



ARTIFICIAL INTELLIGENCE



AI Index Report 2023 - Artificial Intelligence Index

The AI Index is an independent initiative at the Stanford Institute for Human-Centered Artificial Intelligence (HAI), led by the AI Index Steering Committee, an interdisciplinary group of experts from across academia and industry. The annual report tracks, collates, distills, and visualizes data...

aiindex.stanford.edu



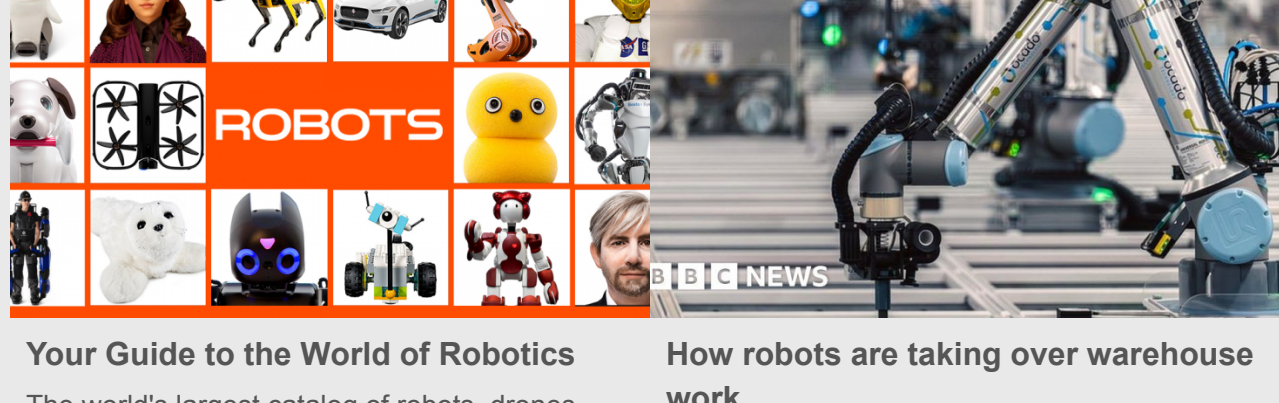
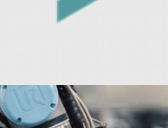
The future of learning: AI is revolutionizing education 4.0

AI is revolutionizing education 4.0, enhancing human-led teaching, promoting equity and preparing students to use and innovate with AI for future work.

weforum.org



ROBOTICS



Your Guide to the World of Robotics

The world's largest catalog of robots, drones, and self-driving cars, with thousands of photos, videos, tech specs, news, and information on how to get into robotics. Brought to you by IEEE Spectrum.

robotsguide.com

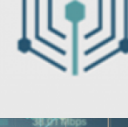
How robots are taking over warehouse work

At Ocado's newest warehouse robotic arms are helping to pack customer orders.

bbc.com



INFRASTRUCTURE



Large Language Models for Design and Manufacturing

The progress in generative AI, particularly large language models (LLMs), opens new prospects in design and manufacturing. Our research explores the use of these tools throughout the entire design and manufacturing workflow. We assess the capabilities of LLMs in various...

mit-genai.pubpub.org

New 6G Wireless Tech Is 500 Times Faster Than Average 5G Smartphones

Fifth-generation or '5G' connectivity for cellular technology has only been the standard for networks for around five years, but with 6G already on the horizon, developers are looking for ways to take full advantage of the next generation's expansive...

sciencealert.com



LIFE SCIENCES



'ChatGPT for CRISPR' creates new gene-editing tools

Some of the AI-designed gene editors could be more versatile than those found in nature. Some of the AI-designed gene editors could be more versatile than those found in nature.

nature.com

The Difference Is the Data: Drug Discovery's AI Revolution

New data-intensive platforms continue to leverage artificial intelligence tools for improved speed and failure rate reductions for drug discovery.

genengnews.com



ENERGY



Getting the Grid to Net Zero

An emerging technology, grid-forming inverters, are letting utilities install more renewable energy facilities, such as solar photovoltaics and wind turbines. The inverters are often connected to utility-scale battery systems at solar-plus-storage facilities.

spectrum.ieee.org



CYBERSECURITY



How one volunteer stopped a backdoor from exposing Linux systems worldwide

A maintainer for a Linux-based database identified malicious code hidden in a tool called XZ Utils and stopped a global security breach in its tracks.

theverge.com



AEROSPACE



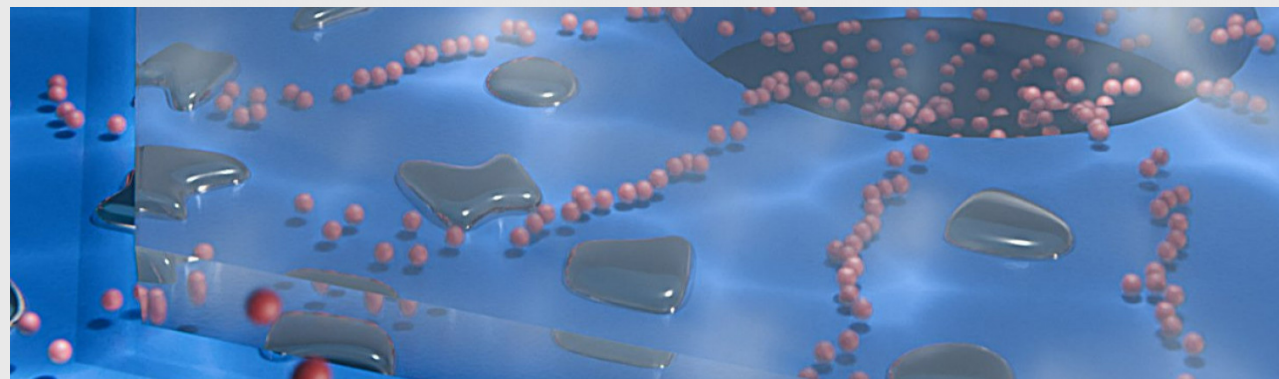
Israel's Iron Dome

How layers of air defenses protected the country against the biggest onslaught of missiles and drones in its history

reuters.com



ARTIFICIAL SENSING



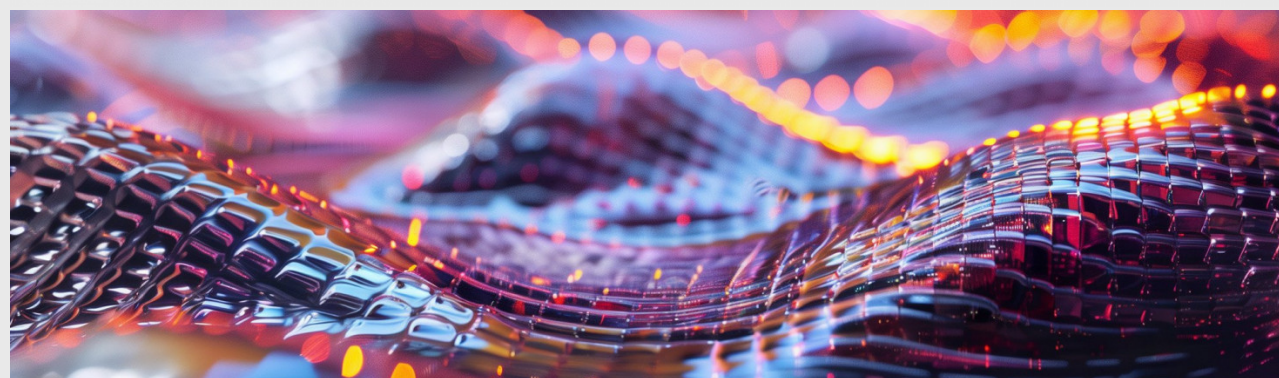
Will Liquid Circuits Make Brain-Imitating Computers?

New microchips shuffle around ions like synapses in the human brain

spectrum.ieee.org



ADVANCED MATERIALS



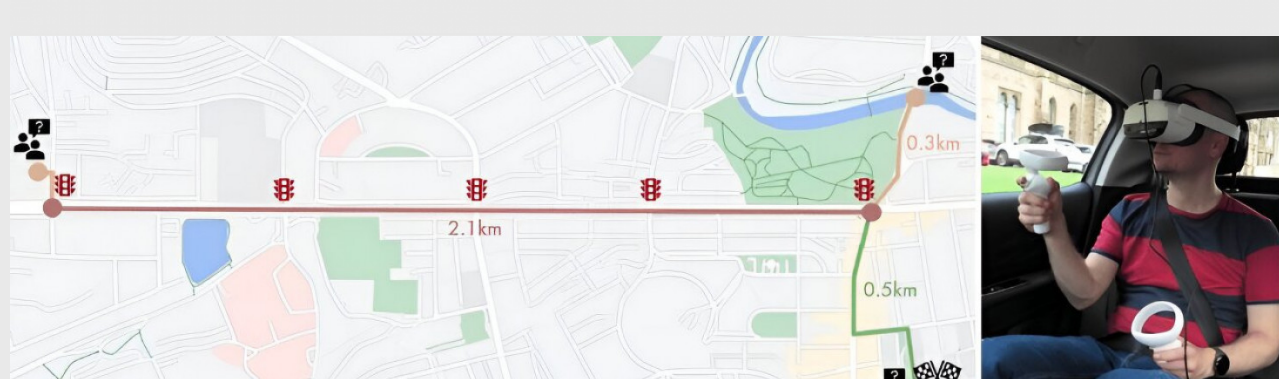
Not Science Fiction: Harvard Scientists Have Developed an "Intelligent" Liquid

Scientists have developed a metafluid with programmable response. Scientists at the Harvard John A. Paulson School of Engineering and Applied Sciences (SEAS) have developed a programmable metafluid with tunable springiness, optical properties, viscosity and even the ability to transition between a

scitechdaily.com



VIRTUAL AND AUGMENTED REALITY



New tech could help traveling VR gamers experience 'ludicrous speed' without motion sickness

Vehicle passengers using VR headsets to pass the time during travel could be set to enjoy games which move at 'ludicrous speed' without experiencing motion sickness, researchers say.

techxplore.com



IN THE LAB



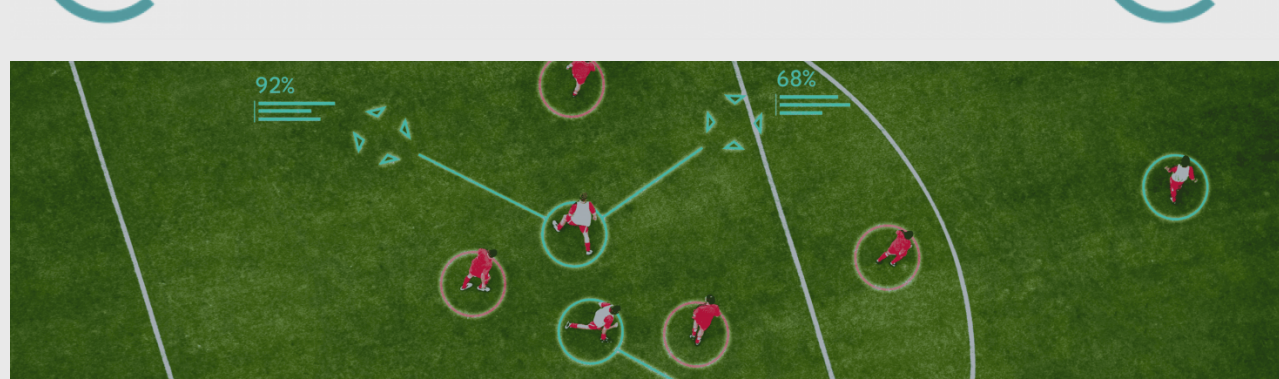
Avi Wigderson, Complexity Theory Pioneer, Wins Turing Award

The prolific researcher found deep connections between randomness and computation and spent a career influencing cryptographers, complexity researchers and more.

quantamagazine.org



AFTER HOURS



Google's AI is now suggesting new football tactics

Football (or soccer) is about to get a lot more tactical.

zmescience.com