition



Smart voice assistants

Robotic workforce
distributing, storting, and performing other (physical) tasks

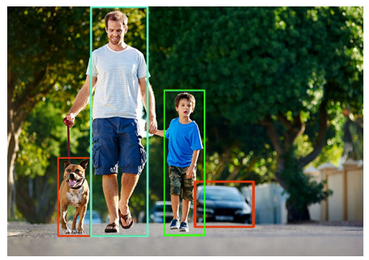
Generative AI
text-to-image synthesis



NLP
Sentiment analysis and topic modeling

Chat bots
(NL search)

Image recognition



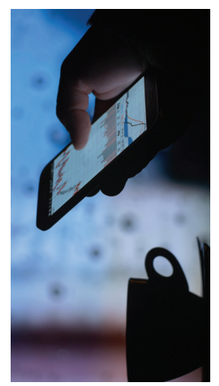
AI based automatic car parking system

Recommendation engines

Generative AI
3D objects generation

Digital twins
AI-based virtul replicas

Real-time pricing and incemtives



courtesy of Alstran from the Innovation Pioneers Summit 2018 @ AI workshop with IKEA, Altran and Ambient Society