

An Introduction to “Artificial Intelligence” or “AI”

Saint Agnes School

Dr. Michael Hoefer, Professor of Computer Science at the University of St. Thomas
& Dr. Faith Pawl, Theology and English Literature Instructor at Saint Agnes School

Opening Questions to Consider:

1. Is “AI” or LLM technology ordered to the truth, and what is the impact or result of this?
2. What happens when humans “outsource” skills/capabilities to technology and machines?
3. What impact does “AI” LLM technology have on human interactions?

What is “AI” or “Artificial Intelligence”?

Artificial Intelligence is a computer program (much like a calculator) that has *inputs* and *outputs*. The “AI” calculator is programmed to compute an answer or output through pre-programmed formulae. A better term for “AI” may be “Large Language Model (or LLM)” because its inputs are *words*, and the output is a combination of words based on language models (“representation of language”). “AI” LLM programs are “trained” by billions of inputs of websites, texts, books, words, languages, information, and “seeing” lots of examples of texts and word combinations. These inputs are tagged to numbers and coding, which allow the LLM computer program to manipulate words and generate new text output that *imitates* human writing/speech at the request of the LLM user.

It's important to note that the “training” or inputs that inform these “AI” Learning Language Models are anything and everything – things that are true, untrue, opinions, interpretations, lies, etc. Likewise, companies that run large “AI” LLMs control the inputs and the formulae with their social and political biases. Unlike a calculator for math, the output or “answer” of a LLM is often different or changing based on its inputs and pre-programmed formulae.

To be clear, “AI” is not *sentient* – meaning it is not *intelligent* or *conscious* like a human being; it does not think, it *processes* information. It is a computer algorithm or program that has been pre-programmed to produce a certain result that only imitates human thought, writing, and speech.

Security, Safety, & Privacy:

Anything that a person puts into an “AI” Language Learning Model (such as ChatGPT) instantly becomes public and part of the LLM program online. Therefore, never put private, personal information into any “AI” platform (or social media, for that matter).

Concerns about “AI” or Large Language Models:

To begin, a great question to ask when thinking about a new technology: *Is the capability or skill offered by the new technology fundamental to being human or the human experience?* For example, think about how GPS, “Google Maps”, or other phone apps make it very easy to travel to various locations (e.g. the football game, a coffee shop, a certain store across town, a friend’s house, etc.). This is often helpful, but think about how this technology has diminished a human capability: a person’s ability to navigate the roads of the Twin Cities, for example, on their own, understanding where things are located and confidently navigating without outside help.

When it comes to “AI” and LLMs, there are greater ethical concerns and ramifications for the human person and community. These LLMs offer capabilities that first “outsource” and ultimately diminish human thought, creativity, and communication. These human capabilities (i.e. reading, thought, creativity, speech, and writing) are very much at the heart of what is unique about the human person, created in God’s image and likeness. Let’s not “outsource our thinking” to machines.

Advice for Students Interested in Using “AI” or LLMs:

The advent of “AI” and LLM technology only increases the need for a classical liberal arts education/formation and Christians who are thoughtful, creative, and moral/ethical individuals. While “AI” makes technical skills easier to acquire, it cannot replace the cultivation of the mind and heart, an education in truth, beauty, and goodness alongside formation in the virtues and the moral imagination. Let’s approach it with caution and see “AI” technology as a tool that can assist us, while also being realistic how it has an immensely powerful ability to diminish our humanity, and become a dangerous and harmful tool to control and manipulate individuals and even large groups of people. Let’s not ever allow “AI” to become a barrier or buffer between human beings in interaction, whether speech or the written word. As humans, we owe it to each other to be authentic when we communicate. St. John Henry Newman’s motto was *Cor ad Cor Loquitur* (the heart speaks to the heart), let us always follow his example and communicate with our own words, mind, and heart. To entrust such a fundamental aspect of human existence to “AI” is not only inauthentic but lacking honesty and integrity.

Guiding Principles for Engaging Technology and “AI”:

- **Principle I: *We must think for ourselves***

“AI” and LLMs are not governed by the truth in the outputs or “answers” they provide to users. To be frank, “computers don’t care” because they aren’t sentient, conscious, moral beings with a soul. An LLM’s outputs are only as good as its inputs and pre-programmed formulate. Remember: human beings program “AI” LLMs; they aren’t unbiased.

- **Principle II: *We want to be authentically free***

We want to actualize our full capacity and potential as human beings. We need wisdom to discern what human skills/capabilities we are willing to “outsource” to machines, and if those negatively affect or diminish our humanity. Reading, writing, thinking, and communicating are at the core of what is unique to our humanity, created in God’s image and likeness, exercising our free will.

- **Principle III: *Authenticity & Integrity***

Your teachers, friends, parents, and others want to know your authentic voice, mind, and heart – we want to know your own ideas, thoughts, and see how you are growing intellectually and maturing spiritually and morally – your very humanity. We want your “real presence” – only real human beings will preserve human dignity and freedom, so “keep it real”! Let’s “leverage technology for the good... not for the stupid” and avoid “the robot apocalypse!”

Prophetic Words from *Gaudium et Spes* (Second Vatican Council, 1965):

Today's spiritual agitation and the changing conditions of life are part of a broader and deeper *revolution*. [...] This scientific spirit has a new kind of impact on the cultural sphere and on modes of thought. Technology is now transforming the face of the earth, and is already trying to master outer space. [...] How is the dynamism and expansion of technology to be fostered without losing a living fidelity to the heritage of tradition? This question is of particular urgency when a culture which arises from the enormous progress of science and technology must be harmonized with a culture nourished by classical studies. All the endeavors of technology, though useful, cannot calm man’s anxiety; for the prolongation of biological life is unable to satisfy that desire for higher life which is inescapably lodged in the human heart. [...] In the face of these immense efforts which already preoccupy the whole human race, men agitate numerous questions among themselves: What is the meaning and value of this feverish activity? How should all these things be used? To the achievement of what goal are the strivings of individuals and societies heading? [...] Our era needs wisdom [truth, beauty, and goodness] more than bygone ages if the discoveries made by man are to be further humanized. For the future of the world stands in peril unless wiser men are forthcoming. [...] It is, finally, through the gift of the Holy Spirit that man comes by faith to the contemplation and appreciation of the divine plan.