

‘A global guide to the crossroads of AI in the age of ecological crisis’

by Adele Howard

“Humanity is at a crossroads, now facing both an ecological crisis in a warming planet and the anthropological predicament of humanity’s future in relation to Artificial Intelligence (AI).

Pope Leo in *Magnifica Humanitas* exercises his deep concern “to safeguard and value the grandeur of humanity that has been given to us as gift.” (MH 90). While Pope Francis in *Laudato Si’*, with his understanding of integral ecology and the technocratic paradigm, called all people of goodwill to care for Earth, our common home, (MH 43) the focus of *Magnifica Humanitas* is about preventing the domination of AI over humanity (MH 100) and “building a world in which everyone can flourish” (MH 13).

Taking a perspective from Oceania, Australia has 278 data centres, essential for storage and processing of AI technologies, and is a key global location for new digital infrastructure. Companies such as Microsoft and Amazon Web Services recently committed to multibillion-dollar investments here, attracted by our political stability, security and vast landscape.

Data centres, while using copious amounts of electricity and water, require large quantities of lithium batteries and diesel-fuelled backup generators. These are serious concerns for environmental safety and air quality in residential neighbourhoods where local communities, deprived of consultation, are confronted by noise, visual pollution and fire risk.

Currently, AI data centre investors are not legally mandated to generate their own renewable energy, despite the serious work being undertaken in Australia to foster renewable energy sources. Nor are they required to consider the available water resources in this arid country.

Magnifica Humanitas is a clear teaching about the guiding principles to be used in the face of the benefits and costs of AI developments. These principles - the common good, the universal destination of goods, subsidiarity, solidarity and social justice - have been outlined by Pope Leo from the long tradition of Catholic Social Teaching (MH 59-81). In the first two chapters of his encyclical, Pope Leo painstakingly traces their history and development, laying the groundwork and backdrop for his exploration of AI in the following chapters. “From the perspective of the Church’s Social Doctrine”, he writes, “the key issue is not the use of technology as such, but the vision that underlies it.” (MH 117). “If, however, technology is integrated with a wise perspective, it can become an instrument of growth, justice and fraternity.” (MH 180)

These developments in AI, while carrying enormous possibilities for good, call for “a measured and vigilant approach.” (MH 100). “We cannot consider AI to be morally neutral” (MH 104) states Pope Leo, therefore, “AI must be disarmed, welcoming and accessible.” (MH 110)

According to Anthropic, one of the leading AI companies, “AI that can build itself would be a major development in the history of technology – one that could bring enormous good for the world in science, healthcare and beyond. But full recursive self-improvement (RSI) also might increase the risks of humans losing control over AI systems. If systems are capable of fully building their own successors, the ways we secure them, monitor them, and shape their behaviour all grow much more important.”

A co-founder of Anthropic spoke at the launch of *Magnifica Humanitas* requesting further dialogue with the Vatican over growing concerns that ethical principles for operating and development in AI environments need greater regulation, guidance and wisdom.

Clearly, ethical guardrails and regulations need to be developed swiftly in relation to the power and intelligence of AI computer models. It is because of their power, writes Pope Leo, that they require “a new spiritual, ethical and political framework” (MH 93). There also needs to be greater transparency and public awareness of the vast depletion of natural resources that are going to be an outcome of the building and use of these data centres. “It is essential”, he says, “to develop more sustainable technological solutions that reduce environmental impact and help protect our common home “(MH 101)

Complicating governance and safety questions is the need for an examination of the ethical basis on which AI companies will make greater profits. What is the promise and what is the actual quantifiable ‘product’ being traded, and on what ethical basis is the ‘product’ identified as ‘tokens’ with an attribution of price and value?

Is AI trading in the commodification of human intelligence? And, if so, is the market value of access to aggregated human knowledge, through generative AI, a fair or valid transaction? Where in this process is the respect and associated reward for the use of the intellectual property (IP) of humanity’s creative data?

Considering the immense profit and power emerging for investors in AI-related technologies, how can these vast profits be used to ensure equity, respect, human flourishing and the common good? (MH 104)

From the beginning of his pontificate, Pope Leo has alerted the world to the challenges of AI and spoken with a consistent voice and message about peace. His is a leading global voice of concern about the impact of unregulated AI and the need to establish a response. *Magnifica Humanitas* is explicit and detailed, explaining that “calling for prudence, rigorous evaluation and even, at times, a slower pace in adopting AI does not

mean opposing progress; instead, it is an exercise of responsible care for the human family.” (MH 106)

In the face of the issues being addressed by *Magnifica Humanitas*, questions arise for people of faith about discerning and responding to the Word of God in these emerging technologies that, as yet, have no known boundaries. *Magnifica Humanitas* is an invitation to reflection, prayer and a new articulation of humanity’s place in our evolving relationship with all creation.

As with climate change and environmental challenges, what is at stake here is the future of humanity and the planet. Therefore, the guidance of these AI developments cannot be left to market forces alone, nor to a handful of extremely wealthy and powerful AI-related owners and their companies.

In response to these serious concerns about the emerging capabilities of AI technologies to dominate humanity, it is timely to endorse multiple calls for a global entity that would provide guidance and regulation. This entity should have research, advisory and public reporting responsibilities, underpinned by the regulatory authority of those nation states and other influential actors which are willing to align and work together.

Such an entity could offer our world the guiding wisdom, depth of scientific knowledge and the ethical principles about a safe future with Artificial Intelligence for a flourishing humanity. ‘*Magnifica Humanitas*’ is the foundational document for such a body.”

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