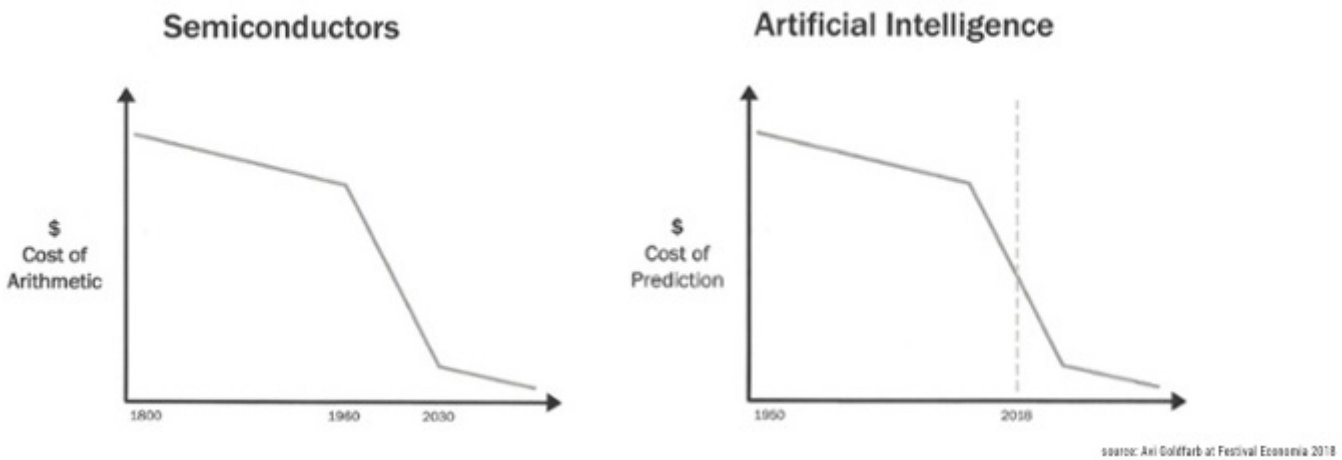
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MAGAZINE

“When the cost of artificial intelligence goes down, extraordinary things will happen”. Interview with Avi Goldfarb

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Predictive systems, those that with AI allow to anticipate answers about the future, will cost less and will be more and more effective. Avi Goldfarb, professor of Marketing at the University of Toronto, tells us why during the 2018 Festival of Economics.

The Canadian professor’s thesis is based on the comparison with the **collapse of the cost in arithmetic calculation**. Since the 1960s, there has been a steady decline in the market value of computers and computing power in general. Goldfarb anticipates that the same will happen for the Artificial Intelligence **predictive systems**, thanks also to the increase in data available to machines.



This will affect many **decision-making processes**, ranging from the calculation of risk on possible loans to the selection of possible candidates for a job: "***More and more often we use predictive models in the selection of staff*** – explains the University of Toronto professor – *Many steps are supported by algorithms: posting an application, the selection of candidates and the interview. In particular, CV screening is increasingly being done by algorithms. These are not as effective as they could be, but they are good, and they are much more efficient than human beings, particularly in reading over 300 resumes. Humans are very good at a few cvs, while they are not as good when the number of*



ems is not like that. "

The mobile devices we use every day are also full of Artificial Intelligence, with **predictive systems** that, for example, indicate the times when we will reach the workplace, the grocery store or the nearest gas station. All **suggestions** that allow us to support our choices. To date, however, **judgment** remains a **prerogative of human beings**. To Golfarb, this mainly has to do with a matter of costs/benefits, it is difficult to think that a decision is delegated to Artificial Intelligence when it could be counterproductive: "***It is the people who understand the value of things***. *Prediction machines are there to serve us, they are tools. And so our task is to understand what matters to us and what to do with these tools. It is true that over time, with sufficient data, a machine can learn to predict what a human being will decide to do in a given situation, but at that point it will always be a human being who decides whether it is worth that the judgment be provided by the machine or not* ". In this regard, in the conference conducted by our researcher Massimo Zancanaro, Goldfarb brings us the example of "I Robot", in which Will Smith's life is saved by

androids to the detriment of a girl. The probability calculation gave only a 11% chance of survival to the child, while the star of the film was given a 45% chance. The machine decides based on the numbers of its predictions, while a human being, presumably, would make different choices. A demonstration of the fact that it is very difficult to delegate the judgment, even when calculations

The possibility of improving algorithms and making them more effective and less expensive is mainly linked to the presence of data. We asked the Toronto professor if **privacy** could somehow influence this process: "*Data is one of the key elements in the growth of AI systems. It is clear that when a restriction is imposed in the flow of data, it will also produce a* ***slowdown in the potential*** *of Artificial Intelligence. But I don't find anything wrong with this. When there is a lack of elements for the progress of a technology, really intelligent scientists will find other ways moving innovation somewhere else.* "

Despite AI ??and its progress, we are still very much tied to uncertainty. A concrete example are airport waiting areas. If predictive systems worked well, those areas would be useless. But Goldfarb believes that something different awaits us in the future: "***If predictive calculation becomes much less expensive, extraordinary things will happen****. The difference between what is happening now and what is expected to happen in the future will depend only on the time we will take to move from the current situation to the one in which predictions will be really inexpensive.* "

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- Avi Goldfarb - official website: https://www.avigoldfarb.com/
- The book "Prediction Machines: The Simple Economics of Artificial Intelligence": https://www.amazon.it/Prediction-Machines-Economics-Artificial-Intelligence/dp/1633695670/ref=asap_bc?ie=UTF8

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