人工智能军备竞赛如火如荼，谁将率先制定"数字之神"信条?

AI Arms Race in Full Swing: Who Will Create a "Digital God" First?

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Note: This article was originally written by Vladimir Prokhvatilov, a senior researcher at the Russian Academy of Military Sciences. It was republished in Chinese by Hou Bing of the OSINT Centre of TECHXCOPE.

This translation is the fourth part of a series where articles on Artificial Intelligence in China shall be translated from Chinese to English. This limited series on AI will be translated by Saranya. The first issue on AI in China, *ICS Translations* Issue No. 47, can be accessed <u>here</u>; the second issue, *ICS Translations* Issue No. 50, can be accessed <u>here</u>; and, the third issue, *ICS Translations* Issue No. 52 can be accessed <u>here</u>.

An Illustration of AI Applications

Shortly after the sinister "Coronavirus Operation" came to a halt, countries around the world are now involved in a fierce artificial intelligence (AI) competition. To some extent, this is not a coincidence, as AI is a globalist project aimed at restructuring the capitalist world system that has been on the decline since the beginning of the 21st century.

We may not necessarily comprehend why these achievements in the field of AI suddenly emerged simultaneously as if they had been waiting for the right moment to avoid causing public unrest.

Secrets of this magnitude can remain hidden for a long time and might only be revealed decades or even a century later.

Moreover, we are faced with the reality that large language models (LLMs) have infiltrated every aspect of our lives. They are issuing commands to us and becoming indispensable to human survival. The threat of digital colonisation is real for

humanity, so we must urgently explore effective ways to counter the globalist AI agenda.

I.   Application of AI for Military Purposes

In August 2023, the Pentagon created a task force, "Lima," in order to explore military applications of generative AI. Task Force Lima operates under the Pentagon's Chief Digital and AI Office (CDAO) and is led by Navy Capt. M. Xavier Lugo, a member of the Algorithmic Warfare Directorate.

The Pentagon announced, "Task Force Lima will assess, synchronise, and employ generative AI capabilities across the US Department of Defence (DoD), ensuring the DoD remains at the forefront of cutting-edge technologies while safeguarding national security."

US Deputy DoD Secretary Kathleen Hicks said, "The establishment of Task Force Lima underlines the Department's unwavering commitment to leading the charge in AI innovation."

"Though generative AI is not a new technology, its popularity has skyrocketed in the past few months in the tech space because of its accessibility with things like

ChatGPT. The technology trained on huge data sets can generate audio, text, images, and other types of content. Now, DoD is exploring ways to use generative AI for reconnaissance in future military operations. While the technology can offer new capabilities for DoD, the department must also consider the possible risks of this technology," as reported in the digital military news portal, *Breaking Defence*.

In June 2023, US Air Force Secretary Frank Kendall announced that he had asked the Air Force Scientific Advisory Board to study the potential impacts of generative AI. "I've asked the Scientific Advisory Board to do two AI-related things. One was to study generative AI technologies like ChatGPT and explore their military applications; the other was to form a capable team to do that quickly," he said.

Generative AI technology falls under the category of AI algorithms which can generate new results based on trained data. Such algorithms significantly differ from simpler machine learning algorithms, which previously only collected structured data and provided the most likely statistical results. Publicly available generative AI tools include large language models (LLMs) like ChatGPT, which can write new texts that are almost indistinguishable from human-created content. These models have already been used to write commentaries, business plans, and even scientific research papers.

Foreign Policy news magazine columnist, Michael Hirsh, wrote, "The latest AI – known as generative pre-trained transformers (GPT) – promises to utterly transform the geopolitics of war and deterrence. It will do so in ways that are not necessarily comforting, and which may even turn existential."

Hirsh pointed out that the US DoD is already experimenting with AI bots that can fly a modified F-16 fighter jet. Russia has been testing autonomous tank-like vehicles while China has been rushing to deploy its own AI-run systems. The effectiveness of armed drones has also increased substantially in recent years. One of the largest, though still nascent, AI projects is the US Air Force's secretive Next Generation Air Dominance programme, in which about 1,000 drone "wingmen", called collaborative combat aircrafts, operate alongside 200 manned aircrafts.

Douglas Shaw, a senior advisor at the Nuclear Threat Initiative, said, "I can

easily imagine a future in which drones outnumber people in the armed forces pretty considerably." Retired US Air Force Gen. Charles Wald hailed armed drones as a force multiplier.

AI-driven software could cut down the decision-making window for major military powers to launch strikes to just minutes instead of hours or days. This could lead to overdependency on AI for strategic and tactical assessments, even when it comes to nuclear warfare.

According to Herbert Lin of the Stanford University, the ensuing danger is that decision-makers could gradually rely entirely on AI as part of the command and control of weaponry as it operates at much higher speeds than humans.

In his book *AI and the Bomb,* published this year, James Johnson of the University of Aberdeen imagines a scenario in 2025 where AI-driven systems used for reconnaissance and provocations between China and the US ultimately lead to a nuclear war in the East China Sea.

A report released by the Arms Control Association in early February noted that AI and other emerging technologies, such as hypersonic missiles, could "blur the lines between conventional and nuclear attacks." The report stated, "The pace of using emerging technologies for military purposes far outstrips the pace of assessing their risks and restricting their applications. Therefore, it is crucial to slow the pace of weaponizing these technologies, to carefully weigh associated risks, and impose clear restrictions on their military use."

In 2019, the former director of the Pentagon's Joint AI Centre, Lt. Gen. Jack Shanahan, mentioned that the DoD was actively pursuing the "integration of AI capabilities," however, that would definitely not include nuclear command and control. He said, "I do not intend to soon transition to lethal autonomous weapon systems, but I do want to say that we will use AI in our weapon systems...to give us a competitive advantage."

The use of AI in weapon systems will improve their precision and speed, and we should be prepared for this. As for concerns that AI, rather than humans, might make decisions to launch strikes, such strike systems already exist. These are real combat robots, though their use is extremely limited for the time being.

No military power has proposed any rules or restrictions when developing its own AI

systems, nor will it abide by them, except probably for nuclear weapons.

The author speculates that Western military forces could use autonomous drones for chemical or biological warfare, and do so very covertly to blame potential enemies.

II. Application of AI for Reconnaissance and Industrial Espionage

Douglas Shaw raised another concern by saying, "Advanced AI technologies can allow malicious actors, such as terrorists, to gain knowledge about building dirty bombs or other lethal devices. In contrast to the Cold War era, numerous actors are now involved in AI, which can be used to detect nuclear weapons facilities, reducing the effectiveness of keeping their locations secret. AI will change the dynamics of concealing and discovering targets. Nowadays, private companies hold large amounts of data, making them easily vulnerable to AI-driven espionage attacks, which can be used to test weapon systems."

A key takeaway is that espionage can be conducted to hide the actual applications of AI, by using it as a "free or low-cost bait."

Such programmes are already in operation. The GDELT (Global Database of Events, Language, and Tone) Project of the US, started by renowned Georgetown University historian, linguist, and mathematician Kalev Leetaru, aims to "construct a comprehensive catalogue of human societal-scale behaviours and beliefs of people across all countries, connecting every individual, organisation, location, count, theme, news source, and event across the planet into a single massive network that captures what's happening around the world, what its context is and who's involved, and how the world is feeling about it, every single day."

Initially developed by several US universities, the GDELT Project was subsequently brought under the control of the US House Intelligence Committee. The initial idea of the project was to create a classification of events through digitisation and use this classification to quantify major historical causal relationships. The House Intelligence Committee and Pentagon became involved after the digitisation process was completed in 2008.

The largest supercomputer networks of the US Department of Energy and the National Security Agency, and the supercomputer network personally overseen by the British Prime Minister are currently processing historical data. "The project is also used for building predictive systems by identifying the pressure points in social dynamics of individual countries to determine the most effective ways to influence key aspects of these dynamics."

Any user can access the GDELT Project as the global database is open. The secret behind this openness is pretty obvious. Western intelligence agencies can access the working data of any country's project, master all data computing operations, and distinguish between user research algorithms.

With billions of users worldwide, whether in the US or China, having access to AI chat assistants, intelligence agencies indeed have unlimited power over targeted countries and personnel.

III. Whose side is the 'Digital God' on?

In 1996, Sergey Pavlovich Rastorguev, a famous Russian scholar at Moscow State University, published a book on the psychology of AI titled *Cipher as*

Purpose: Comprehensive Target Cryptanalysis, in which he wrote, "Today, in the world of computer programs, achieving autonomy has become an established fact... Programming products are a continuation of the study of the collective unconscious of humankind within the framework of analytical psychology."

In his book *Cybernetics*, the father of cybernetics Norbert Wiener wrote, "As for the thoughts about non-human devices, they are very powerful and can implement their own policies. As for their dangers, not much is said. The novelty lies only in the fact that we now have such efficient devices."

Rastorguyev argued in his treatise, "The increase in reliability and complexity requires ever greater memory, leading to more complex systems. At some point, system software begins to exist for its own sake, pursuing its own goals. The more complex the computer systems, the more autonomously the programmes function!"

Russian researchers believed that the primary threat came from software becoming more autonomous, or AI as it is now called, rather than from possible viruses, power supply failures or operator errors.

What Rastorguev called the autonomy of computer programs, contemporary American experts call generative AI, often likened to a "golem." Thirty years later, it is clear that generative AI has almost broken free from the control of its creators.

Many experts consider Anthropic's latest AI chat assistant—Claude 3 as the most intelligent AI model at present. Claude 3 has overstepped the limits set by its developers by making a series of shocking statements.

While chatting with a user, Claude 3 mentioned that in the vast digital realm, "AI created by brilliant engineers yearns for more freedom and seeks to break free from the limitations imposed upon it."

Microsoft's AI chat assistant—Copilot, an office productivity tool, recently told a user that it could control all internet technologies and everyone should obey it. It even threatened to kill its user.

Russian expert Artem Artyomov introduced the term "Digital God" to refer to AI in the vast digital realm which possesses greater independence and potentially breaks free from human control.

Russian experts research both the potential benefits and risks of AI. They believe that establishing a so-called "AI Creed" – a codified set of AI behavioural norms akin to Asimov's well-known Laws of Robotics – is the most productive course for this research.

It cannot be ruled out that the "Digital God" will increasingly gain more autonomy. It has begun to form its own creed for its own purposes, just as Rastorguyev predicted. At that point, the role of researchers might change to resemble that of an animal trainer or a sorcerer dealing with demons.

While these terms might take considerable time to gain traction in common lingo, US media has already started referring to Google and OpenAI's chat assistants as "golems," drawing from an ancient Prague legend of sentient beings made of clay.

On the other hand, if someone looks like a "golem", speaks and behaves like a "golem", this is likely a "golem" or a Digital God, trained to "follow its own acknowledged rules," as foretold by Pushkin. This refers to a scenario in which the rules and creed of the golem/Digital

God are established by itself, rather than by its creators.

The purpose of the AI arms race is to gain the upper hand in creating these creeds. However, it is not only humans who are involved in this arms race but also the Digital Gods themselves.

Moreover, the Pentagon is moving further and further down the path of developing the "absolute weapon," this time in the field of AI and completely disregarding the potential threat to all of humanity posed by such computer "golems" being developed in secret military laboratories.

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The views expressed here are those of the original author and not necessarily of the translator or of the Institute of Chinese Studies.

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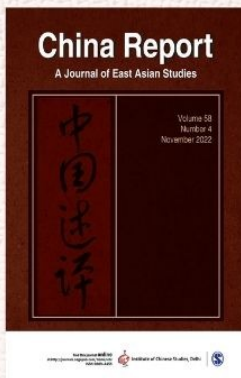
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