

Most Popular



Belgian data finds that Moderna's COVID vaccine creates twice as many antibodies as Pfizer's



There's a huge risk to the U.S economy right now—and almost no one is paying attention

NEWSLETTERS • EYE ON A.I.

How A.I. may impact what you eat

BY **JONATHAN VANIAN**

August 31, 2021 10:02 PM GMT+3



With the help of artificial intelligence, apples may one day come packed with nutrients tailored to the people who eat them.

It would be just one of the many benefits of using deep learning, which finds patterns in enormous datasets, to uncover currently unknown links between food and health, explained Ilias Tagkopoulos, a computer science professor at the University of California at Davis. His research is a product of his role as director and principal investigator at the AI Institute for Food Systems (AIFS), a government-funded project started last year to explore how machine learning can

improve farming and food distribution.

Although advances in A.I. have led to more powerful software in some industries, Tagkopoulos said, it hasn't had much impact in agriculture. One reason is a lack of free food-related data for training machine-learning models.

One of the goals of the AIFS is to create and maintain a dataset that would be akin to ImageNet, a huge collection of labeled photos that famously helped computer-vision systems identify objects in photos, like cats. The agricultural version would include information like annotated photos of crop fields and sensor data from Internet-connected farming devices like thermometers used by farmers to monitor air temperature and humidity levels.

AIFS, which also includes researchers from Cornell University and the University of Illinois, among others, plans to clean and label all of this agricultural data and make it available for others to use for free. The group also aims to connect A.I. researchers with entrepreneurs and experts up and down the food supply chain. The reality is that venture capitalists haven't focused as much on investing in food and agriculture as in other markets like health care and enterprise software. Tagkopoulos hopes that AIFS will serve as a salon that helps bring the disparate parties together, with access to agricultural data being a key element to kickstart the push.

“The reason we had the Model T and that Ford was able to create this mass-produced car was because we had the ecosystem,” said Tagkopoulos, referring to the existing factories and supply chains for industrial products in the early 20th century.

By promoting machine learning in agriculture, AIFS hopes scientists will be able to achieve a huge milestone—the creation of genetically modified food that is filled with nutrients and properties tailored for certain groups of people. Diabetics, for instance, would be able to buy food that is better for them on a molecular level than what is currently available.

This utopia is years, or possibly decades away, Tagkopoulos explained. And to reach this goal, researchers will need a lot of data—the fertilizer for modern A.I. software.

Jonathan Vanian

[@JonathanVanian](#)

jonathan.vanian@fortune.com

A.I. IN THE NEWS

Facial recognition comes to the markets. China's biggest A.I. firm, **SenseTime Group**, known for selling facial recognition tech, filed to go public in Hong Kong, the *South China Morning Post* [reported](#). The company plans to raise up to \$2 billion in the IPO, the report said, citing an unnamed source. However, SenseTime said in its filings that “complex and evolving” data protection laws in China could impact the company. The article notes that China has recently been “implementing sweeping changes to add additional oversight” on firms that have amassed a lot of consumer data, which has led to several Chinese companies delaying going public.

Tesla doubled down on chips. **Tesla** debuted a custom computer chip that it will use in its data centers to help train its deep learning models, CNBC [reported](#). The custom A.I. chip is part of Tesla's supercomputer dubbed Dojo, which **Tesla** chief **Elon Musk** said would be “operational next year.”

Zebra plans to get smarter. **Zebra Technologies**, an Illinois tech firm known for producing computer hardware like scanning machines and barcode readers to track inventory, said it had [bought](#) the startup **Antuit.AI** for an undisclosed amount. Antuit.AI specializes in machine learning to help companies like retailers forecast customer demand for products as well as predicting how many of those products they will need to keep in inventory. The deal follows Zebra's recent \$290 million [acquisition](#) of the warehouse robot company **Fetch Robotics**.

Machine-learning startup goes kaput. Startup **Splice Machine**, which sells data analytics and machine learning tools, has filed for insolvency, the tech publication The Register [reported](#). A legal notice on its website said, “Splice is not currently operating the technology and services platform. Meanwhile, [Limited liability company] is in the process of selling the Splice related assets.” The startup raised \$47.5 million from investors including **Accenture Ventures**, **Salesforce Ventures**, and **InterWest Partners**, according to deal-tracking service Crunchbase.

EYE ON A.I. TALENT

Property management software company **Entrata** [hired](#) **Jason Taylor** to be its

chief technology officer. Taylor was previously the CTO and chief security officer for business software firm **Podium**.

Seven Bridges [picked David J. Ramos](#) to be the healthcare data company's CTO. Ramos was previously a senior director of digital platform engineering at insurance firm **Aetna** and its parent company **CVS Health**.

The **Opportunity@Work** nonprofit that aims to create career opportunities for workers without university degrees has chosen **Kelsey Reed** to CTO, according to a [report](#) by career news service Technical.ly. Reed was a founder of the IT firm **Element of Technology** and a head of IT and engineering of **MAXEX**, a financial services tech company.

EYE ON A.I. RESEARCH

A.I. meets sea ice. Researchers from **The Alan Turing Institute**, **University College London**, and the **British Antarctic Survey** published a [paper](#) in *Nature Communications* about the use of deep learning to forecast sea ice concentration in the Arctic. The researchers developed a deep-learning system called IceNet, which they said performs better than existing statistical methods used to predict sea ice levels.

From the paper: *While the implications of accurate sea ice forecasts for shipping are well developed, we argue that they could also play a pivotal role in adaptation and mitigation strategies for sea ice loss. Predictions for the timing and location of sea ice loss can provide early warnings for the possible sea ice conditions that lie ahead, which is critical for local communities, authorities, and Arctic ecosystem conservation groups.*

FORTUNE ON A.I.

[What will Apple do about the chip shortage?](#)— By Robert Hackett

[Apple just bought a classical music streaming service](#)—By Jonathan Vanian

[Joe Biden's cybersecurity gap](#)—By Kevin T. Dugan

[The CEO of one-time unicorn HeadSpin gets arrested for alleged fraud](#)—By

Lucinda Shen

BRAIN FOOD

A.I. takes the stage. Three dramatists from London’s Young Vic theater plan to perform in a play called *AI*, which will involve on-the-spot dialogue that’s generated by the GPT-3 language technology created by the A.I. firm **OpenAI**, *Time* magazine [reported](#). The article notes that while GPT-3 has caught the attention of A.I. researchers for its ability to generate realistic text based on written prompts, it also can occasionally produce offensive and even racist language, which the dramatists expect could happen during their performance.

From the article: *When the curtain lifts, audiences won’t be met with a humanoid robot. Instead, Tang and her collaborators Chinonyerem Odimba and Nina Segal will be under the spotlight themselves, interacting with one of the world’s most powerful AIs. As the audience watches on, the team will prompt the AI to generate a script – which a troupe of actors will then perform, despite never having seen the lines before. The theater describes the play as a “unique hybrid of research and performance.”*

Related Articles

TECH

This hot startup is now valued at \$1 billion for its A.I. skills



August 9, 2021

BY JONATHAN VANIAN

NEWSLETTERS

Why Microsoft and Twitter are turning to bug bounties to fix their A.I.



August 10, 2021

BY JONATHAN VANIAN

NEWSLETTERS

Why business and academia need each other for better A.I.



July 20, 2021

BY JONATHAN VANIAN

INTERNATIONAL

SenseTime's Hong Kong IPO could be a boon for China's controversial 'A.I. dragons'

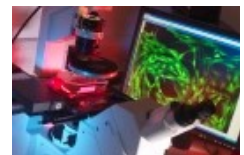


August 30, 2021

BY YVONNE LAU

NEWSLETTERS

The quest to measure A.I.



August 3, 2021

BY JONATHAN VANIAN

Rankings

- [40 Under 40](#) [Most Powerful Women](#)
- [100 Best Companies](#) [World's Greatest Leaders](#)
- [Fortune 500](#) [World's Most Admired Companies](#)
- [Global 500](#) [See All Rankings](#)

Sections

- [Automotives](#) [The Ledger](#) [Health](#) [Retail](#)
- [Careers](#) [Venture](#) [International](#) [Sports](#)
- [Design](#) [Finance](#) [Leadership](#) [Technology](#)
- [Executive Travel](#) [Energy & Environment](#) [Lifestyle](#) [Commentary](#)
- [Luxury](#)

Customer Support

- [Frequently Asked Questions](#)
 - [Customer Service Portal](#)
 - [Privacy Policy](#)
 - [Terms of Use](#)
-

Commercial Services

FORTUNE Knowledge Group

FORTUNE Branded Content

Fortune Data Store

Fortune Conferences

Advertising

About Us

About Us

Work at Fortune

Behavioral Advertising Notice

Terms and Conditions



© 2021 Fortune Media IP Limited. All Rights Reserved. Use of this site constitutes acceptance of our [Terms of Use](#) and [Privacy Policy](#) | [CA Notice at Collection and Privacy Notice](#) | [Do Not Sell My Personal Information](#) | [Ad Choices](#)

FORTUNE is a trademark of Fortune Media IP Limited, registered in the U.S. and other countries. FORTUNE may receive compensation for some links to products and services on this website. Offers may be subject to change without notice.

Quotes delayed at least 15 minutes. Market data provided by [Interactive Data](#). ETF and Mutual Fund data provided by [Morningstar](#), Inc.

Dow Jones Terms & Conditions: <http://www.djindexes.com/mdsidx/html/tandc/indexstandcs.html>.

S&P Index data is the property of Chicago Mercantile Exchange Inc. and its licensors. All rights reserved. [Terms & Conditions](#). Powered and implemented by [Interactive Data Managed Solutions](#).

Cookie Preferences

