**Artificial Intelligence Revolution**

During the Industrial Revolution in England, a group of radicals called “Luddites” opposed new weaving technologies, which automated the textile sector and caused massive labor-saving in production. Their uprising was ended by the military after 5 years (1811-1816). Luddites mostly attacked the machines arguing that new technologies were fraudulent and deceptive.

Today we are witnessing another technological revolution: AI.

**Definition**: AI is a broad category of digital technologies that is capable of making human-like decisions by detecting patterns in large scale datasets (called big-data) via machine learning (ML) algorithms.

Let us discuss how AI works. First gather a large dataset which includes the decision that you would like to teach to AI. Then, using ML algorithms, AI is trained to replicate the correct decisions in the dataset. Typically, ML operates on the principles of evolution. Small changes are applied on the initial algorithm (AI) of decision making. If these changes cause improvements, then they are kept. Otherwise, there are discarded. When the success of AI is satisfactory, the iterative process is stopped.

It is believed that AI can have similar effects on the labor market that Luddites feared 2 centuries ago: unemployment, inequality, low wages, etc. That is because of the labor-saving nature of AI systems. So can we conclude that fears related to AI technologies are not well-grounded?

The answer to this question primarily depends on the following question: Is this time different? Regarding the impact of AI on our lives in the future, there is no other debate.

Today we will see two opposing views. Let us start with the “relatively” pessimist claim by Martin Ford, which Ford thoroughly articulates in his book “The rise of the robots”. ([www.libgen.is](http://www.libgen.is))

Ford argues that the AI revolution is different due to 3 main factors.

1. Winner-take-all phenomenon: A successful AI system replaces all its alternatives – be it human or non-human. This means the developers of any single AI system could destroy a whole sector of production or service.

Ex: Netflix vs. Blockbuster.

This would imply disappearance of very large economic sectors with substantial employment opportunities, and therefore a surge in unemployment and imploding wages. For example, Netflix has 8000 employees all over the world. Blockbuster employed almost 80.000 people only in the US.

There is no rivalry in consumption or use of digital platforms, online technologies, and AI systems. That is the reason why these new technologies cause “winner-take-all” phenomenon.

1. Decreasing returns to education: New AI technologies can perform tasks that require the highest cognitive skills and experience. For example, in biotechnology, new AI systems conduct scientific research and design DNA. The secret to the AI’s success is “machine learning”. As long as there are solved examples, machines can learn how to do it.

This means getting better and more education cannot help us to outcompete AI in the labor market.

1. Machine learning will never stop: Training AI algorithms more only requires more data. As long as we collect data on any decision making task, it can be automated by our computers. The issue is that this can continue without any development in computing power of our computers.