Spotlight of the Week: 2020 Democracy in Action

Democratic AI requires a thriving democracy. Please Vote.
November 3, 2020.

Hot Topics in Business and Technology 🔥

- **Big Tech fights against election disinformation and prepares for chaos in the final week before election.** (10/27):
  - **Twitter:** On Monday, Twitter started posting warnings that users might find misinformation about voting by mail and cautions that election results may be delayed given the unprecedented number of people voting by mail.
  - **Facebook** plans to use tools developed to curb internet-fueled instability in Myanmar if violence breaks out around Election Day and expanded its pre-election ban on new political ads.
  - **Google** will turn its search products and YouTube into hubs for authoritative information about electoral processes and results.
- **Facebook demands NYU stop researching its political ad targeting:** Facebook is demanding that NYU Ad Observatory, a project to collect

data on Facebook's political ad targeting, cease its research, claiming a violation of its bulk data collection policy (10/23).

- **Uber sued for using "Biased" ratings to fire drivers:** Uber is accused of racial discrimination by using passengers' reviews to evaluate drivers, on the theory that customer evaluations may be racially biased (10/26).
- **Algorithms contribute to economic inequality:** Harvard Business Review explores another side-effect of our increasingly AI-powered society: the inequality created by a more automated workforce (10/22).
  - "There's a "code ceiling" that prevents career advancement — irrespective of gender or race — because, in an AI-powered organization, junior employees and freelancers rarely interact with other human co-workers.., they are managed by algorithms."
- **U. of Miami faces backlash amidst claims of facial-recognition technology use by campus police:** University officials denied claims it uses facial-recognition technology after students accused campus police of using software that analyzes camera footage to identify students at protests related to the coronavirus pandemic (10/20).
- **Google AI helps build the virtual border wall:** A U.S. Customs and Border Protection contract revealed that Google Cloud and Anduril Industries' Surveillance will be used on the U.S.-Mexico border (10/21).
- **Microsoft releases open-source "matrix" to boost AI Security:** Microsoft and MITRE will prepare ML applications from cybersecurity threats to detect attacks by ML systems (10/23).
- **Apple buys self-learning AI startup to improve apps and services:** Apple acquired Vilynx, a company specializing in advanced AI and computer vision technology, for $50 million, which may enhance Siri, Photos app, and the recommendation engine for TV and News (10/27).
- **Cisco's WebEx announces new conferencing software designed specifically for government:** WebEx Legislate offers features like secure voting and breakouts designed to mimic a caucus meeting as governments around the world try to function remotely and securely during the pandemic. (10/28).
- **CSET releases report on U.S. Military Investments in Autonomy and AI: Costs, Benefits, and Strategic Effects:** "This two-part analysis is intended to help policymakers better understand the scope and implications of U.S. military investment in autonomy and AI" (10/20).
- **Facebook** will expand its online graduate course in deep learning to colleges with significant Black and Latinx students to help improve the pipeline for diversity in tech (10/22).

AI & Public Health 🏥

- **AI model detects asymptomatic Covid-19 infections:** MIT researchers published a report on their newly developed AI model that distinguishes Covid-19 asymptomatic from healthy individuals through cough recordings. The team is currently working to incorporate the

model into an app, which if FDA-approved, could serve as a freely accessible and noninvasive prescreening tool to identify unsuspecting Covid-19 positive patients (10/29).

- **New research finds evidence of racial, gender, and socioeconomic bias in X-ray models:** A recent study from the University of Toronto and MIT shows that chest X-ray datasets used to train diagnostic AI and ML models exhibit imbalance, biasing them against certain gender, socioeconomic, and racial groups. (10/21).
- **New AI model predicts Alzheimer's Disease onset with 70% accuracy:** IBM and Pfizer report to have trained AI models to spot early signs of the illness by looking at linguistic patterns in word usage, indicating that AI could screen for Alzheimer's disease years before symptoms are severe enough for typical diagnostic methods (10/22).
- **SF and Alameda county phase out Alphabet Inc.'s Verily COVID-19 testing sites:** Two of the 28 counties in CA that paid $55 million to Verily to boost testing are concerned about patients' health data collection and the potential misallocation of funding intended to expand testing in low-income Black and Latino neighborhoods (10/26).
- **New experimental AI model locates best cancer drugs**: Researchers at UC San Diego recently published a paper on their new AI system, DrugCell, that matches tumors to the best drug combinations (10/22).
- **FDA flags the importance of addressing bias in AI**: The FDA's Center for Devices and Radiological Health's Patient Engagement Advisory Committee convened on Thursday to discuss issues regarding AI in medical devices. Officials stressed the necessity of ensuring diversity in the data used to train algorithms (10/22).
  - Captain Terri Cornelison, chief medical officer and director for the health of women at CDRH, highlights that a clinical study that does not identify patients' sex may mask different results for people with different chromosomes. "In many instances, AI and ML devices may be learning a worldview that is narrow in focus, particularly in the available training data, if the available training data do not represent a diverse set of patients," she said. "More simply, AI and ML algorithms may not represent you if the data do not include you," she said.
- **MIT Conference highlights opportunities for AI to aid pandemic**: MIT hosted the global "AI Cures: Data-driven Clinical Solutions" conference, where researchers presented tech developed in response to the pandemic, including epidemiological models to predict the risk of infection and death of patients and a wireless device that allows doctors to monitor Covid-19 patients from a distance (10/27).

US Federal and State Government News 🇺🇸

- **White House prepares new regulatory guidelines on AI:** U.S. Chief Technology Officer Michael Kratsios announced their near completion of a guide for agencies on how to regulate AI (10/21).

- **Baltimore City Council blocks facial recognition ban**: A public safety subcommittee of the City Council saw a split vote on a bill to ban facial recognition technology by city government agencies and, preventing them from limiting use of the technology (10/21).
- **DoD to expedite funding to adapt commercially-available AI for government use**: Officials at the DOD's Joint Artificial Intelligence Center (JAIC) issued a commercial solutions opening (CSO) on Tuesday as it looks for information on commercial AI prototypes (10/27).
- **AI Caucus hopes to build support for AI legislation through technical literacy:** The Congressional AI Caucus hopes to build support for AI legislation by educating members and staff on the technology. Caucus co-chair Rep. Jerry McNerney (D-CA) is working with other committees and the National Institute of Standards and Technology (10/26).
- **Judge rejects DOJ's continued efforts to ban Chinese app WeChat**: San Francisco Judge Beeler ruled on Friday that the newly presented evidence did not prove that the Chinese app is a national security threat, upholding her decision that allowed Apple and Google to continue to offer WeChat for download in U.S. app stores. (10/23).

AI Around the World 🌍

- **EU:** European Parliament adopted three reports outlining how to support ethical AI and innovation on Oct. 20. The first report urges the creation of a legal framework outlining ethical principles and legal obligations. The second report provides businesses with more legal certainty to encourage innovation. The last report seeks effective IP rights and safeguards for the EU's patent system. (10/28).
- **UK:** In response to the UK government's plans to finalize a consultation on Oct. 27, which could allow automated driving on British motorways, concerns were raised about the technology's safety limitations (10/22).
- **Australia and South Korean:** New research demonstrates risks by objects that trigger loopholes in AI security cameras (10/23).

Op-Eds: Top Picks of the Week 🧐

- **CRISPR co-creator Jennifer Doudna on tech ethics**: Doudna, the most recent recipient of the Nobel Prize in chemistry, relates how tech could learn about ethics from the biotech and medical fields (10/26).
  - "In health care, advances are tested to first make sure they are safe and then to see if they are effective before being released to the general public" as opposed to 'move fast and break things'.
- **Unlocking AI's Potential for Social Good:** Harvard Business Review provides a cross-analysis of the promised social improvements vs. the potential risks to equality of three developing AI technologies: human augmentation, sensory AI, and geographic AI (10/27).

- **It's time to rethink the legal treatment of robots**: MIT Technology Review presents an excerpt from Ryan Abbot's book "The Reasonable Robot: Artificial Intelligence and the Law", in which he argues that laws should treat robots more like people (10/22).
- **5 Emerging AI And ML Trends To Watch In 2021** (10/23)**.**
- **There's No Turning Back on AI in the Military:** Will Roper argues in *Wired* that in the current digital arms race with China, "the only thing worse than fearing AI itself is the fear of not having it at all" (10/24).

Upcoming Events 🥳

- The Information's Live Video Summit: "Preview of Global Autonomous Vehicle Industry in 2021," presented by SENSE Photonics: October 29.
- Stanford Partnership in AI-Assisted Care (PAC) Webinar: Join Professors Dr. Arnold Milstein and Dr. Albert Haque's co-led webinar based on their recent Nature article co-authored with Dr. Li Fei-Fei. November 9.
- Asia-Pacific Virtual Summit, hosted by Women in AI Ethics™ Collective through Australian National University: November 11.
- Information Technology and Innovation Foundation (ITIF) debate: "Is the U.S. Tax System Favoring Excessive Automation?": November 12.
- Video Webinar on Ryan Abbot's new book *The Reasonable Robot: Artificial Intelligence and the Law*, hosted by ITIF's Center for Data Innovation: November 13.

And finally, a reflection of our #NewZoomNormal,
Halloween style (h/t WSJ).
Enjoy!