

#### "[AI] is going to change the world

more than anything in the history of mankind. More than electricity."

AI oracle and venture capitalist Dr. Kai-Fu Lee



## **Artificial Intelligence:** Perception



Artificial intelligence is everywhere in the modern world. From Google search and Google translate, Facebook photo tagging, to virtual assistants such as Amazon's Siri, or navigation applications, Al already is a part of everyday life for most people living in first world countries. Yet only 36% of Americans believe that Google search uses artificial intelligence, compared to the 63% of Americans that believe that virtual assistants use AI. The lack of novelty of older AI applications (such as search engines), and a lack of public understanding of AI technology and how it works, is driving an information divide between younger/more tech savvy adults and older adults who are less integrated into modern technology.

According to a 2017 survey, nearly half of Americans reported that they were unfamiliar with AI (Morning Consult 2017). In the same year, only 9% of the British public said they had heard of the term "machine learning" (Ipsos MORI 2018).

"Any sufficiently advanced technology is indistinguishable from magic" (Arthur C Clarke, Profiles of the Future, An Inquiry Into the Limits of the Possible).

Public understanding of artificial intelligence technology, as well as the public's perception of the risks and benefits of artificial intelligence technology, may accelerate or slow down the adoption and spread of AI technologies. Many Al



Asia leads in public opinion of robots and AI When asked if the technology was "good for society"

53% 29% Netherlands United States 44% United Kingdom 46% Czech Republic

Source: Pew Research Center

Malaysia

Russia Australia

Germany

Canada

Poland

France

TECHMONITOR

applications are invisible in their use of AI - ie. the general public does not understand how the application, algorithm, etc. that they use all the time actually works. Conversely, applications for AI that do tasks publicly that are done by humans have a greater potential for public backlash and regulation. These include autonomous vehicles and drones, social robots, and artificial general intelligence (AGI).



Source: Center for the Governance of Al

## Artificial Intelligence:

#### Projection



While AI has the potential to transform human life, not everyone will benefit from the artificial intelligence revolution. According to a <u>McKinsey report on the future of work</u>, the capabilities of artificial intelligence to do human work could lead to (up to) 30% of jobs by 2030 being replaced by artificial intelligence in the most aggressive of timelines. Despite this, less than 5% of jobs can be fully automated with today's technology. What this means for firms is that some number of workers will be laid off and/or reskilled, and labor productivity will increase as AI replaces humans for certain job tasks.

...In about 60 percent of occupations, at least one-third of the constituent activities could be automated, implying substantial workplace transformations and changes for all workers.

According to the aforementioned report, jobs that have the greatest growth projections in America include technology professionals (34%), builders (35%) and care providers (30%). Predictable physical work (-31%), office support work (-20%) and customer interaction (-1%) are the job categories with the worst growth projections in the United States through 2030 as AI and robotics stand to make significant inroads replacing this type of work. While it's possible that some workers in the predictable physical labor sector will be able to shift towards work as builders, it's likely that the technology professionals and care providers sectors will experience both high job growth rates and high salary growth rates. A combination of high structural unemployment (ie. workers that need to re skill in order to rejoin the workforce) and greater socioeconomic inequality may lead to political strife over the implementation of artificial intelligence technology.



Compassion not Needed

### **Artificial Intelligence:**

#### Integration



While some 30% of global job activities have the capability to be automated with current artificial intelligence technology, it will take time for AI technologies and firms to replace human work with technology. Automated driving technology offers a cautionary tale of the dangers of relying too much on projections that focus more on technological capabilities than the social and political constructs that govern artificial intelligence technological adaptation.

In 2005, five Lidar equipped vehicles were able to finish the second DARPA Grand Challenge, a driverless 132 mile autonomous vehicle competition on off-road (desert) terrain. No vehicles were able to complete the first DARPA Grand Challenge, and the second competition showcased the possibilities of autonomous vehicles. The third DARPA Grand Challenge was held in 2007 in an urban environment, and vehicles were expected to follow traffic laws and had to contend with other cars. Six teams finished this event. These competitions helped several companies to begin to develop AI, including Google. Despite autonomous vehicles having driven millions of miles on the road over the last decade, the deployment of the technology is still limited and behind earlier projections.

By the end of (2017), said Musk, Tesla would demonstrate a fully autonomous drive from, say, "a home in L.A., to Times Square ... without the need for a single touch, including the charging."

(Former) Ford CEO Jim Hackett scaled back hopes about the company's plans for self-driving cars this week, admitting that the first vehicles will have limits. "We overestimated the arrival of autonomous vehicles," said Hackett.

When you're working on the large-scale deployment of mission critical safety systems, the mindset of "move fast and break things" certainly doesn't cut it. Delivering self-driving cars at scale isn't just about winning the tech race, it's about winning the tech race and the trust race. <u>- Former Cruise CEO Dan Ammann</u>

Just because the technology exists to automate 30% of job tasks today, doesn't mean that it will happen short-term. While autonomous vehicles technology needs to meet standards that are much higher than

the performance of humans, other AI technologies may be held back for similar reasons. Managers of companies who will be tasked to decide what role AI will play in their company may be risk averse, and might not want to rely upon an unproven solution to a problem that doesn't necessarily need to be solved (automating human work).

Even if the technology does work, errors in the AI system will draw more scrutiny than human errors. Labor interests are going to be motivated to scrutinize and criticize these technologies as they directly replace human workers. In short, AI might need to outperform workers in order to be feasible to implement for managers, CEO's and stakeholders. However, the technology will face much less scrutiny in filling job roles that companies today are struggling to fill due to a lack of labor. Undesirable jobs are the best targets for AI companies as the bar will be much lower for implementation.

Al from <u>a range of industries</u> to get you thinking about what they can do:

- manufacturing: decide at speed whether products are fit for sale, via photo or video analysis.
- customer service: transcribe call center calls with speech to text and perform sentiment analysis.
- finance: monitor transactions at scale to quickly identify unusual or fraudulent behaviour.
- logistics: optimize processes by studying vehicle routes and patterns of delivery.



# Rouge Cardiologist Charged for Development and Sale of Ransomware



A well established cardiologist taught himself computer programming and then developed an entire ransomware side business – and bragged about his attacks. <u>Moises Luis Zagala Gonzalez (Zagala)</u>, also known as "Nosophoros," "Aesculapius" and "Nebuchadnezzar," was charged with attempted computer intrusions and conspiracy to commit computer intrusions last week. Zagala, a 55-year-old cardiologist who resides in Ciudad Bolivar, Venezuela, has designed multiple ransomware tools—malicious software that cybercriminals use to extort money from companies, nonprofits and other institutions, by encrypting those files and then demanding a ransom for the decryption keys. Zagala sold or rented out his software to hackers who used it to attack computer networks. As the mastermind behind the Thanos ransomware, he offered a license to the software for a fee from \$500 to \$800 per month, or alternatively he offered an affiliate deal where he and the hacker shared the revenue that the hacker generated.



(Zagala's) two preferred nicknames were "Aesculapius," referring to the ancient Greek god of medicine, and "Nosophoros," meaning "disease-bearing" in Greek.

One popular method of attack was using LAN's to shutdown the entire LAN, holding it hostage until they were paid. If they hacked a LAN that had cloud or tape backup, they would steal victim information instead of encrypting the victim's files. This underscores the importance of cloud or hardware backups in mitigating cybersecurity risks. Zagala's ransomware builder (called Thanos) came with 43 different possible configurations, allowing for customization to fit individual hackers' needs. The weaponization of security research by Zagala is itself a concerning development, raising questions about how accessible such security research should be to the public.

#### <u>Thanos was the first ransomware family to advertise use of the RIPlace technique, demonstrating a real</u> instance of underground actors weaponizing proofs of concept originating from security research.

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If convicted, Zagala faces <u>up to five years' imprisonment</u> for attempted computer intrusion, and five years' imprisonment for conspiracy to commit computer intrusions. "The multi-tasking doctor treated patients, created and <u>named his cyber tool after death</u>, profited from a global ransomware ecosystem in which he sold the tools for conducting ransomware attacks, trained the attackers about how to extort victims, and then boasted about successful attacks, including by malicious actors associated with the government of Iran," U.S. attorney Breon Peace <u>said</u>.



# Upcoming Conferences

June 6-9	RSA Conference, San Francisco & Virtual
June 7-10	Women in Tech Global Conference 2022, TBA & Virtual
June 12-16	Cisco Live, Vegas
June 14-16	Digital Enterprise Show, Malaga
June 15	Cloud Security Summit, Virtual
June 21-22	Gartner Security & Risk Management Summit, Sydney
June 21-22	Gartner Digital Workplace Summit, San Diego
June 29- July1	Mobile World Congress, Shanghai
July 13	FutureCon St. Louis, Hybrid
July 19-20	Cyber Solutions Summit & Expo, Virtual
July 25-27	Gartner Security & Risk Management Summit, Tokyo
August 2-4	Flash Memory Summit, Santa Clara
August 6-11	Black Hat USA, Vegas
August 11-14	DEF CON 30, Vegas
August 27-28	<u>Blue Team Con</u> , Chicago
September 8	<u>FutureCon</u> , Des Moines
September 12-14	Gartner Security & Risk Management Summit, London
September 13-14	<u>CISO Forum</u> , Virtual

September 14	Cybersecurity Expo, Phoenix
September 19-20	Industry of Things World, Berlin
September 22-23	Global Cyber Conference, Zurich
September 26-28	InfoSec World, Colorado Springs
September 27-28	International Cyber Expo, London
September 28-29	loT World, Santa Clara
October 5-6	Evolve, Vegas
October 10-12	ISC Security Congress, Vegas
October 17-19	Authenticate 2022, Seattle
October 24-27	ICS Cybersecurity Conference, Hybrid/Virtual
November 16	San Diego Cybersecurity Conference, Hybrid
November 16	Threat Hunting Summit, Virtual
November 18-19	Data Strategy & Insights (Forrester Research), Virtual
December 1-2	Al & Big Data Expo Global, London
December 6	Security Operations Summit, Virtual

