

Artificial Intelligence

Kerby Anderson



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Elon Musk and thousands of prominent computer executives and artificial intelligence experts signed an open letter calling for a pause on all AI research. They are concerned that AI research is moving too fast and poses a danger to society.

In a rather humorous interview, Mark Zuckerberg was asked to fill out a captcha test to prove once and for all that he's not a robot. But isn't it interesting that nearly all of us spend some of our time trying to prove to robots that we are not robots? Apparently, our human brains are still better at recognizing a stop sign, motorcycle, or boat than computers. But experts believe that computers and robots will soon exceed every human ability including that one.

History and Application of AI

The term artificial intelligence was coined in 1956 by the American computer scientist John McCarthy. He defines it as "getting a computer to do things which, when done by people, are said to involve intelligence." Unfortunately, there is no standard definition of what constitutes AI. Part of the problem is the lack of agreement on what constitutes intelligence and how it relates to machines.

McCarthy proposes that, "Intelligence is the computational part of the ability to achieve goals in the world. Varying kinds and degrees of intelligence occur in people, many animals, and some ma-

chines." This would include such capabilities as logic, reasoning, conceptualization, self-awareness, learning, emotional knowledge, planning, creativity, abstract thinking, and problem solving.

Researchers have for decades hoped to build machines that could do anything the human brain could do. Progress was slow for many decades but has accelerated in the last few years. A significant breakthrough occurred in 2012, when an idea called the neural network shifted the entire field. This is a mathematical system that learns skills by finding statistical patterns in enormous amounts of data.

For example, such a system, by analyzing thousands of cat photos, can learn to recognize a cat. This is how Siri and Alexa understand what you're saying, identify people and objects in Google Photos, and instantly translate dozens of languages.

The next big step came around 2018 with large language models. Companies such

as Google, Microsoft, and OpenAI began building neural networks trained on vast amounts of text including digital books, academic papers, and Wikipedia articles. Surprisingly, these systems learned to write unique prose and computer code and to carry on sophisticated conversations. This breakthrough has been called "Generative AI."

These AI algorithms are based on intricate webs of neural networks and allow for what is considered "deep learning." These advanced AI systems collect huge amounts of data and can correct mistakes and even anticipate future problems.

The benefits are significant. Factory automation, self-driving cars, efficient use of resources, correlating massive amounts of data, and fewer errors in medical diagnoses are just a few of the many ways in which AI will improve our lives in the 21st century.

The latest advance comes from Chat-GPT. The GPT stands for "Generative Pre-trained Transformer," which is a program that has been developed to write like a human. It was developed by OpenAl, a San Francisco-based Al firm founded by Elon Musk. Its primary goal is to "generate human-like texts based on the input provided by the user." Users can impute information and then turn the Al computer loose to write essays, blogs, emails, memos, or computer code.

GPT-4 is the latest version. It allows users to provide input in text and image forms. It has produced human-like performances on several academic and professional benchmarks and has even passed the bar exam and LSAT. What ChatGPT-4 is trying to do is produce a reasonable continuation of whatever text is already put into its database. It approximates what someone might be expected to write after reading billions of webpages.

There are limitations. ChatGPT-4 is trained in using statistical patterns of language. Sometimes the AI computer cannot understand a user's context and might generate technically valid responses without broader context in the real world. It also has a limited long-term memory. Therefore, it might struggle to maintain consistency in texts or during chats. Until recently, it was not associated with the internet, so it could not generate content on the latest events or current affairs.

Dangers of Artificial Intelligence

The authors of the open letter on AI warn that human beings are not ready for a powerful AI under present conditions or even in the foreseeable future. What happens after AI becomes smarter than humans? That is a question that bothered Eliezer Yudkowsky. In his opinion piece for *Time* magazine, he argued that "We Need to Shut It All Down."

He warned that "Many researchers steeped in these issues, including myself, expect that the most likely result of building a superhumanly smart Al, under anything remotely like the current

circumstances, is that literally everyone on Earth will die." He doesn't think this is merely a possibility but believes it is a virtual certainty.

He uses this illustration to drive home his point: "To visualize a hostile superhuman AI, don't imagine a lifeless book-smart thinker dwelling inside the internet and sending ill-intentioned emails. Visualize an entire alien civilization, thinking at millions of times human speeds, initially confined to computers—in a world of creatures that are, from its perspective, very stupid and very slow."

Bill Gates understands both the benefits and dangers of Al. He explains that the "development of Al is as fundamental as the creation of the microprocessor, the personal computer, the Internet, and the mobile phone." While these changes in how we work, learn, and communicate are good, there is also "the possibility that Als will run out of control."

He asks, "Could a machine decide that humans are a threat, conclude that its interests are different from ours, or simply stop caring about us?" He recognizes that "superintelligent Als are in our future" and that they "will be able to do everything that a human brain can, but without any practical limits on the size of its memory or the speed at which it operates." However, these "strong Als" will "probably be able to establish their own goals." Those would likely conflict with our best interests.

These tech leaders aren't the only people concerned. One Pew Research poll found that 72 percent of Americans "express wariness or concern about a world where machines perform any of the tasks done by humans." That is more than double the number (33%) who were enthusiastic about the prospect. In another *Time* magazine article, "Artificial Intelligence: The Future of Humankind," European lawmakers are putting together rules and regulations to govern the use of artificial intelligence.

Notice the number of dystopian movies

where the machines have taken over. That would include movies like, 2001: A Space Odyssey, Avengers: Age of Ultron, iRobot, the Matrix series, and the Terminator series. That is why the average citizen, along with AI experts, fear how AI will be used in the future.

Biblical Perspective

Perhaps the biggest danger posed by AI is the lack of ethics. Unfortunately, our scientific research and technological development follows a technological imperative: "if we can do something we should do it." We have seen in other areas of science how our technology is outpacing our ethics.

Wallace B. Henley writes about his concerns in his book, Who Will Rule the Coming 'Gods'? The Looming Spiritual Crisis of Artificial Intelligence. He says he "suddenly became aware of how vulnerable humanity will be as the machines seem increasingly godlike in an age when people are rejecting beliefs in God as the Transcendent Being to

whom all are accountable and giving the contraptions of their own making an almost godlike power and position."

Here are a few biblical principles that should be applied to artificial intelligence. First, we begin with the reality that each human being is created in God's image (Genesis 1:26-27, Psalm 139:13-16, Isaiah 43:6-7, Jeremiah 1:5, Ephesians 4:24). We have been given dominion and stewardship over the creation (Genesis 1:28, Colossians 1:16) and should reject any form of technology that would usurp or subvert that stewardship responsibility.

Second, humans are created as moral agents. Computer technology can aid us in making moral decisions because of its powerful ability to process data. But we can never cede our moral responsibility to those same computers. God will hold us responsible for the moral or immoral decisions we make (Roman 2:6-8, Galatians 5:19-21, 2 Peter 1:5-8). We should never give computers that authority.

We should reject the vision of transhumanism that looks forward to the day in which man and machine become one in the singularity. We must reject the idea that this is the next step in human evolution. We should reject the worship of technology and reject the idea that AI will make us more human. And we should reject the false utopian vision of a world when machines are given coequal value to humans created in the image of God (Genesis 1:26-27).

Additional Resources

Kerby Anderson, *Christian Ethics in Plain Language*, Nashville, TN: Thomas Nelson, 2005, chapter twenty.

Jim Denison, "ChatGPT and Artificial Intelligence," March 28, 2023, https://www.denisonforum.org/current-events/chatgpt-artificial-intelligence-openai/

Bill Gates, "The Age of AI has Begun," March 21, 2023, https://www.gatesnotes. com/The-Age-of-AI-Has-Begun

Wallace Henley, Who Will Rule The Coming 'Gods'?: The Looming Spiritual Crisis Of Artificial Intelligence, Leadership Books, 2021.

John Stonestreet, "Should AI be Shut Down?", April 24, 2023, https:// breakpoint.org/should-ai-be-shutdown/

Eliezer Yudkowsky, "Pausing Al Developments Isn't Enough. We Need to Shut it All Down," *Time*, March 29, 2023.

