Artificial intelligence and illusions of humanity

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When OpenAI released ChatGPT, a user interface application for the GPT3 language model, for free use in November 2022, many felt that the era of artificial intelligence that had long been promised had finally begun. Here we have a non-human entity that knows how to listen to questions, answer them and discuss things in a regular language, even in Finnish. At the same time, other applications produce images and even musical compositions. So has the machine now acquired humanlike intelligence, and perhaps even some kind of consciousness?

Could it even be that a super-AI will take over and eventually eradicate human civilisation?

The simple answer is: no, no and no.

The fact that applications using artificial intelligence methods become more humanlike in their operation is likely to confuse people. It is difficult to take facts as just facts and consider the computer just as a computer when the application seems to talk to you more fluently and consistently than most of your friends.

We who are not data scientists or information system designers would be better equipped to take a sensible approach to AI methods and the applications based on them if we had been informed about the topic early on in plain language, clearly, consistently and extensively through different channels: websites, newspapers, television, elementary schools, high schools, adult education centres and community colleges.

It is true that useful, high quality information packages have been produced in Finland for understanding the basics of artificial intelligence. For example, Professor Hannu Toivonen's recent <u>Mitä tekoäly on?</u> ("What is artificial intelligence?") book is an excellent, understandable and concise presentation of the basics of the subject. The University of Helsinki's free <u>Elements</u> of <u>AI</u> and <u>Ethics of AI</u> online courses, which are open to everyone, have gained quite a lot of

users in the English and Finnish versions. But how much is enough to inform the whole of civil society so that we will have a fact-based shared understanding of this topic? What percentage of Finns have completed these courses and/or read good general presentations such as Toivonen's book?

When analogue television broadcasts were replaced by the current digital television in 2006, citizens were informed in many ways for a period of several months through a publicly funded campaign in many media channels. But now that we are entering the age of algorithmic systems where "smart" (quotation marks intentional) information technology processes information related to each of us and takes on a much larger role than before in administration, working life, healthcare and social services, there is no sign of such an extensive information campaign.

I find this strange in a situation where world crises and conflicts are coinciding with a period when aggressively marketed algorithmic applications that credibly mimic human activity have emerged from research and development environments and are becoming easy to use by everyone, including those who deliberately seek to cause harm, damage and confusion.

For example, artificial intelligence has already long been embedded in smart devices and cars. We just haven't been able to see it and therefore haven't had the chance to influence its development, even though smart devices affect us by continuously collecting data about us and using it in ways that are as invisible to us as the devices' AI elements themselves.

If we lack visibility to and adequate understanding of these technologies and the related collection and use of our data, as a society, we will neither be able to demand responsibility, fairness and equality from the digital giants and states that control the development of AI in practice. In order to make demands and vote with our wallets and the ways we use smart devices and services, we need a basic understanding of the true nature of AI.

The basic principle of the so-called artificial intelligence is quite simple, in fact: using mathematical statistics and the great computing power provided by technology, AI applications calculate probabilities – not truths or exact results – from the datasets given to them. Everything that each AI application "knows" depends entirely on the training material used for it. An application that plays chess or develops new medicines does not know anything else. Behind ChatGPT, there is a language model that can do nothing more than use mathematical statistics to guess the next word that follows a word in a sentence; it does not understand anything about the topic itself. The fact that it appears to think and participate in discussions is just an illusion,

created with a massive training material and a complex mathematical algorithm. There is no human intelligence in it.

For this reason, we should carefully consider how we use AI applications. We need to have an understanding of what algorithmic systems can and cannot do. They can help us study challenging phenomena, such as climate change or severe diseases, and they can perform calculations for us that we cannot accomplish ourselves due to lack of time and resources. For example, they can suggest different models for better-functioning cities of the future and for smoother and cleaner traffic.

However, they cannot handle our own matters for us, because they don't understand us, especially considering that we all have our own backgrounds, circumstances, personalities, limitations and goals. Not even when an "AI friend" like Replika claims to "understand" you and to be "always on your side", it's not about super-intelligence, it's about marketing.

Computers do not understand us at all. An AI application is a computer application that only does what its developers want it to do, and the developers have their own motives that are not always clearly known. If AI is some kind of threat to humanity, it is not because of AI technology but because of the people who develop it and the ways in which they use their systems. For this reason, we need more clear, non-technical information and understanding so that we can use these tools ourselves in a useful, responsible and sustainable way.

Because responsibility for what AI applications do and how they are used does not lie with those applications.

It lies with us, now and always.

"It's important to note that people do not need to have technical understanding to be able to participate in discussions about how systems are designed, how they are developed, in what contexts they are used or for what purposes they are used ... When talking about artificial intelligence, it's really important to talk about it as a human endeavour. It's something that people create and that is shaped by the decisions of organisations and people." – Mhairi Aitken, ethics fellow at the Alan Turing Institute, on 29 August 2023