Artificial Intelligence: The Coming Age [C1]

A differenza di chi ritiene che l'intelligenza artificiale sia una minaccia per il mercato del lavoro e persino per l'estinzione umana, la dott.ssa Suzanne Livingston spiega come i progressi tecnologici possano aiutarci ad affrontare i problemi sociali, fare un uso più efficiente delle nostre risorse, creare posti di lavoro migliori e garantire la nostra sopravvivenza.

In Novacene: The Coming Age of Hyperintelligence, environmental thinker James Lovelock argues that the Anthropocene, a period when human activity has dominated the planet, is over and we now live in the Novacene, an age in which new beings emerge from artificial intelligence (AI) systems. These **hype**r-intelligent beings work alongside humans, protecting and **enhancing** the planet's health, and **ensuring** that the intelligence of Earth survives and prospers. Lovelock, creator of the Gaia theory, wrote the non-fiction book when he was a hundred years old. He died in 2022, but lived to see AI become a subject of phenomenal interest and mass speculation.

THE EXHIBITION

In 2019, the same year Lovelock's book was published, the exhibition AI: More than Human opened at the Barbican in London. Curated by Dr. Suzanne Livingston and Maholo Uchida, the show has since travelled to Europe and China, evolving with the development of new AI technologies.

HUMAN SOFTWARE

To find out more, Speak Up contacted Dr. Livingston. An expert in the philosophy of cybernetics, she works as a strategist helping organisations plan their future based on technological developments. **Putting together** the exhibition was a challenge, she admits: how do you make accessible something that is "just mathematics", and that is evolving across disciplines in so many different ways? As she explains, it is part of our human software to want to **surpass** ourselves: **Suzanne Livingston (English accent)**: There

are all kinds of theories; psychoanalytic theories about robotics and doppelgängers and how they help our development and our sense of identity and place in the world. Obviously, the stories of Frankenstein, but it goes all the way back into the history of religions and into animism, and even in medieval times, the efforts to create a human being using alchemy. So there's something in us as human beings interested in creating mirror images and when those mirror images come to life we find it **thrilling** and terrifying.

SELF-CORRECTION

One big **concern** about AI is its propensity to manipulate: that it replicates gender and racial **bias**, that it can reproduce convincing disinformation very quickly, and that it might 'hallucinate': the term used when AI insists on something factually incorrect. To what extent can we trust a machine? Humans should take responsibility for these issues, says Livingston. While an AI can be **prompted** by a human, human education from a young age is important. **Suzanne Livingston**: We've had disinformation **since the dawn of time**. The problem is, now things are operating with a speed, on a scale, with a reality that's **unlike** anything we've seen in the past. We need to be developing our own critical faculties. We need to really **think hard** about what we buy, what technology we use, what information we give to it, how we vote, the role we play as citizens in this society. AI in war is an important topic for sure and there's important lobbying to make sure that there are limits on that. And AI is being used to correct its own problems: to discern what content has been made by AI, to address and correct the very problem of **bias**.

FAST AND SLOW

Speculation can **hype** one area of AI over another. In 2020, a language model AI called GPT-3 was released to acclaim as open source software by the company OpenAI. Its successors, GPT-4 and the closed source ChatGPT have competitors in Microsoft's Bing, Google's Bard and Meta's LLaMA. But interest may not reflect or even provoke actual progress in AI, says

Livingston. **Suzanne Livingston**: During the pandemic, AI wasn't being discussed at all, although AI helped a lot in terms of drug discovery and **tracking** infection and helping analyse scans in hospitals. Since then, there's been a **surge** in AI and creativity: the idea that this piece of technology could synthesise all of human knowledge and give you a comprehensive answer to almost any question was amazing! But I've been using it more recently and I've not found it so good.

WHAT ABOUT MY JOB?

Even **highly-skilled** jobs in law, finance, engineering or culture are at threat from AI-**driven** automation. However, says Livingston, for the moment AI is changing jobs rather than replacing them. It is up to us to keep up to date, and keep an eye on unethical business practices that use AI as an excuse. **Suzanne Livingston**: There's a **lag** between where the technology is going and the legal **frameworks**, but I believe that problem is one between the **employer** and the **employee**... in large businesses, small businesses, us as consumers working out how we want to **engage**, what we **buy into** and what we don't **buy into**, not being **steamrolled** by value systems that we don't agree with. That's not to say that there won't be scenarios where the technology **has gone rogue**; pirating of people's voice and image and identity ... But we've had the problem of piracy for decades and there are laws around it, so I hope that we **will catch up**.

HUMAN EXTINCTION

Some people think AI will rise up and kill us all. We asked Livingston about that. **Suzanne Livingston:** That question about human extinction **is wiping out** a lot of other very important conversations, **not least** the question of climate change. And for as much as it can be seen as a huge threat to life, it could be something that really helps us make much better uses of the planet, much more efficient uses.

SOCIAL DEVELOPMENTS

So be optimistic, **urges** Livingston. **Suzanne Livingston**: Optimism for AI means optimism for everything. The areas of AI that I'm particularly interested in are those areas which are about solving social problems: AI to help treat cancer, AI to balance the world's energy supply or AI to help autistic kids be more appropriately educated at school. These developments are quite incredible.

THE GAIA THEORY

In 1972, scientists James Lovelock and Lynn Margulis hypothesised that Earth and its biological systems behave as a huge single entity. Calling the idea the Gaia theory, after the Greek goddess of Earth, they **posited** that organisms on Earth interact with their inorganic environment to form a synergetic and self-regulating system that created, and maintains, the conditions that make life possible. While the theory is controversial, it remains very popular and has shaped the science community's understanding of global warmings.

Glossary

- **surge** = impennata
- **highly-skilled** = altamente qualificati
- **posited** = proporre
- **ensuring** = garantire, assicurare
- **thrilling** = emozionante
- **think hard** = pensare attentamente
- **hype** = promuovere, pubblicizzare
- **buy into** = accettare, lasciarsi convincere
- **steamrolled** = schiacciare, sbaragliare
- **employee** = dipendente
- **concern** = preoccupazione
- **lag** = ritardo
- **engage** = coinvolgere
- **will catch up** = mettere al corrente
- **Putting together** = mettere insieme, organizzare
- **bias** = pregiudizio
- **prompted** = suggerire, indurre
- **unlike** = a differenza di
- **frameworks** = quadri
- **employer** = datore di lavoro
- **driven** = impulsare, guidare
- **not least** = in particolare
- **surpass** = superare
- **since the dawn of time** = fin dalla notte dei tempi
- **urges** = incoraggiare
- **enhancing** = migliorare
- **tracking** = monitorare
- **has gone rogue** = fuori controllo
- **is wiping out** = spazzare via