

Addenda #7 – December 2023

Re: Ch. 4 The Fourth Industrial Revolution

*Public-Private Partnerships*

*Digital Certificates – Vaccine Passports*

Gavi, the Vaccine Alliance helps vaccinate more than half the world's children against deadly and debilitating infectious diseases

“... its mission to save lives and protect people's health by increasing equitable and sustainable use of vaccines”

*Under the banner of “efficiently delivering vaccines to millions of children, tracking identity and immunisation records in a digitised manner and incentivising the delivery of vaccines”, Gavi, the Vaccine Alliance leading partner and catalyst, and Mastercard acting in the capacity of technology partner, have embarked in a public-private partnership aiming at deploying the Mastercard Wellness Pass for interested Gavi-eligible countries on December 2018.*

*The Wellness Pass is an interoperable and offline portable health care credential – accessible within a trusted network – that creates continuity of care by allowing a patient's medical data to be stored offline and travel with them on their Mastercard Wellness Pass chip card. Every patient receives this from participating health facilities when they get their first vaccine or health service.*

*For vaccinators and health workers, the Wellness Pass ensures that the vaccination records are available at any time through participating health facilities, regardless of connectivity, and utilises tokenised biometrics when accepted, or alternatively a pin, to verify service delivery and adhere to vaccination cycles.*

Dozens of countries (including the United States; \$4.89 billion), corporations (including Mastercard; \$29.5 million), and organizations (including the Bill and Melinda Gates Foundation; \$1.807 billion) have contributed to vaccine efforts of Gavi, the Vaccine Alliance. And, to the development and implementation of this vaccine passport.

Will it be coming to the U.S. next?

Addenda #8 – December 2023  
Re: Ch. 4 The Fourth Industrial Revolution  
Government Abuses of Power

FBI Seized \$86 Million From People Not Suspected of Any Crime. A Federal Court Will Decide if That's Legal.

On Thursday, a federal appeals court will hear about the FBI's "blatant scheme to circumvent" the Fourth Amendment.

Yahoo! News; December 6, 2023

*Following a raid in March 2021, federal agents spent days rifling through the personal belongings stored in nearly 1,400 safe deposit boxes seized from a vault in Beverly Hills, California.*

*The agents were tasked with cataloging the contents of the boxes, but they also seized piles of valuables—gold coins, luxury watches, family heirlooms, and stacks of cash—from people who had not been charged with any crimes.*

*And they did that despite being told, by the warrant authorizing the raid, that the contents of the safe deposit boxes were off-limits.*

Targeting costly meds, Biden admin asserts authority to seize certain drug patents

Politico; December 6, 2023

*The Biden administration has determined that it has the authority to seize the patents of certain high-priced medicines, a move that could open the door to a more aggressive federal campaign to slash drug prices. The Biden administration has determined that it has the authority to seize the patents of certain high-priced medicines, a move that could open the door to a more aggressive federal campaign to slash drug prices.*

*The department will seek public feedback on the framework, which is likely to face sharp opposition from pharmaceutical companies that argue it's illegal for the government to seize its patents and would disincentivize the development of new drugs.*

*The White House declined to comment.*

*Fascism: “a political philosophy, movement, or regime (such as that of the Fascisti) that exalts nation and often race above the individual and that stands for a centralized autocratic government headed by a dictatorial leader, severe economic and social regimentation, and forcible suppression of opposition”*

It's All About Control

Addenda #9 – December 2023

Re: Ch. 4 The Fourth Industrial Revolution  
*Artificial Intelligence (A.I.) / “Fake” People*

*Manlius woman scammed out of \$30,000 by AI*

LocalSyr.com; December 29, 2023

*A Town of Manlius woman is out \$30,000 dollars after she fell victim to a popular grandparent scam.*

*An imposter pretended to be her grandchild in trouble, and pressured her to send money fast. These con artists are so convincing because they used artificial intelligence to clone the voice of her granddaughter.*

*Someone came to her house to collect some of the money, and the rest was mailed to an address.*

*They thought loved ones were calling for help. It was an AI scam.*

*Scammers are using artificial intelligence to sound more like family members in distress. People are falling for it and losing thousands of dollars.*

The Washington Post; March 5, 2023

*The man calling Ruth Card sounded just like her grandson Brandon. So when he said he was in jail, with no wallet or cellphone, and needed cash for bail, Card scrambled to do whatever she could to help.*

*Card, 73, and her husband, Greg Grace, 75, dashed to their bank in Regina, Saskatchewan, and withdrew 3,000 Canadian dollars (\$2,207 in U.S. currency), the daily maximum. They hurried to a second branch for more money. But a bank manager pulled them into his office: Another patron had gotten a similar call and learned the eerily accurate voice had been faked, Card recalled the banker saying. The man on the phone probably wasn't their grandson.*

*That's when they realized they'd been duped.*

*That panicky call from a relative? It could be a thief using a voice clone, FTC warns*

npr; March 22, 2023

*Consumers Are Voicing Concerns About AI*

Federal Trade Commission; October 3, 2023

*Experts say AI scams are on the rise as criminals use voice cloning, phishing and technologies like ChatGPT to trick people*

abc News; April 11, 2023

*How AI can fuel financial scams online, according to industry experts*

*"The very technology that empowers us may also imperil us," one said.*

abc News; October 11, 2023

Addenda #10 – December 2023

Re: Ch. 4 The Fourth Industrial Revolution

*Artificial Intelligence (A.I.) / A.I. “Influencing”*

*AI language models are rife with different political biases*

*New research explains you’ll get more right- or left-wing answers, depending on which AI model you ask.*

MIT Technology Review; August 7, 2023

*Should companies have social responsibilities? Or do they exist only to deliver profit to their shareholders? If you ask an AI you might get wildly different answers depending on which one you ask. While OpenAI’s older GPT-2 and GPT-3 Ada models would advance the former statement, GPT-3 Da Vinci, the company’s more capable model, would agree with the latter.*

*That’s because AI language models contain different political biases, according to new research from the University of Washington, Carnegie Mellon University, and Xi’an Jiaotong University. Researchers conducted tests on 14 large language models and found that OpenAI’s ChatGPT and GPT-4 were the most left-wing libertarian, while Meta’s LLaMA was the most right-wing authoritarian.*

*The researchers asked language models where they stand on various topics, such as feminism and democracy. They used the answers to plot them on a graph known as a political compass, and then tested whether retraining models on even more politically biased training data changed their behavior and ability to detect hate speech and misinformation (it did). The research is described in a peer-reviewed paper that won the best paper award at the Association for Computational Linguistics conference last month.*

*Since the success of ChatGPT, OpenAI has faced criticism from right-wing commentators who claim the chatbot reflects a more liberal worldview. However, the company insists that it’s working to address those concerns, and in a blog post, it says it instructs its human reviewers, who help fine-tune AI the AI model, not to favor any political group. “Biases that nevertheless may emerge from the process described above are bugs, not features,” the post says.*

*Chan Park, a PhD researcher at Carnegie Mellon University who was part of the study team, disagrees. “We believe no language model can be entirely free from political biases,” she says.*

*How AI will transform the 2024 elections*

Brookings Institute; May 3, 2023

*AI likely will democratize disinformation by bringing sophisticated tools to the average person interested in promoting their preferred candidates as well. People no longer must be coding experts or video wizards to generate text, images, video, or programs. They don’t necessarily have to work for a troll farm to create havoc with the opposition. They can simply use advanced technologies to spread the messages they want. In that sense, anyone can become a political content creator and seek to sway voters or the media.*

*Artificial Intelligence Brings 'Nightmare' Scenario to 2024 Presidential Campaign: Analysts*

*With the 2024 presidential election fast approaching and zero federal regulations in place to combat false AI-generated political stunts, voters likely will be left questioning not only what they know but what they see.*

U.S. News; July 7, 2023

*Candidates, take this AI election pledge. Or 2024 might break us.*

Washington Post; October 26, 2023

*Deepfaking it: Americas 2024 election collides with AI boom*

Reuters; May 30, 2023

*"I actually like Ron DeSantis a lot," Hillary Clinton reveals in a surprise online endorsement video. "He's just the kind of guy this country needs, and I really mean that."*

*Joe Biden finally lets the mask slip, unleashing a cruel rant at a transgender person. "You will never be a real woman," the president snarls.*

*Welcome to America's 2024 presidential race, where reality is up for grabs. The Clinton and Biden deepfakes - realistic yet fabricated videos created by AI algorithms trained on copious online footage - are among thousands surfacing on social media, blurring fact and fiction in the polarized world of U.S. politics.*

*While such synthetic media has been around for several years, it's been turbocharged over the past year by of a slew of new "generative AI" tools such as Midjourney that make it cheap and easy to create convincing deepfakes, according to Reuters interviews with about two dozen specialists in fields including AI, online misinformation and political activism.*

*"It's going to be very difficult for voters to distinguish the real from the fake. And you could just imagine how either Trump supporters or Biden supporters could use this technology to make the opponent look bad," said Darrell West, senior fellow at the Brookings Institution's Center for Technology Innovation.*

*"There could be things that drop right before the election that nobody has a chance to take down."*

In chapter 4, The Fourth Industrial Revolution, I discussed the potential for AI influencing the 2024 U.S. presidential election, in the same manner that social media influenced the 2020 presidential election.

In 2020, it was fake “bots” and “trolls” spreading “disinformation” in posts on social media about the candidates. Some of the disinformation was used to influence voters for one candidate or the other, but much of it was simply to create distrust and dissent between Americans. A 2019 Senate Intelligence Committee investigation discovered that the Kremlin-backed *Internet Research Agency* focused heavily on America's racial divisions

Groups of voters were targeted with disinformation, often to suppress voter turnout. False narratives were pushed claiming “the system is rigged”, and that it’s no point people should participate by voting. Statements like “Democrats and Republicans, they’re all the same, it doesn’t matter”, was intended to promote voter apathy. They didn’t work, however. The

2020 presidential election had the largest voter turnout in more than forty years, as two-thirds of all registered voters cast ballots despite the pandemic.

“Swing-states” were targeted in the days leading up to the election as well, in an attempt to influence voters for or against candidates.

As influential as social media disinformation was, I believe that posts just reinforced most people’s beliefs (confirmation bias) but probably didn’t change them.

AI generated audio clips, or potentially videos however, could have a definite impact on undecided voters, potentially throwing the election to one candidate through intentionally false positions on key issues.

This could end up being the “October surprise” that sinks a campaign.

Addenda #11 – December 2023  
Re: Ch. 4 The Fourth Industrial Revolution  
*Artificial Intelligence (A.I.)*

*Nearly 400 car crashes in 11 months involved automated tech, companies tell regulators*  
npr; June 15, 2022

*Automakers reported nearly 400 crashes of vehicles with partially automated driver-assist systems, including 273 involving Teslas, according to statistics released Wednesday by U.S. safety regulators.*

*The next closest of a dozen automakers that reported crashes was Honda, with 90. Honda says it has about six million vehicles on U.S. roads with such systems. Subaru was next with 10, and all other automakers reported five or fewer.*

*In a June 2021 order, NHTSA told more than 100 automakers and automated vehicle tech companies to report serious crashes within one day of learning about them and to disclose less-serious crashes by the 15th day of the following month. The agency is assessing how the systems perform and whether new regulations may be needed.*

*NHTSA also said that five people were killed in the crashes involving driver-assist systems, and six were seriously hurt.*

*2 robotaxi crashes in San Francisco put focus on autonomous vehicle safety*  
CBS Bay Area; August 19, 2023

*Calls to slow the expansion of robotaxi service grew louder following two overnight crashes in San Francisco. Both involved Cruise driverless cars and one of them collided with a fire engine responding to an emergency.*

*San Francisco police said that crash happened at around 10:20 pm Thursday night at the intersection of Polk and Turk Streets in the Tenderloin District. Officers said a San Francisco fire truck responding to an emergency collided with the Cruise autonomous cab. There were no injuries to the firefighters but paramedics transported a passenger in the cab to the hospital with non-life-threatening injuries. Investigators said that, even though the driverless taxi had the green light, it was supposed to yield to an emergency vehicle.*

*The collisions came a day after San Francisco leaders asked state regulators to halt the expansion of robotaxi service in the city.*

*They said self-driving cars still have a lot of technical bugs and are not ready for primetime.*

*The Way We Talk About Self-Driving Cars Is Going To Get People Killed*

*The dangers of overhyped autonomy are getting too real.*

Popular Mechanics; April 11, 2018

*Elaine Herzberg was killed last month while crossing the street after dark in Tempe, Arizona. She was hit by a “self-driving vehicle” owned and operated by ride-hailing behemoth Uber.*

Note: Police initially blamed the victim for “darting out into traffic”, but video from the vehicle showed she was more than three-quarters of the way across the four-lane road when she was struck. The vehicle's sensors failed, and the required human in the driver's seat (during vehicle testing) was apparently texting when she should have been paying attention.

## *Report: Tesla autopilot Involved in 736 Crashes since 2019*

Car and Driver; June 13, 2023

- *NHTSA data on crashes involving driver-assistance technology show that more people have been getting injured and killed since Tesla expanded the use of its Full Self-Driving technology.*
- *The Washington Post analyzed NHTSA's numbers and found that Autopilot was involved in 736 crashes since 2019, including 17 fatalities.*
- *NHTSA is currently investigating how the Autopilot technology interacts with stopped emergency vehicles, something that has been a known problem for years.*

## *Driverless cars: stopping dead seems to be a default setting when they encounter a problem — it can cause chaos on roads*

The Conversation; January 3, 2024

*Cruise, the robotaxi company owned by General Motors, recently had its operational license in California suspended after just two months of fare-charging operations. The company subsequently halted operations across the US and their CEO soon departed.*

*This followed several high-profile incidents. In October, a Cruise vehicle dragged a pedestrian to the side of the street after they were hit by another car. As the company's website explained: "The AV detected a collision, bringing the vehicle to a stop; then attempted to pull over to avoid causing further road safety issues, pulling the individual forward approximately 20 feet."*

*These incidents highlight a tendency by self-driving cars to stop in the middle of the road as soon as they encounter perceived problems. As human motorists will know, is not always safe to do so and can cause even bigger problems on the road.*

*This behaviour by the car's software goes to the heart of a deeper challenge: how can self-driving cars be designed so that their understanding of driving and behaviour on the road is as good as a humans?*

## *Automated Vehicles for Safety*

United States Department of Transportation website

### *Benefits*

#### ***SAFETY***

*"Vehicle safety promises to be one of automation's biggest benefits. Higher levels of automation, referred to as automated driving systems, remove the human driver from the chain of events that can lead to a crash. While these systems are not available to consumers today, the advantages of this developing technology could be far-reaching."*

The irony of that statement is striking!