COMMISSIONER SIMINGTON REMARKS
ARTIFICIAL INTELLIGENCE WORKSHOP

JULY 13, 2023

Good morning, and thank you to the Chairwoman for her kind invitation to give some remarks. I will try to be brief—at least, that's what I instructed ChatGPT to do in the prompt I gave it to write these remarks. Let's see how it did.

From time to time, we experience an acceleration in technological growth that gives the appearance of a step function—a break from the status quo so radical that the growth looks almost discontinuous. It is as though we went to bed one evening, and awoke the next morning to a new world. Perhaps some of us felt that way on the morning of November 30th of last year, which was the day on which OpenAI released its large language model, ChatGPT, for public experimentation. Now, we are sometimes admonished that technological changes that appear rapid are actually the result of steady, but unnoticed, evolution—that, for instance, a technology like the iPhone was actually decades in the making. Or perhaps that, like Moore's law, we have only just noticed a steady exponential process like the biennial doubling of computing power has gone discernibly parabolic.

And, indeed, artificial intelligence has been like that, in some respects. When reckoned as a basket of statistical techniques, many of the fundamentals of artificial intelligence have been well-understood since at least the 1980s, and it was that very Moorean growth in computing power that permitted their ultimate application to what we shop for, what we watch and listen to, how we drive, and who we date or marry. Just because technology gives the appearance of a sudden arrival does not mean that it was not long in the transit.

But, according to the NLP and ML engineers to whom I've spoken, LLMs really weren't like that. If you had told them in 2017 that LLMs would, a scant half decade later, be having perfectly enchanting, not to mention Turing-passing, conversations, they almost, to a person, would not have believed you. So, in at least one important respect, it would appear that a step change is upon us. And with any step change comes the chance of a misstep.

It ought to go without saying that America has long led the world in technological innovation. Bell Labs created the transistor, not to mention information theory—each of which are responsible for all of you getting here safely and on time today. Semiconductors developed by Intel and Texas Instruments helped the United States defeat the Soviet Union in the Cold War. ARPA created the rudiments of the internet, and Silicon Valley commercialized it. And as we speak, America leads the world in the new space race. What do each of these examples have in common?

Well, I will tell you what they *don't* have in common: the weight of the regulatory load placed on industry. Bell Labs was a subsidiary of the AT&T Bell System—itself a heavily regulated telecommunications monopoly. Indeed, in the early 1950s, due largely to the overhang of a Department of Justice threat of antitrust action against AT&T, Bell Labs licensed the

transistor it developed for $25,000 per license to entities like General Electric, IBM, Texas Instruments, Raytheon, RCA, Sylvania, and Sony. The DOD soon thereafter contracted with several of the licensors to develop defensive applications of the technology. The government was, truly, on both sides of the ledger there. And, obviously, the government was deeply involved in the development of the internet through the ARPANET system's implementation at universities.

But there was no regulatory mandate to develop the semiconductor market. That was driven by consumer applications that benefitted from a light touch regulatory framework and high-end defense contracting. There was no regulatory mandate for the explosion of consumer and commercial applications on the internet, that undoubtedly have benefited from their status as Title I services in their ability to flexibly and dynamically iterate—to create and scale services that have revolutionized the world economy and, in many ways, the brains of everyone in this room. And it was Lori Garver at NASA paving the way for private, commercial launch to which the Space Bureau owes, in at least some part, its ever-growing docket of applications.

So what I won't do is reflexively say that *no* regulation of artificial intelligence is a *sine qua non* for innovation. Instead, the throughline I think you can trace is that, where the United States has succeeded in technological development, it has done so through a mindful attempt to *cultivate* and *potentiate* innovation. Whether rattling an antitrust saber at AT&T in the 1950s or stepping back and letting Larry and Sergey figure it out in the 1990s, the American success stories contrast with the stories of Soviet, and more recently European, technological stagnation in the animating principles, and efficient mechanisms, of government action. In every success cited, people of good will in the United States government sought to make new things *work*.

Contrast that spirit with GDPR. GDPR takes the protection of consumer data as a goal, but gives short shrift to potentiating innovation. So in its aims, it is probably a push in economic welfare terms. That's fine . But its mechanism for achieving those aims—an impossibly complex, pan-European regulatory and enforcement scheme that varies by member state implementation, the requirements of which are brain-curdling and chill the behavior of even the most intrepid entrepreneurs—is not suited to purpose. An American GDPR for A.I. is not what we need. It is not what the American consumer needs. And it would be devastating for America's leading position in the global order.

Speaking of America's place in the global order: we are not the only ones working on artificial intelligence. That should mean at least two things to us. We should take our competition seriously—because they're really good—and we should assume that they're taking us seriously, and so we should protect what's ours. Even as advancement in artificial intelligence rushes forward, we can still use tools like ITAR and CFIUS to protect the expropriation of American innovation into the hands of our competitors—or, what is worse, our adversaries. Let's make sure that we don't give away the store, but not by keeping the shelves empty.

But let us not cast about for regulatory solutions to problems that do not exist; remedies that may, as yet, be worse than the disease. While machine learning technologies have existed for various decisioning and ranking applications for decades, so-called generative artificial

intelligence somehow *feels* importantly different to us. Scoring and ranking *feels* different when the output is a Mars sunset, a weird Balenciaga advertising parody, or a limerick. But it might be a difference in degree rather than in kind. I can't say for sure that I know yet. I don't think Sam Altman knows. I'm not even sure that Fei-Fei Li or Yann LeCun knows. And, at any rate, even if we should be led by caution in the absence of information, it is not clear to me that a rush to occupy the regulatory field is tantamount to caution. Of expert consensus and public policy implementation, there is many a slip twixt cup and lip. I can scarcely imagine what a Washington-hatched A.I. alignment scheme would look like—talk about reward hacking.

Having said all of that, there are applications of machine learning in regulated telecommunications, of course. In some respects, most visions for a shared spectral future depend on one or another implementation of machine learning in automated frequency coordination. And, to step beyond the artificial intelligence ambit for a moment, we may have some challenges presented by quantum computing in the future as it relates to carrier protection of consumer data. When these new technological issues arise, the Commission can use existing regulatory tools to address them. But, until then, whether within this building or without, I hope most of the hard work in this field is led by PhDs rather than JDs. Thank you.