Artificial intelligence: America's leadership challenged

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"*The one who will become the leader in this area will rule the world*", said Vladimir Poutine, on 1 September 2017, regarding artificial intelligence (AI). The sentence has caused a stir in the United States, where American observe with concern the spectacular development of AI, not only in Russia, but especially in China.

On Twitter, Elon Musk, CEO of Space-X, was quick to react to the russian sentence: "*China, Russia, soon all countries w strong computer science. Competition for AI superiority at national level most likely cause of WW3 imo.*" The US billionaire has early expressed his concerns about the military use of AI. In 2015, he founded OpenAI, a research centre on AI, in a way that is "*beneficial on humanity*".

However, a large share of AI-related investments around the world is for military purposes. In July 2017, the weapons manufacturer Kalashnikov announced the development of Soratnik, an autonomous weapon using a neural network capable of detecting a target and acting without human control, by "choosing" to eliminate the aforementioned target or not. This small tank would be likely to accommodate a complete arsenal: machine guns, cannon, anti-aircraft missiles... Since 2015, the Russians in Syria already use an autonomous machine: it is the

Platform-M, an autonomous robot of reconnaissance and demining.

American concerns

The exponential development of military AI is of particular concern to the US government, which fears that in the long term the hegemony of its armed forces will be threatened. On November 1, 2017, Eric Schmidt, Executive Chairman of Alphabet (parent company of Google) and Chairman of the DoD Innovation advisory board, highlighted the risk for the US to lose first place in the field of AI.

According to the former CEO of Google, "artificial intelligence is the new frontier"[1], in other words, the new space on wich the United States must impose their supremacy. Taking over the theory of the American historian Frederick Jackson Turner (1893)[2], which made the "border" a central element of the American identity at the end of West conquest, Schmidt implies that if the United States does not become the master of this new field of conquest, American identity and primacy will be threatened.

Bureaucracy

Eric Schmidt urges therefore the Department of defense to invest heavily in this field of research to catch up. And for goof reason, because US military executives attaché great importance to human surveillance, and they have neglect research in AI to a great extent. In terms of artificial intelligence, it takes five, ten or even thirty years to go from the project launch to the moment when it is actually completed and operational, Schmidt says.

In all likelihood, the Department of defense cannot set up such a research and development program alone, let alone within a reasonable deadline. Therefore, the best solution for the government would be to rely on innovative firms in the private sector. Another difficulty arises then: in times of peace or, at least, of limited threat, nothing spurs the ministerial bureaucracy to adapt quickly and to modify its methods of work: "*The department leaders understand this need*, Schmidt said. *The problem is everyone can understand something. But they cannot collectively act. You have to come up with ways for them to come up with the resources and so forth. If were in a huge war with major adversary, I'm sure the rules would be different. Right now, the planning procedures take too long.*"

The rise of China

Meanwhile, the chinese lead a colossal program of development of AI[3] in the commercial and military with, as a figurehead, the chinese digital giant, Baidu. Their goal is to catch up to the United States by 2020, in order to exceed them in 2025 and finally impose China as the world leader in the AI industry, by 2030. Actually they are on track and, in addition, they benefit from significant technology transfers from the United States. In January 2017, former Microsoft executive vice rresident Qi Lu was appointed Baidus's Chief Operating Officer in charge of developing the AI program.

If the United States wants to maintain leadership and its place as the world's leading military

power, its efforts will have to focus on AI research. While there is a proliferation of new spaces with strong security and strategic issues, hostile to humans (outer space, underwater environments, cyberspace, etc.), artificial intelligence is becoming an indispensable military instrument.

Besides, in the face of chinese technological advances, the ability of the United States to remain a political and axiological model is questioned: "Weren't we the ones who were going to exploit all this technology for the betterment of American exceptionalism?", Eric Schmidt asks Defense department officials, further underlining that the connection between the Americans' sense of "moral and political superiority" and their technological advance is about to be brocken.

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[1] https://www.defense.gov/News/Article/Article/1360302/america-in-danger-of-losing-lead-in-ai-innovation-board-chair-says/

[2] Jean-Michel Durafour, « "Cette frontière qui battait sans cesse en retraite" : Turner et le cas américain », *Cités*, n°31, 2007, p. 47-58.

[3] Edward Tse, « Inside China's quest to become the global leader in AI », *Washington Post*, 19.10. 2017. URL :

Website link :