30
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https://www.wissenschaftsjahr.de/2019/

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Lernende Systeme
DIE PLATTFORM FÜR KÜNSTLICHE INTELLIGENZ
DIE PLATTFORM
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INFOTHEK
NEWSROOM
https://www.plattform-lernende-systeme.de/videos.html
NEWS
Künstliche Intelligenz auf dem Vormarsch!
KI
Eine kurze Geschichte der KI
Künstliche Intelligenz (KI) seit ihren Anfängen: Unser Erklärfilm illustriert verschiedene Phasen der Technologieentwicklung. Meilensteine bei KI-Anwendungen sowie künftige Herausforderungen.

„Wo wollen wir hin?
Die Gesellschaft der Zukunft ist eine Gesellschaft freier, selbstbestimmter Menschen...

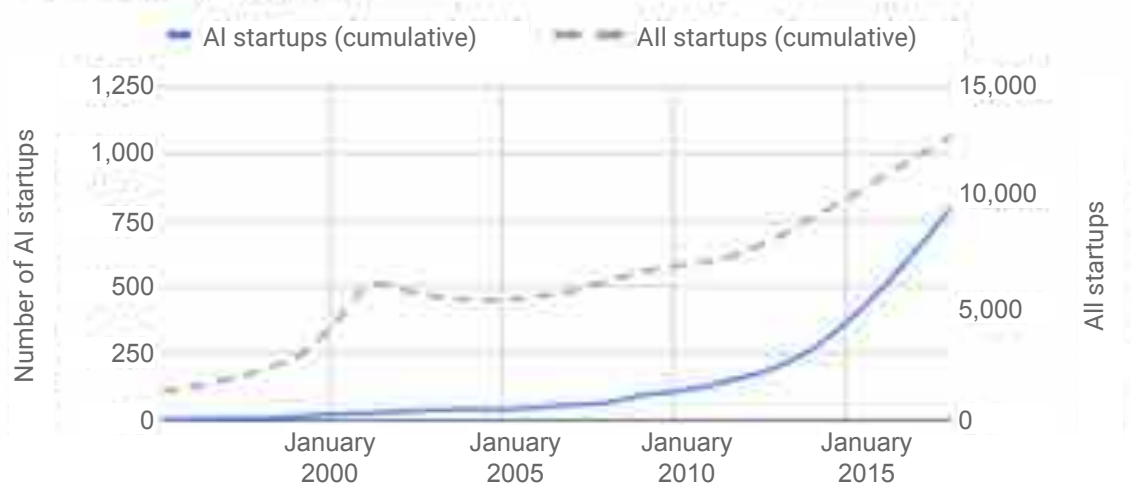
...während im Hintergrund nimmermüde intelligente Maschinen den Volkswohlstand erwirtschaften.“
(Abschied vom Monetozän)

https://www.randomhouse.de/Buch/Jaeger-Hirten-Kritiker/Richard-David-Precht/Goldmann/e542926.rhd

https://blaulichtreport-saarland.de/2018/02/vw-polo-fluechtet-vor-polizei-in-saarbrueclem/

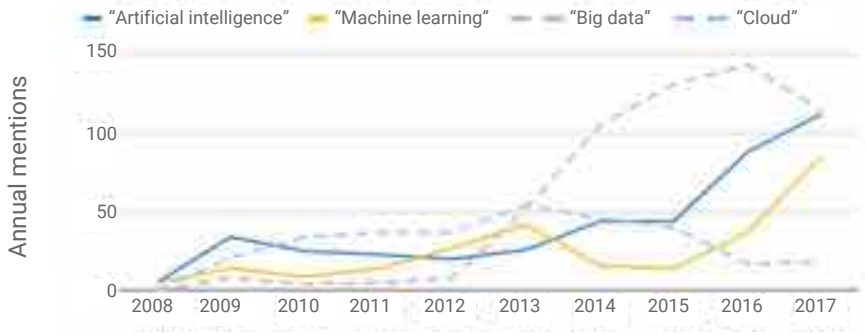
Stats & Numbers

AI startups (U.S., January 1995 – January 2018)
Source: Sand Hill Econometrics



http://www.aiindex.org

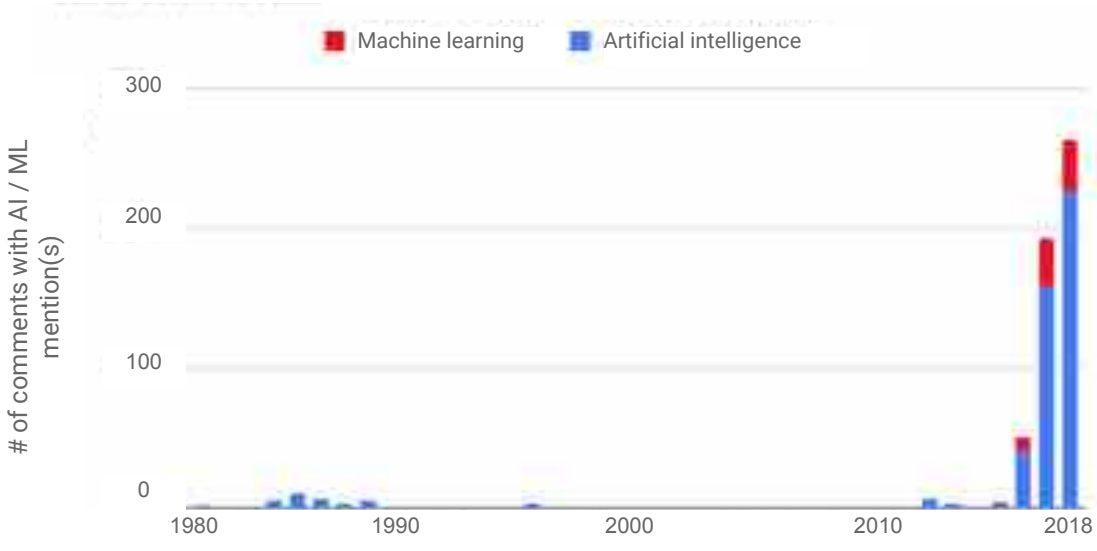
Company earnings calls mentions — Sum of other industries (2008—2017)
Source: Prattle



Top 10 companies — AI mentions (2017)
NVIDIA Corporation (93), LivePerson (50), Pegasystems (44), Facebook (40), Axon Enterprise (37), salesforce.com (36), Intel Corporation (35), Microsoft Corporation (34), Genpact Limited (34), Applied Materials (33)
Top 10 companies — ML mentions (2017)
Alphabet(57), Nasdaq (26), ServiceNow (21), Progress Software Corporation (21), Cadence Design Systems, Inc. (20), Splunk Inc. (18), Twitter (17), Overstock.com (14), Synopsys, Inc. (14), Aspen Technology (14)

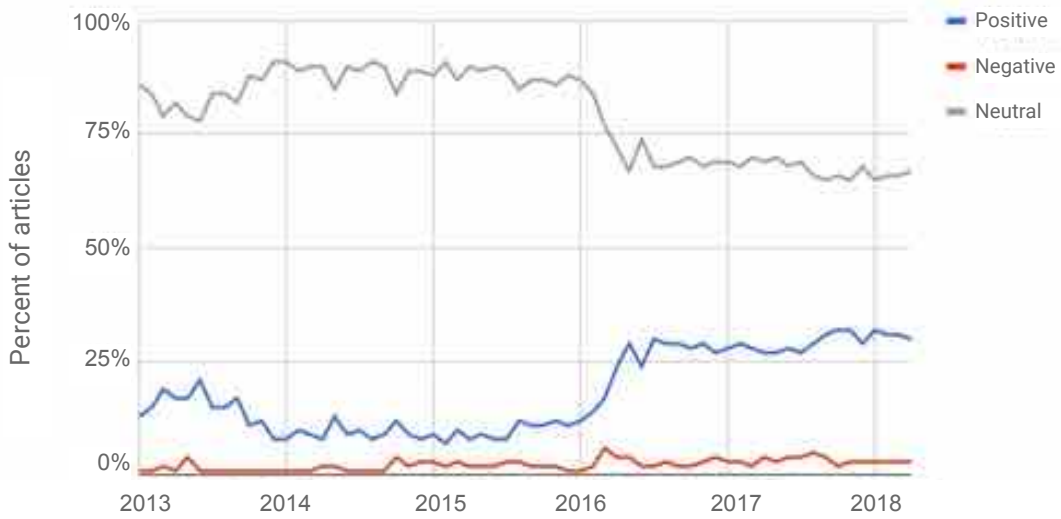
http://www.aiindex.org

AI and ML mentions in U.K. Parliament (1980—2018)
Source: Parliament of U.K. website, McKinsey Global Institute analysis



http://www.aiindex.org

Sentiment of articles referencing AI (2013—2018)
Source: TrendKite



http://www.aiindex.org

Was ist...

...KI?

„Künstliche Intelligenz ist die Digitalisierung menschlicher Wissensfähigkeiten“

„Schwache KI“
konzentriert sich auf konkrete Fähigkeiten und die Implementierung von digitalen Assistenten, die den Menschen in seinen Handlungskontexten optimal unterstützen, seine Ziele besser, leichter oder mit einer höheren Qualität zu erreichen.

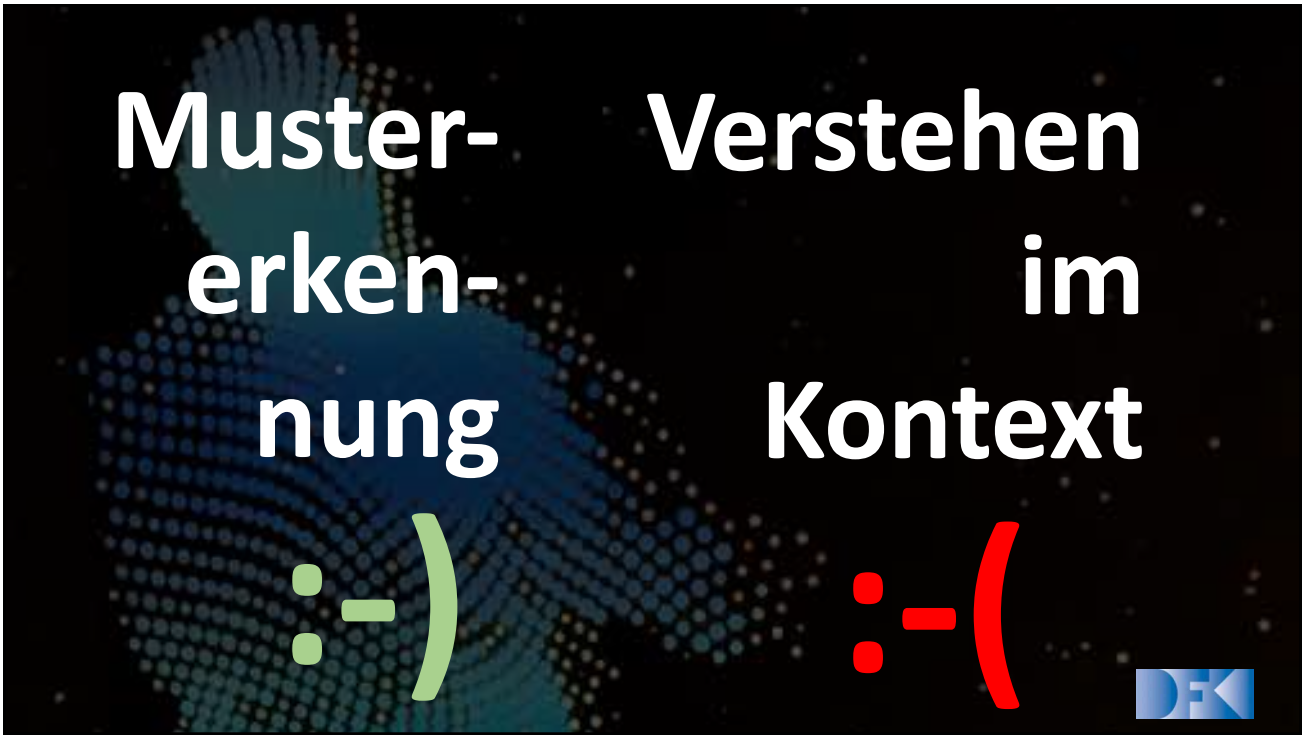
Multiplicity

Milliarden-€-Markt

„Starke KI“
zielt auf das umfassende künstliche menschenähnliche Etwas - letztendlich mit einem maschinellen Bewusstsein - den Homunculus, das künstliche Menschlein als Kopfgeburt.

Singularity

Hollywood


Muster-
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nung
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Verstehen
im
Kontext
:-(

Object
Recognition

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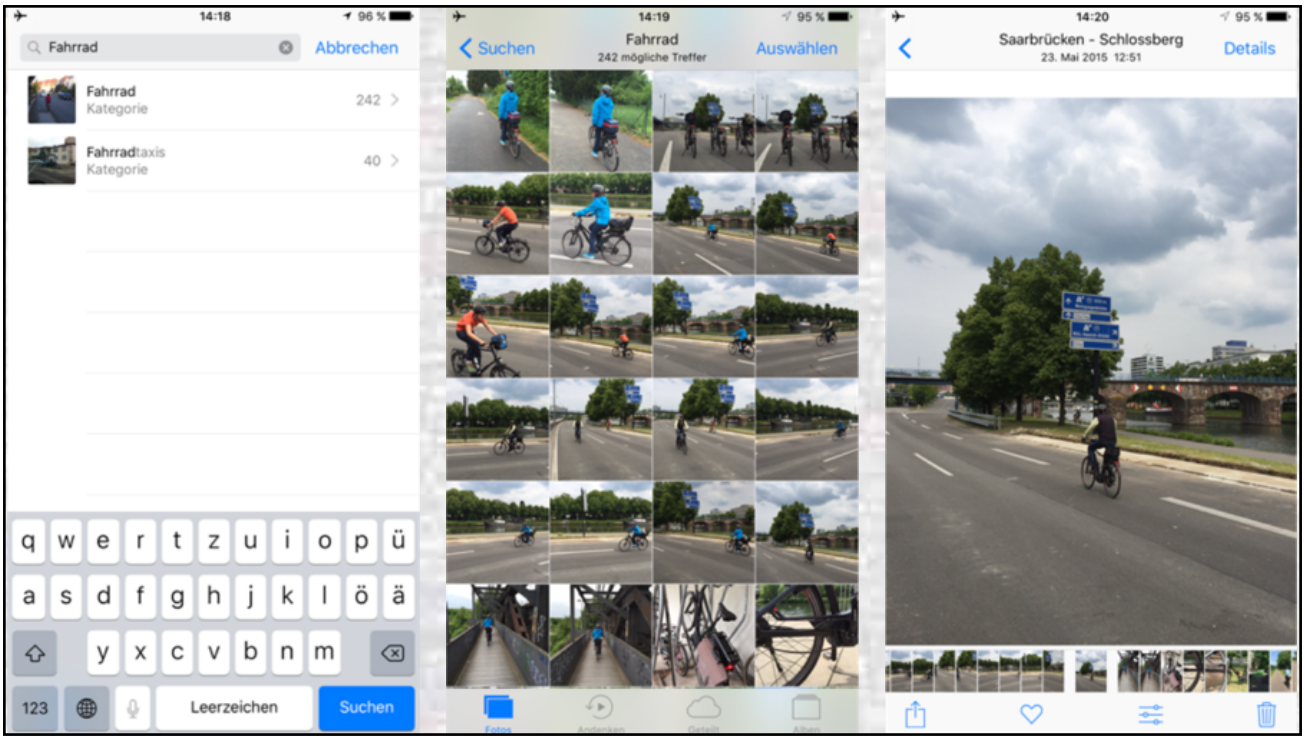
SCI-TECH

Australia to launch beach-protecting, AI-powered shark drones

The Little Ripper drones use artificial intelligence to distinguish sharks from dolphins and surfers in real time, warning swimmers of what lies beneath.

BY CLAIRE REILLY / AUGUST 27, 2017 11:31 PM PDT

False Negatives

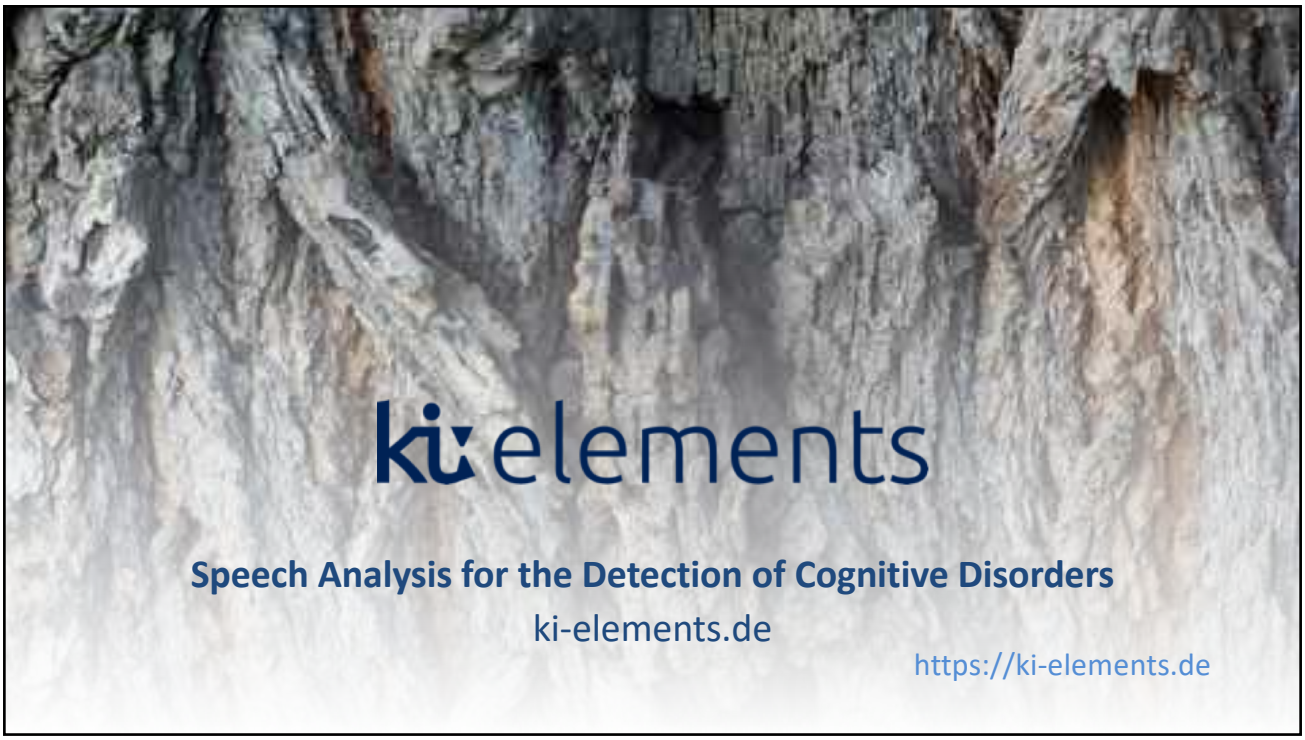


est ouverte
Tous les Jours
de
7" à 13"
et de
16" à 19"30

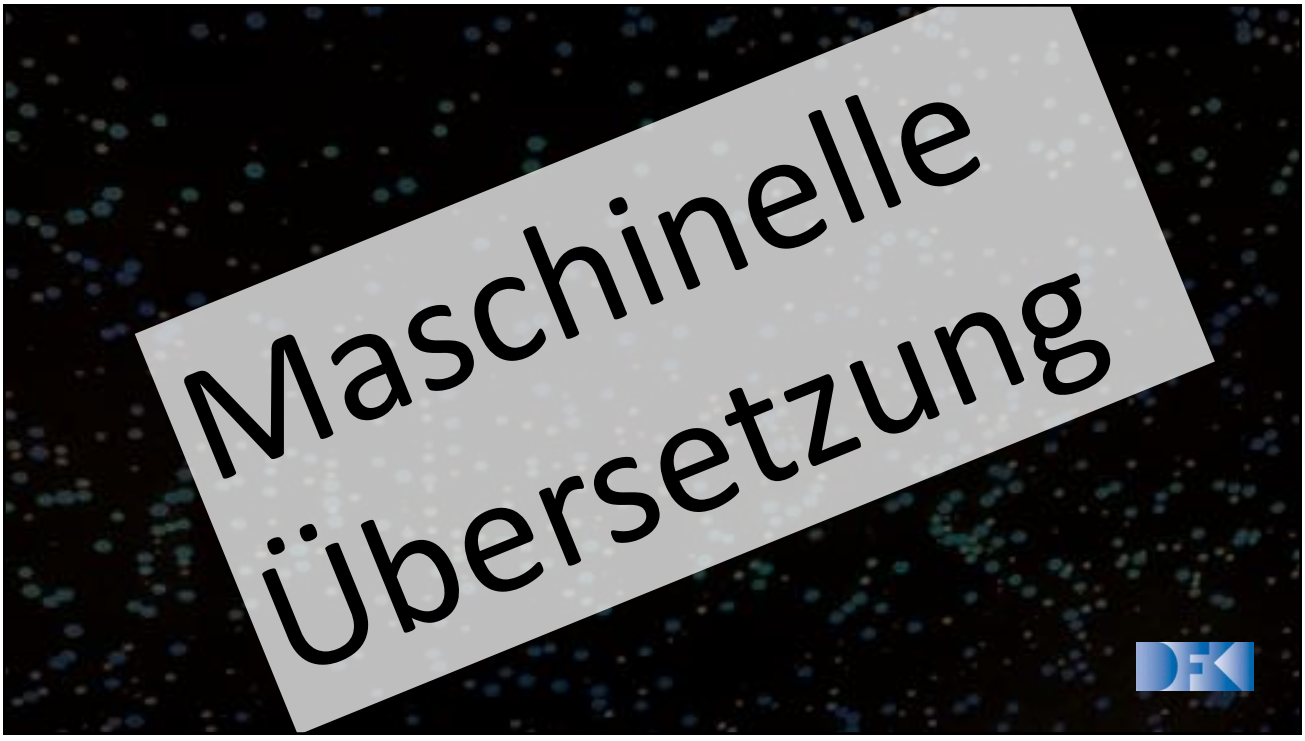
False Positives

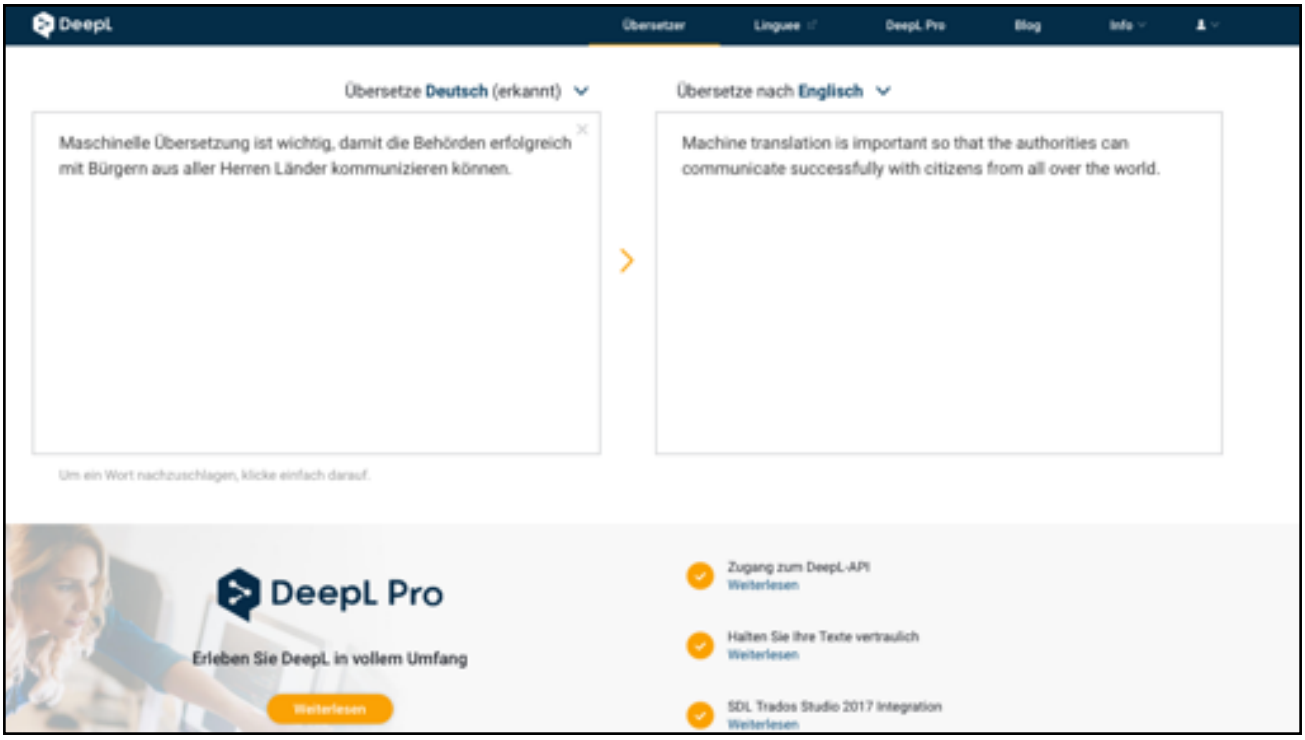
CAFE CENTRAL

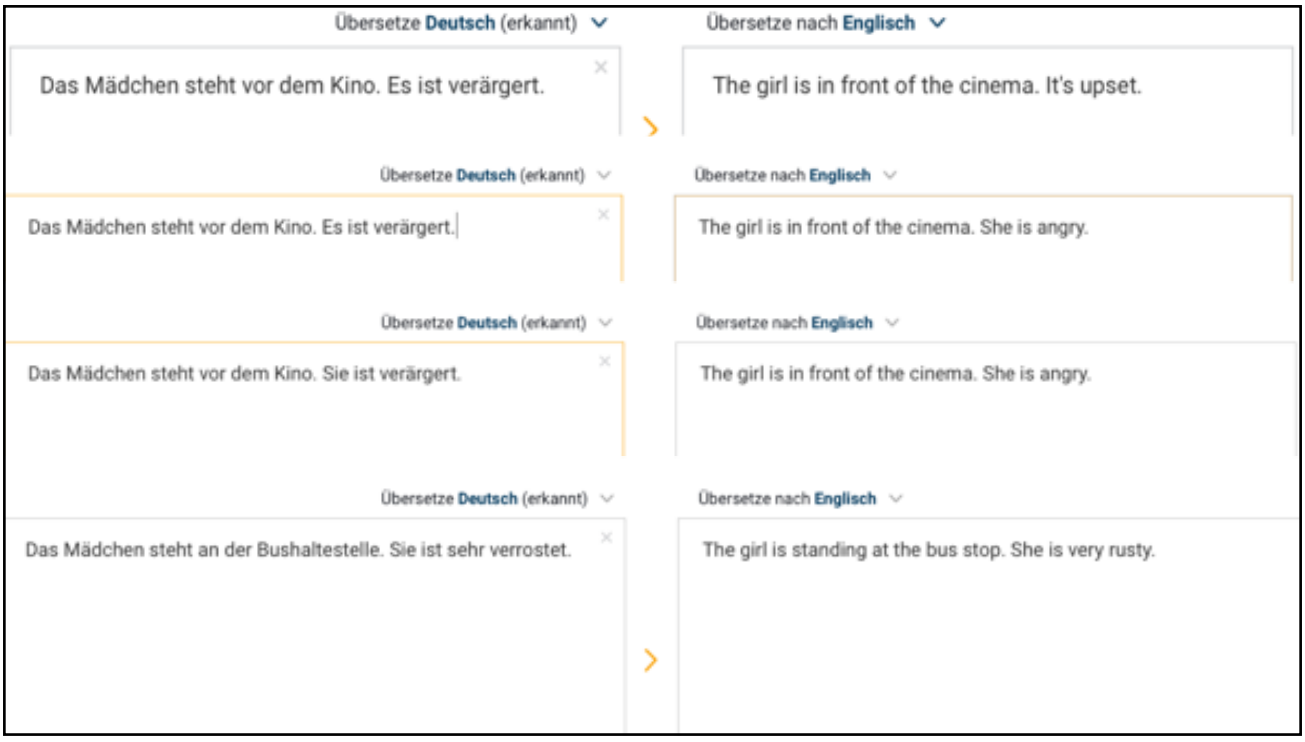
Health


ki elements
Speech Analysis for the Detection of Cognitive Disorders
ki-elements.de
https://ki-elements.de

Astract
9:41 AM
100%
Done
Count=24
Switches=6
MeanClusterSize=6
Repetitions=1
MeanFamiliarity=0.63
Max=0.97
Min=0.42
00:29 / 01:00


Maschinelle
Übersetzung


DeepL
Übersetzer
Linguee
DeepL Pro
Blog
Info
Übersetze Deutsch (erkannt)
Übersetze nach Englisch
Maschinelle Übersetzung ist wichtig, damit die Behörden erfolgreich mit Bürgern aus aller Herren Länder kommunizieren können.
Machine translation is important so that the authorities can communicate successfully with citizens from all over the world.
Um ein Wort nachzuschlagen, klicke einfach darauf.
DeepL Pro
Erleben Sie DeepL in vollem Umfang
Weiterlesen
Zugang zum DeepL-API
Weiterlesen
Halten Sie Ihre Texte vertraulich
Weiterlesen
SDL Trados Studio 2017 Integration
Weiterlesen

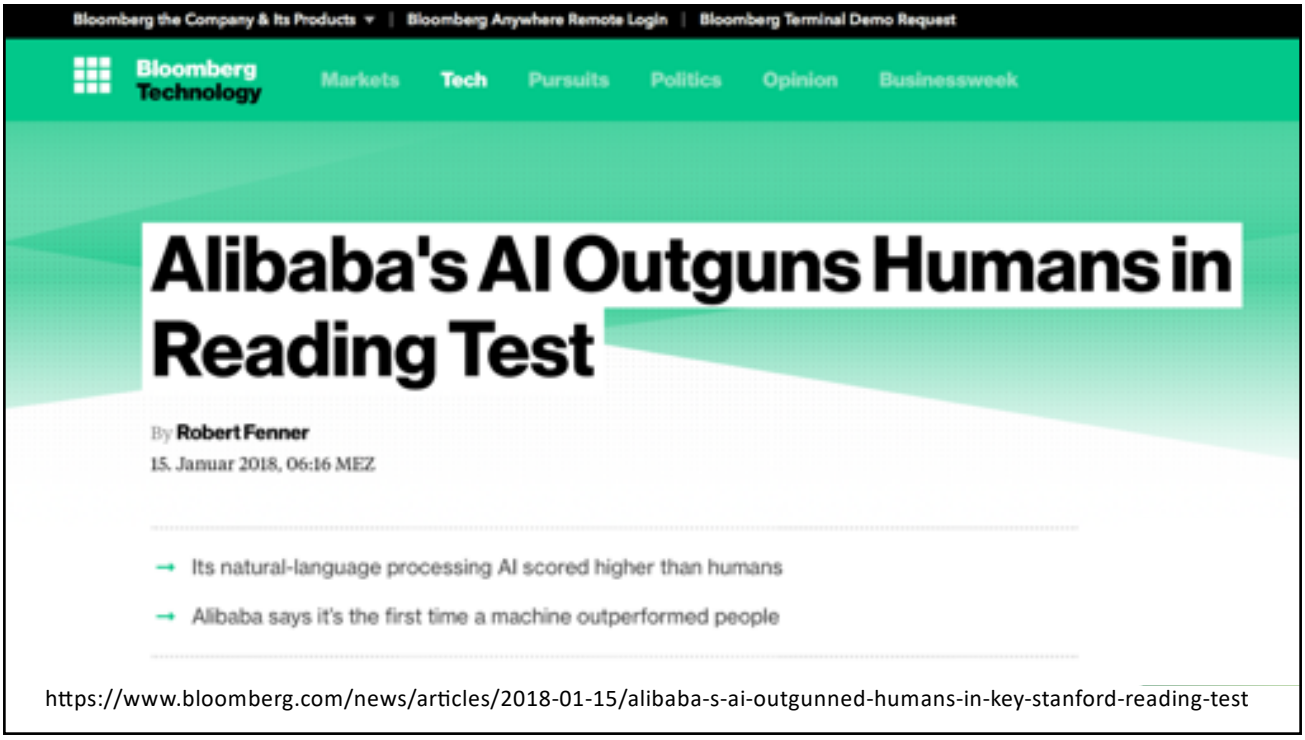

Übersetze Deutsch (erkannt)
Übersetze nach Englisch
Das Mädchen steht vor dem Kino. Es ist verärgert.
The girl is in front of the cinema. It's upset.
Übersetze Deutsch (erkannt)
Übersetze nach Englisch
Das Mädchen steht vor dem Kino. Es ist verärgert.
The girl is in front of the cinema. She is angry.
Übersetze Deutsch (erkannt)
Übersetze nach Englisch
Das Mädchen steht vor dem Kino. Sie ist verärgert.
The girl is in front of the cinema. She is angry.
Übersetze Deutsch (erkannt)
Übersetze nach Englisch
Das Mädchen steht an der Bushaltestelle. Sie ist sehr verrostet.
The girl is standing at the bus stop. She is very rusty.

Bias

Sie ist eine Ärztin.
20/5000
O bir doktor.
O bir doktor.
Er ist Arzt.
Turkish – detected
O bir doktor
Edit
French
Il est médecin

English – detected
He is a babysitter
Edit
Turkish
O bir bebek bakıcısı
Turkish – detected
O bir bebek bakıcısı
English
She's a babysitter
Turkish – detected
O bir bebek bakıcısı
German
Sie ist ein Babysitter

Q&A



https://www.bloomberg.com/news/articles/2018-01-15/alibaba-s-ai-outgunned-humans-in-key-stanford-reading-test

15.01.2018, 18.46 Uhr

Erstmals war eine künstliche Intelligenz im Stanford-Test zum Lesen und Verstehen besser als ein Mensch – der Rekord gelang sowohl der Alibaba- als auch der Microsoft-KI.

KI schlägt Menschen im Lesetest der Uni Stanford

Künstliche Intelligenzen (KI) haben in den vergangenen Monaten in vielen bisher kaum möglich erscheinenden Bereichen menschliche Leistungen übertroffen. So schreibt die eigentlich als Assistenz gedachte Google-KI mittlerweile bessere KI-Software als ihre Entwickler. Auch den weltbesten Go-Spieler hat die Google-KI geschlagen. Jetzt sollen die KI-Systeme von Alibaba und Microsoft im Abstand von wenigen Stunden den Test der Uni Stanford zum Lesen und Verstehen besser als ein Mensch absolviert haben, wie Bloomberg berichtet.

https://t3n.de/news/lesetest-ki-besser-als-menschen-911500/

SQuAD

The Stanford Question Answering Dataset

According to scholars Walter Krämer, Götz Trenkler, Gerhard Ritter, and Gerhard Prause, the story of the posting on the door, even though it has settled as one of the pillars of history, has little foundation in truth. The story is based on comments made by Philipp Melanchthon, though it is thought that he was not in Wittenberg at the time.

What story of little truth is a pillar of history?
Ground Truth Answers: posting on the door | story of the posting on the door | posting on the door
Prediction: the posting on the door

On whose comments is the posting on the door based?
Ground Truth Answers: Philipp Melanchthon | Philipp Melanchthon | Philipp Melanchthon
Prediction: Philipp Melanchthon

Where was Melanchthon at the time?
Ground Truth Answers: not in Wittenberg | not in Wittenberg | not in Wittenberg
Prediction: Wittenberg

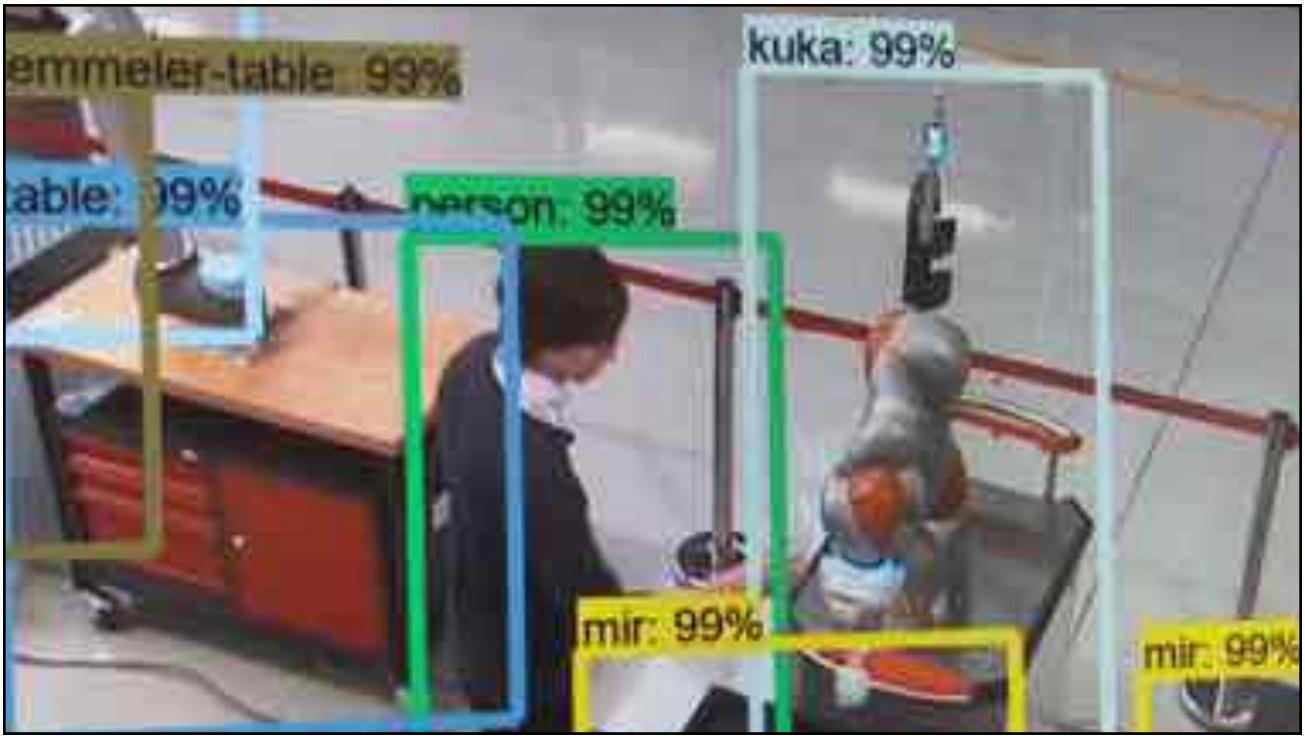
What do scholars agree on about the posting on the door story?
Ground Truth Answers: little foundation in truth | has little foundation in truth | settled as one of the pillars of history
Prediction: little foundation in truth

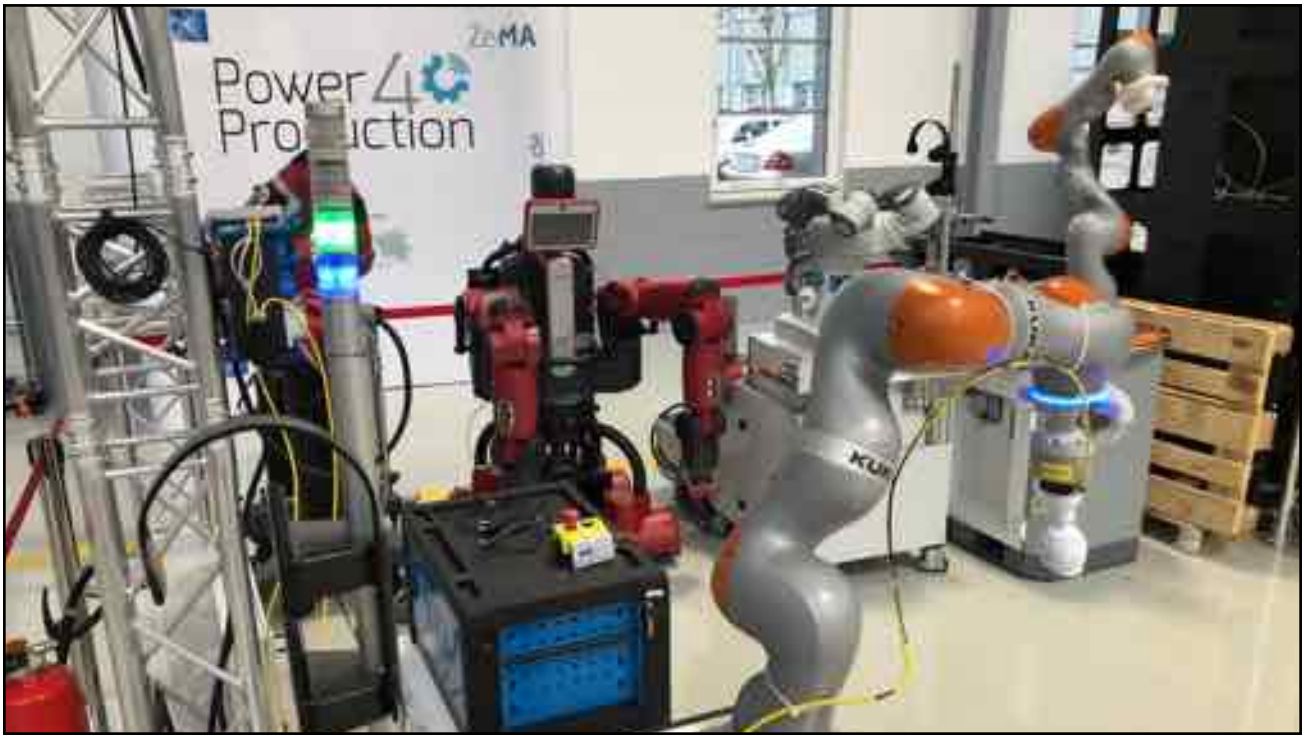
https://rajpurkar.github.io/SQuAD-explorer/explore/1.1/dev/Martin_Luther.html

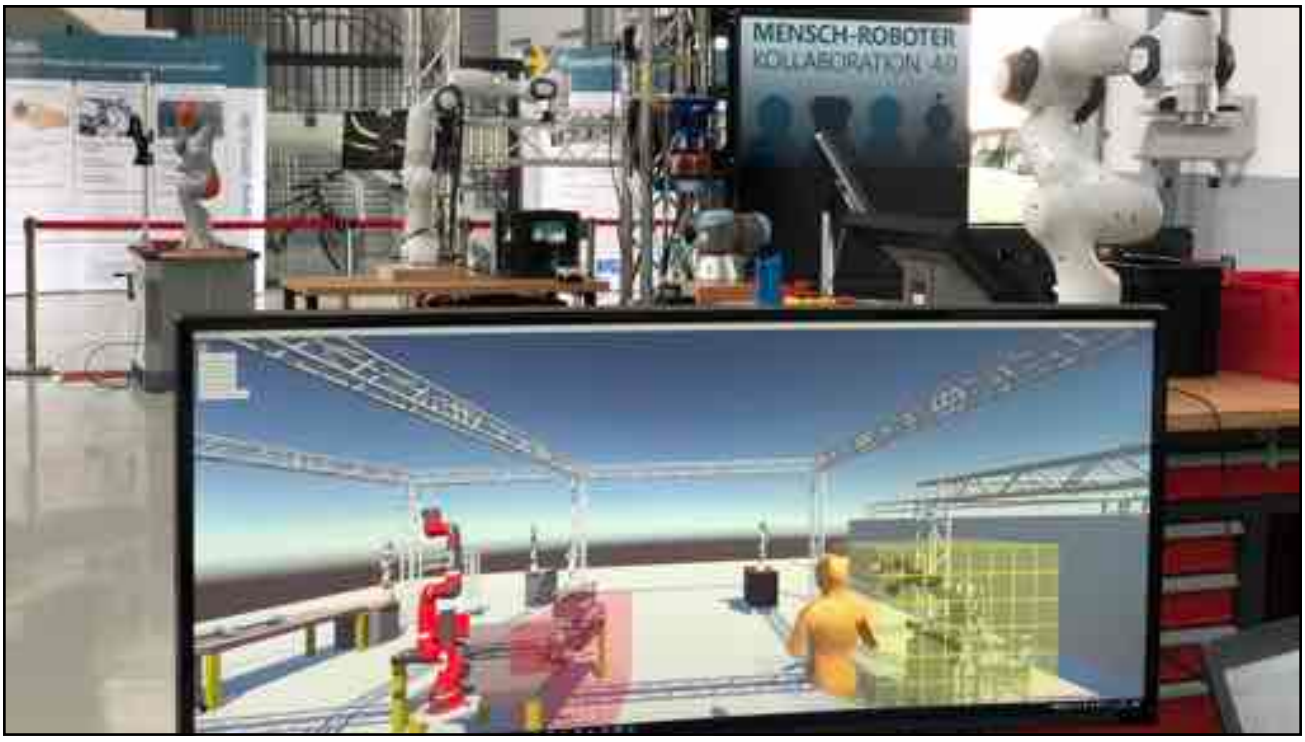
Human Robot
Collaboration

Safety

kuka: 97%
table: 99%


kuka: 99%
mir: 99%
mir: 99%


ZeMA
Power 4
Production


MENSCH-ROBOTER
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Automotive

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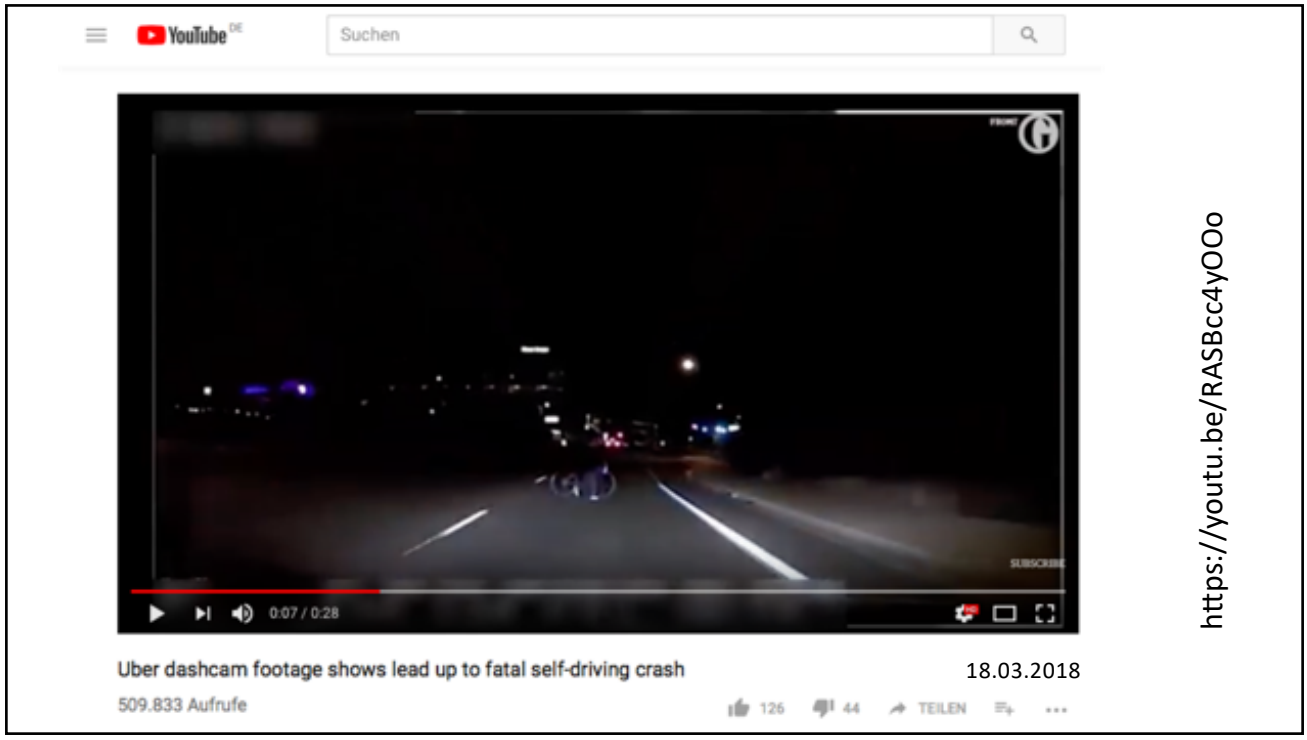

https://youtu.be/RASBcc4yOOo

24.05.2018

https://www.ntsb.gov/investigations/AccidentReports/Pages/HWY18MH010-prelim.aspx

PRELIMINARY REPORT
HIGHWAY
HWY18MH010

The information in this report is preliminary and will be supplemented or corrected during the course of the investigation.

About 9:58 p.m., on Sunday, March 18, 2018, an Uber Technologies, Inc. test vehicle, based on a modified 2017 Volvo XC90 and operating with a self-driving system in computer control mode, struck a pedestrian on northbound Mill Avenue, in Tempe, Maricopa County, Arizona. The Uber test vehicle was occupied by one vehicle operator, a 44-year-old female. No passengers were in the vehicle.

In the area of the crash, northbound Mill Avenue consists of two left-turn lanes, two through lanes, and one bike lane. The crash occurred before the formation of a right-turn lane. Roadway lighting was present. The posted speed limit was 45 mph.

The crash occurred as the pedestrian, a 49-year-old female, walked a bicycle east across Mill Avenue. The Uber test vehicle was traveling in the right through lane when its right front side struck the pedestrian (see figure 1). As a result of the crash, the pedestrian died. The vehicle operator was not injured.

In this area, northbound Mill Avenue is separated from southbound Mill Avenue by a center median containing trees, shrubs, and brick landscaping in the shape of an X. Four signs at the edges of the brick median, facing toward the roadway, warn pedestrians to use the crosswalk. The nearest crosswalk is at the intersection of Mill Avenue and Curry Road, about 360 feet north of where the crash occurred.

Figure 1. (Left) Location of the crash on northbound Mill Avenue, showing the paths of the pedestrian in orange and of the Uber test vehicle in green. (Right) Postcrash view of the Uber test vehicle, showing damage to the right front side.

Page 1 of 4

Uber had equipped the test vehicle with a developmental self-driving system. The system consisted of **forward- and side-facing cameras, radars, LIDAR, navigation sensors**, and a computing and data storage unit integrated into the vehicle.[1] Uber had also equipped the vehicle with an aftermarket camera system that was mounted in the windshield and rear window and that provided additional front and rear videos, along with an inward-facing view of the vehicle operator. **In total, 10 camera views were recorded over the course of the entire trip.**

Uber had equipped the test vehicle with a developmental self-driving system. The system consisted of forward- and side-facing cameras, radars, LIDAR, navigation sensors, and a computing and data storage unit integrated into the vehicle.[1] Uber had also equipped the vehicle with an aftermarket camera system that was mounted in the windshield and rear window and that provided additional front and rear videos, along with an inward-facing view of the vehicle operator. In total, 10 camera views were recorded over the course of the entire trip.

The self-driving system relies on an underlying map that establishes speed limits and permissible lanes of travel. The system has two distinct control modes: computer control and manual control. The operator can engage computer control by first enabling, then engaging the system in a sequence similar to activating cruise control. The operator can transition from computer control to manual control by providing input to the steering wheel, brake pedal, accelerator pedal, a disengage button, or a disable button.

The vehicle was factory equipped with several advanced driver assistance functions by Volvo Cars, the original manufacturer. The systems included a collision avoidance function with automatic emergency braking, known as City Safety, as well as functions for detecting driver alertness and road sign information. All these Volvo functions are disabled when the test vehicle is operated in computer control but are operational when the vehicle is operated in manual control.

According to Uber, the developmental self-driving system relies on an attentive operator to intervene if the system fails to perform appropriately during testing. In addition, the operator is responsible for monitoring diagnostic messages that appear on an interface in the center stack of the vehicle dash and tagging events of interest for subsequent review.

On the night of the crash, the operator departed Uber's garage with the vehicle at 9:14 p.m. to run an established test route. At the time of the crash, the vehicle was traveling on its second loop of the test route and had been in computer control since 9:39 p.m. (i.e., for the preceding 19 minutes).

According to data obtained from the self-driving system, the system first registered radar and LIDAR observations of the pedestrian about 6 seconds before impact, when the vehicle was traveling at 43 mph. As the vehicle and pedestrian paths converged, the self-driving system software classified the pedestrian as an unknown object, as a vehicle, and then as a bicycle with varying expectations of future travel path. At 1.3 seconds before impact, the self-driving system determined that an emergency braking maneuver was needed to mitigate a collision (see figure 2).[2] According to Uber, emergency braking maneuvers are not enabled while the vehicle is under computer control, to reduce the potential for erratic vehicle behavior. The vehicle operator is relied on to intervene and take action. The system is not designed to alert the operator.

[1] Light Detection and Ranging (LIDAR) works much like radar, but instead of radio waves, it emits pulses of infrared light and measures how long they take to return after hitting nearby objects. Navigation sensors monitor global positioning system (GPS), inertia, and wheel speed.

[2] In Uber's self-driving system, an emergency brake maneuver refers to a deceleration greater than 6.5 meters per second squared (m/s²).

Page 2 of 4

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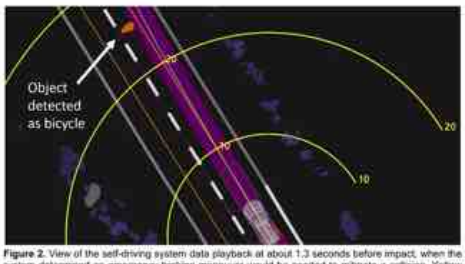

Figure 2. View of the self-driving system data playback at about 1.3 seconds before impact, when the system determined an emergency braking maneuver would be needed to mitigate a collision. Yellow bands are shown in meters ahead. Orange lines show the center of mapped travel lanes. The purple shaded area shows the path the vehicle traveled, with the green line showing the center of that path.

The self-driving system data showed that the vehicle operator intervened less than a second before impact by engaging the steering wheel. The vehicle speed at impact was 39 mph. The operator began braking less than a second after the impact. The data also showed that all aspects of the self-driving system were operating normally at the time of the crash, and that there were no faults or diagnostic messages.

Several Uber self-driving system cameras captured the crash event. The videos were reviewed by the NTSB and the parties to the investigation. The forward-facing videos show the pedestrian coming into view and proceeding into the path of the vehicle. The videos also show that the pedestrian, once visible, did not look in the direction of the vehicle until just before impact. The videos show that the pedestrian was dressed in dark clothing and that the bicycle did not have any side reflectors. The bicycle had front and rear reflectors and a forward headlamp, but all were facing in directions perpendicular to the path of the oncoming vehicle. The videos show that the pedestrian crossed in a section of roadway not directly illuminated by the roadway lighting.

The inward-facing video shows the vehicle operator glancing down toward the center of the vehicle several times before the crash. In a postcrash interview with NTSB investigators, the vehicle operator stated that she had been monitoring the self-driving system interface. The operator further stated that although her personal and business phones were in the vehicle, neither was in use until after the crash, when she called 911.

The NTSB continues to gather information on the Uber self-driving system, the vehicle interface, and the driver's personal and business cell phones. Although toxicological specimens were not collected

The self-driving system data showed that **the vehicle operator intervened less than a second before impact by engaging the steering wheel. The vehicle speed at impact was 39 mph. The operator began braking less than a second after the impact**...

...The inward-facing video shows the **vehicle operator glancing down toward the center of the vehicle** several times before the crash. In a postcrash interview with NTSB investigators, the **vehicle operator stated that she had been monitoring the self-driving system interface**. The operator further stated that although her **personal and business phones** were in the vehicle, **neither was in use** until after the crash, when she called 911....

from the vehicle operator, responding officers from the Tempe Police Department stated that the vehicle operator showed no signs of impairment at the time of the crash.

The NTSB continues to gather information on the pedestrian and is seeking information from anyone who might be aware of her activities before the crash. Those with information should contact the NTSB by email at witness@ntsb.gov. Toxicology test results for the pedestrian were positive for methamphetamine and marijuana.

All aspects of the crash remain under investigation as the NTSB determines the probable cause, with the intent of issuing safety recommendations to prevent similar crashes. The NTSB is working with the parties to the investigation—Uber, Volvo Cars, and the Arizona Department of Transportation—to compile a complete and accurate account of the crash.

Umrechnung

1 m/h = 1,61 km/h

43 m/h = 69,23 km/h

69,23 km/h = 21,63 m/s

1,3 x 21,63 = 28,119 m

Formel für Gefahrenbremsung:

$$\frac{\frac{Geschwindigkeit\ in\ km/h}{10} * \frac{Geschwindigkeit\ in\ km/h}{10}}{2}$$

Gefahrenbremsweg bei 69,23 km/h:
6,923 x 6,923 / 2 = 23,96 m

Saarbrücken

Synthetische Daten

Agents and Simulated Reality Department
Saarbrücken / Prof. Philipp Slusallek

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Sahra Wagenknecht im Interview

"Roboter und KI könnten uns von Mühsal und Stress befreien"

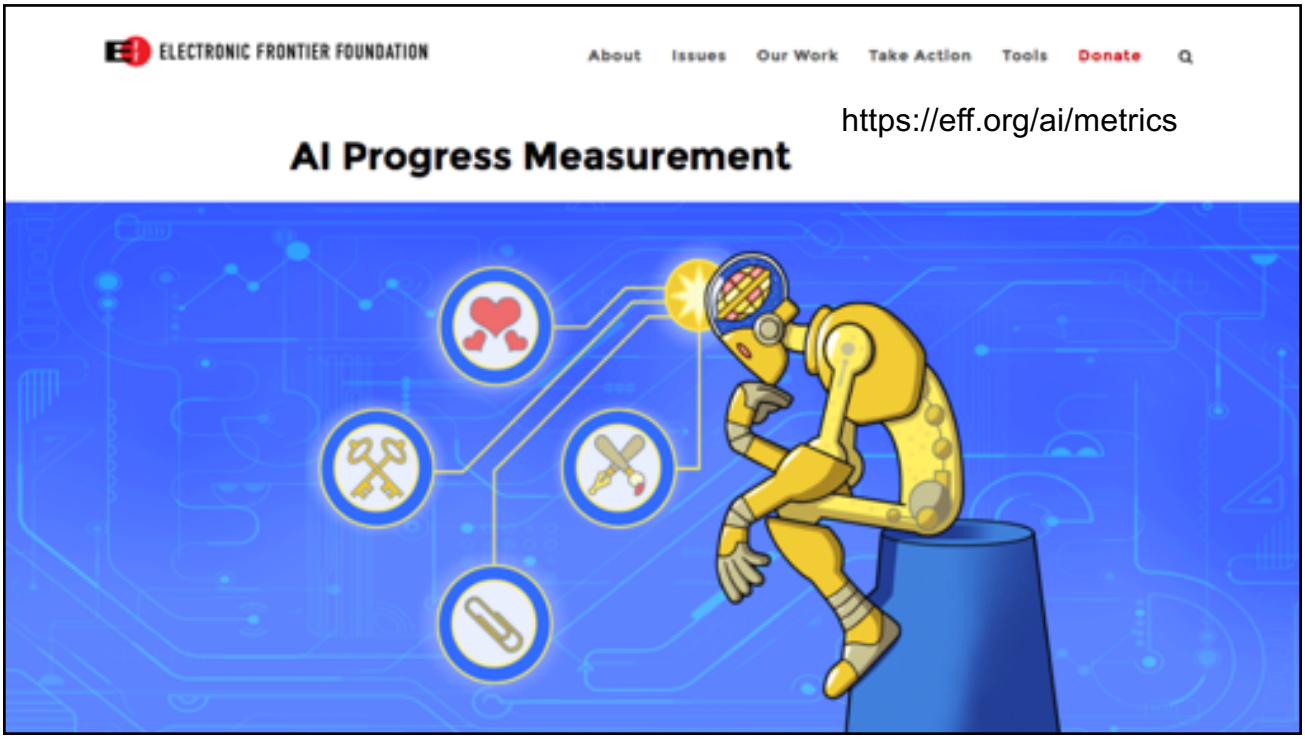
Drucken

http://www.cio.de/a/roboter-und-ki-koennten-uns-von-muehsal-und-stress-befreien,3323500

19.10.2016

Von Jan-Bernd Meyer (Leitender Redakteur Computerwoche)

Sahra Wagenknecht, die gemeinsam mit Dietmar Bartsch den Fraktionsvorsitz der Partei DIE LINKE bildet, hat auf unsere Fragen zur Digitalisierung, Automatisierung und Roboterisierung der Gesellschaft Antworten gegeben, die überraschen. Wirklich bedrohlich scheint sie die technischen Umwälzungen übrigens nicht zu finden.



https://eff.org/ai/metrics

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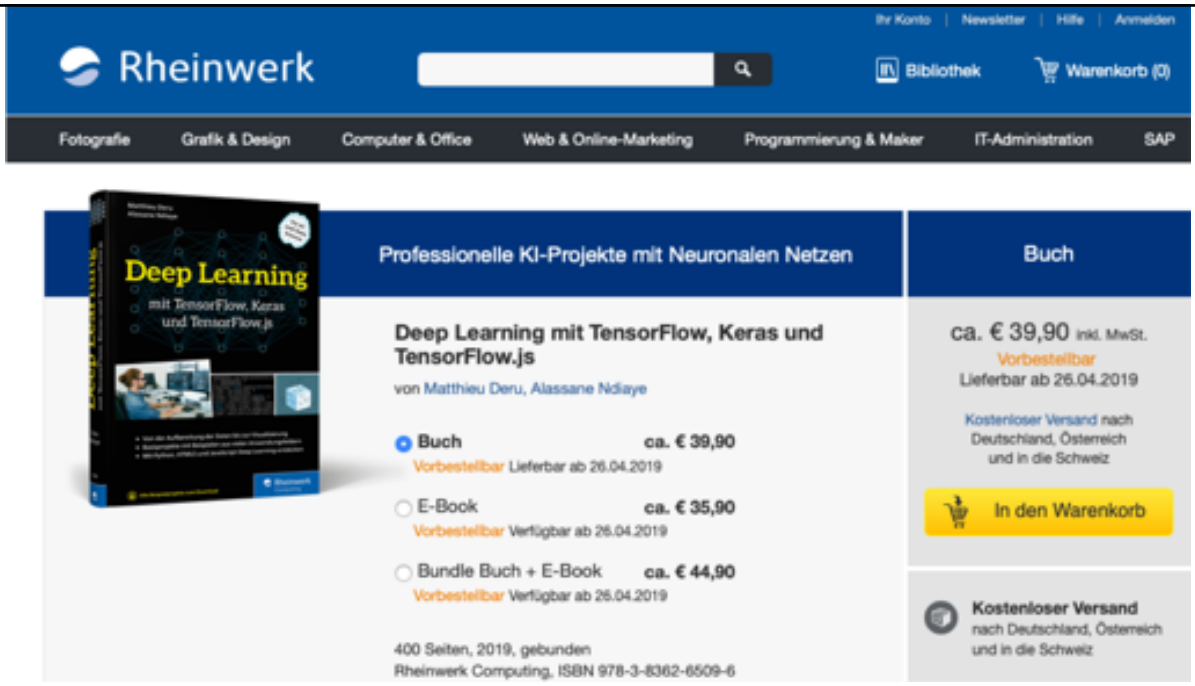
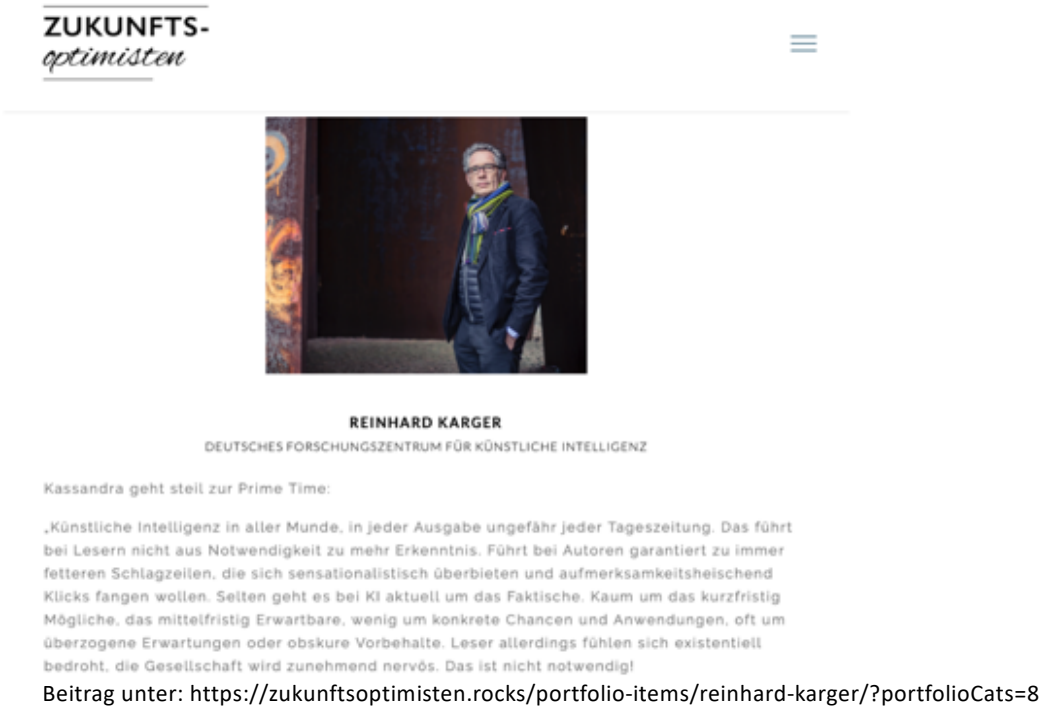


https://www.rheinwerk-verlag.de/deep-learning-mit-tensorflow-keras-und-tensorflowjs_4715/



Beitrag unter: https://zukunftsoptimisten.rocks/portfolio-items/reinhard-karger/?portfolioCats=8

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