Cybersecurity: The Future of Artificial Intelligence

Legislation:

Al In Government Act of 2019, <u>H.R.2575</u>- advises and promotes the efforts of the federal government in developing innovative uses of artificial intelligence to benefit the public, and improves cohesion and competency in the use artificial intelligence.

- identifies key skills and competencies needed for positions related to artificial intelligence
- establishes an occupational series, or revise an existing job series, to include positions the primary duties of which relate to artificial intelligence.

Al Jobs Act of 2019, <u>H.R.827</u>- Currently a bill that will authorize the Department of Labor to work with businesses and educational institutions to create a report analyzing the future growth of artificial intelligence and its impact on American workforce.

- The Jobs Act would collect data to analyze which industries are projected to have the most growth through artificial intelligence, and the demographics which may experience expanded career opportunities and those most vulnerable to job displacement.
- To ensure transparency, the report will be conducted in a nonpartisan manner, in collaboration with educational institutions; employers and think tanks in the tech and manufacturing sectors; and the Secretary of Commerce.

Artificial Intelligence Initiative Act, <u>S.1158</u>- Currently a bill that will organize a coordinated national strategy for developing AI and provide a \$2.2 billion federal investment over five years to build an AI-ready workforce, accelerating the responsible delivery of AI applications from government agencies, academia, and the private sector over the next 10 years.

- Establish a National Al Coordination Office, Al Interagency Committee, and Al Advisory Committee- creates a National Strategic Plan for Al R&D, facilitate coordination among agencies.
- Require the National Institute of Standards and Technologies (NIST) to identify metrics which may be used to establish standards for evaluating AI algorithms and quality of training data.
- Require the National Science Foundation (NSF) to formulate educational goals for addressing algorithm accountability, explainability, data bias, privacy as well as societal and ethical implications of AI.
- Require the Department of Energy (DOE) to create an AI research program, building computing facilities that will be made available to government/academic AI researchers, private sector users on a cost-recovery basis. Bill will establish 5 Artificial Intelligence Research Centers.

"Supporting the development of guidelines for ethical development of artificial intelligence" <u>H.Res.153</u>

Arguments:

Pros: Artificial Intelligence	Cons: Artificial Intelligence
 It will provide opportunities to reduce time commitments to routine tasks. Al gives opportunities to businesses to be more productive (Al works 24 hours nonstop) Better research outcomes- Al will help us improve our prediction capabilities in clinical research settings. Eradicates human error; Al improves healthcare Al can be used in unsafe situations- we can utilize Al to complete otherwise difficult tasks in the future. Transformation of human approach to conflict. 	 Al comes with a steep price tag, and costs a big amount to integrate into the workplace. Al will cost lesser skilled people their jobs, and thus result in a loss of employment opportunities. Al shifts power dynamic of societies. A lot of the power will be concentrated among a few nations. Al will never have the ability to make judgement calls, or understand the complexities of human need. Al creates a different definition of humanity- this includes control over several areas of human life.

Current State of The Issue:

116th Congress is working diligently to pass legislature—Al Jobs Act, Al in Gov Act, Al Initiative Act. They are all geared towards creating a safer and more secure Al future for upcoming generations.

- Despite several government tech bills which failed by the 115th Congress, the 116th is determined to pass more legislative bills towards the future of Artificial Intelligence.
- Deep-fakes, unemployment, inequality, and machine learning present the current issues regarding artificial intelligence. Many important legislative bills are being worked on to address these concerns.

Deep-Fakes

- Misleading or deceptive information is spread via media manipulation and fraudulent behavior in a coalition effort to corrupt the image of prominent politicians, and proliferate fake news.
- Harmful content, misinformation, & election tampering all revolve around deep-fakes.
- Image and video manipulation are common issues arising from the misuse of artificial intelligence.

Unemployment

- Technical feasibility to automate predictable physical activities can be simply facilitated by AI.
- Physical work and simpler tasks, especially laborious activities, can be handled by AI.
- Construction & Extraction: 45.5% of jobs heavy work; Installation, Maintenance & Repair: 35.4% of jobs heavy work; Transportation & Material Moving: 32.3% of jobs heavy work; Healthcare support: 21.9% of jobs heavy work.
- Large sectors of our workforce (main ones listed above) in the United States relies directly on manual labor for an income. If Al is integrated, millions of Americans would lose their jobs.

Inequality (Wealth Distribution)

Widening wealth gap: larger revenues for fewer people involved in the AI industry.

Machine Learning

- A final concern lies in machine learning, a method of data analysis that automates analytical model building. It is a branch of AI based on the idea that systems can learn from data.
- People are unsure how quickly machines can learn about human interaction, and the effectiveness of AI. It is difficult for machines to reflect human emotion and feeling.

Effect on Illinois's 8th District

THe 8th district of Illinois comprises of portions of Kane, Dupage, and Cook Counties.

- 1. **Cook County:** Currently, <u>Cook County</u> employs 2.56M people, 251,042 of which are directly involved in Manufacturing. One of the highest paying salary industries is the Mining, Quarrying, & Oil & Gas Extraction (\$71,505).
- **2. DuPage County:** Currently, <u>DuPage County</u> employs 494k people, 54,161 of which are directly involved in Manufacturing. The highest paying industries include Mining, Quarrying, & Oil & Gas Extraction (\$81,196) as well as Agriculture, Forestry, Fishing & Hunting & Mining (\$80,919).
- **3. Kane County:** Currently, <u>Kane County</u> employs 267k people, 45,191 of which are directly involved in Manufacturing, the largest industry. Some of the highest paying industries includes Utilities (\$100,321).

All 3 of these have a large number of employees directly involved in manual labor. All could devastate the employment sector, since feasibility to automate predictable physical activities can be facilitated by Al.

- Grow Our Economy & Creating Jobs
- Standing Up For Working Families

These two areas of interest are of importance to Raja Krishnamoorthi, and the 8th district of Illinois. Through ensuring a safer and more secure AI future, we can continue to protect these families from the dangers of AI, and ensure employment thrives, and the economy booms.