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THE COGNITIVE REVOLUTION: ARTIFICIAL INTELLIGENCE AS A FACTOR OF THE NOOTRANSITION

Abstract: We consider artificial intelligence as one of the most powerful technological factors of the cognitive-industrial revolution, which accelerates the increase in the knowledge intensity of production while concurrently intensifying the question regarding the goals of the societal application of this new technological power. In our studies, we note that AI, as an element of the technosphere, does not possess independent historical agency; the direction of its application is determined by social relations, the nature of property ownership, and value priorities. The distinction between algorithmic rationality and noorationality allows us to identify a civilizational crossroads: digital power is capable of leading both to technocratic dominance, cognitive inequality, and informational alienation, and to the expansion of creative space, the free exchange of knowledge, and solidarity-based creation. We link the resolution of these contradictions to the resultant force of the “quadriga of noonomy” – scientific and technological progress, the diffusion of property ownership, the socialization of society, and solidarism – whose joint action is aimed at subordinating technological power to human development. The movement toward noonomy presupposes conscious strategizing for the development of AI in the name of peace, the preservation of human control, and the limitation of the autonomization of military systems. The cognitive-industrial revolution becomes a factor of the nootransition only when knowledge turns into a public good, liberated time transforms into a space for creative self-realization, and the human being retains the status of the highest value and the subject of societal development.

Keywords: noonomy, nootransition, artificial intelligence, cognitive-industrial revolution, NIS.2, noorationality, quadriga of noonomy, solidarism, human dignity.

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认知革命——人工智能是智慧型转型的影响因素

摘要: 我们认为, 人工智能是认知和工业革命中最强大的技术因素之一, 它既加速了生产知识密集度的提升, 同时也使新技术力量社会应用的目的问题更加尖锐。我们在研究中发现, 人工智能作为技术圈的组成部分, 并不具备独立的历史主体性, 也就是说其应用方向由社会关系、所有制性质

以及价值取向所决定。区分算法合理性与智慧型合理性,有助于揭示文明发展的岔路口:数字力量既可能导致技术统治、认知不平等和信息异化,也可能拓展创造空间,促进知识自由交流和团结协作。我们认为,克服这些矛盾的关键在于“智慧型经济四驾马车”的合力,这四驾马车是科学技术进步、所有权扩散、社会化和团结主义,它们协同行动的目标是将技术力量服务于人类发展。向智慧型经济转型,意味着为了维护和平、保持人类控制权并限制军事系统的自主化,有意识地制定人工智能发展战略。只有当知识成为公共利益,被释放出来的时间转变为自我实现的创造性空间,而人类仍保持其作为最高价值和社会发展主体的地位时,认知和工业革命才会成为智慧型过度的推动因素。

关键词: 智慧型经济、智慧型转型、人工智能、认知工业革命、NIS.2、智慧型合理性、智慧型经济四驾马车、团结主义、人格。

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I. Cognitive-Industrial Revolution and Human

We have entered a period when the “acceleration of acceleration” of scientific and technological progress is changing not just individual tools, but the very mode of social reproduction [Bodrunov, 2016]. Artificial intelligence is entering knowledge-intensive material production, becoming part of education and governance, and transforming the info-cognitive space.

This is a *systemic* phenomenon. Its scale is determined not by the number of operations transferred to the machine, but by the depth of changes in the human condition, the structure of needs, and the nature of social relations.

So (and this is crucial), the technological question here immediately takes on an **anthropological dimension**. Who determines the course of development? Does the individual retain the right to judgment? Does the technosphere serve the rise of humans or subordinate them to its own logic? The answer requires combining scientific analysis with moral and anthropological assessment.

Pope Francis, in his message “**Artificial Intelligence and Peace**”, expressed the key criterion with utmost clarity: “*Artificial intelligence ought to serve our best human potential and our highest aspirations, not compete with them*” [Francis, 2024a].

And we fully agree, since technology acquires social meaning only when its power is subordinated to human development and the unleashing of human creative capacities. AI is not an independent actor in historical development. It is an element of the technosphere and an instrument of scientific and technological progress, while the subject of the **nootransition** remains humans – no longer *homo economicus*, focused on profit, but a *cultured, creative human being* capable of creating knowledge and meaning [Bodrunov, 2018].

Nootransition refers to the historical movement *from economic society to noonomy*, where scientific and technological progress serves to liberate people from routine labor, develop creativity, and satisfy reasonable needs [Bodrunov, 2020; Bodrunov, 2025a].

An algorithm itself does not generate goals; it enshrines the interests and decisions of those who possess the data and determine the conditions for its application. Whoever owns the data largely directs the outcome; whoever determines the measure of effectiveness shapes the social

impact. This means that discussions of AI inevitably turn into conversations about power, ownership, and, most importantly, responsibility.

Those who *control technological power* gain the ability to direct its application and determine the distribution of the benefits and risks it creates.

“Artificial intelligence represents a true **cognitive-industrial revolution**” [Francis, 2024b]. Its essence lies in the accelerated implementation of knowledge into technology and the growth of the “knowledge” component of a product. Material production retains its basic significance, but acquires a new quality: the product becomes highly **knowledge-intensive**, production becomes **knowledge-consumptive**, and innovation becomes almost continuous. This is how the technological basis for what we call the *New Industrial Society of the Second Generation – NIS.2* – is being established [Bodrunov, 2016].

Machines increasingly perform reproductive operations, while human activity gradually shifts toward task setting, oversight, and creative exploration. Hence, the possibilities of *reducing mechanized labor* and freeing up life time for **non-mechanizable activities** emerge. This is a movement from mere productivity growth to the return of “*human to human*,” to the expansion of the space of science, culture, and creativity [Bodrunov, 2019].

The prospect of a self-acting production system is no longer an abstract hypothesis. The question is who will define its external regulatory framework, and on what principles. From the perspective of the theory of noonomy, this framework is defined by *society*, and *reasonable needs of the individual* serve as the measure of decisions.

But technology merely creates the *background*, while the course of movement is determined by social choice. Cognitive-industrial revolution creates the material and technological preconditions for the nootransition, but does not guarantee it.

Same technologies can either lead to digital technocracy or accelerate the construction of a **noosociety**, depending on the social relations, goals, and values of their application. In the former case, AI accelerates the concentration of power and enhances information alienation. In the second, it serves as a tool for the free exchange of knowledge and collaborative creativity. This is a systemic fork, also known as a “*bifurcation point*” [Bodrunov, 2025a].

Technological liberation acquires human meaning only when the gain in time is transformed into an opportunity for personal development, and higher productivity into a *common good*. Otherwise, automation vacates the workplace, but does not liberate the human.

II. Civilizational Fork: Algorithmic Rationality and Noorationality

Algorithmic rationality quickly finds a tool within a given model. **Noorationality** poses a more complex question: what human end does this tool serve and whether it is consistent with individual dignity, cultural values, and the common good. Therefore, we share the idea that “*not everything can be predicted, not everything can be calculated*” [Francis, 2024a].

The limitations of the *technocratic model* are revealed at the point when the computable is declared reasonable, and efficiency is transformed into a universal measure. **Noonomy** proposes a different type of rationality – a shift from profit and consumption maximization to reasonable formation and satisfaction of needs [Bodrunov, 2018].

This refers to needs that spiritualize humans and expand their creative capacity – **nooneeds**. Their criterial framework is created by culture. *Culture* is not a superficial adornment of an economic system, but its future imperative, its **noovalue core**. An algorithm can suggest the optimal route, but society must determine the meaning of that path.

If the current economic logic persists, digital power is accumulating faster than society can develop forms of oversight. New AI monopolies and new *asymmetries* are emerging – epistemic, economic, and political [Leo XIV, 2026]. This asymmetry divides the world into those who shape the architecture of knowledge and those who are left to make decisions that have already been constructed; simultaneously, a new layer of digital infrastructure owners is emerging, appropriating *technological and cognitive rents*.

As a result, a *cognitive barrier* arises, followed by dependence in education, work, and social choice. Technological wealth begins to coexist with cultural and moral poverty. We risk becoming “*rich in technology and poor in humanity*” [Francis, 2024c]. And — let us emphasize — the problem lies not in computing power per se. The source of the risk lies in the subordination of this power to the logic of accumulation, control, and superiority.

Overcoming this gap is linked to the resultant force of the “*quadriga of noonomy*,” which we define as scientific and technological progress, the diffusion of ownership, the socialization of society, and solidarism [Bodrunov, 2021]. *Scientific and technological progress* provides impetus, but its socio-humanitarian orientation arises through the *diffusion of ownership, socialization, and solidarism*. Diffusion here means that access to data and computational models is expanding, and research results are returned to society. Data is created through social labor and therefore requires a common or shared good treatment. Socialization brings innovation back into the realm of human development. Solidarism shifts cognitive interaction from monopolistic competition to cooperation.

This is how the *crystallization of noonomy* begins. Open *cognitive ecosystems* are emerging, where knowledge multiplies through exchange, and creative output becomes the basis for collaborative development. This is no longer a “knowledge economy” that trades in intellectual products. The law of *rising needs* acquires a new civilizational content here: the growth of knowledge is intended to expand the space of human freedom, not to multiply simulacra that replace development with consumption. This is a movement toward a *noospace* where knowledge becomes a common cognitive asset [Bodrunov, 2025b].

Along with technology, labor and its content are changing. Automation can relieve people of arduous and repetitive tasks, but free time has yet to be transformed into a space for self-actualization. To achieve this, education must be accessible throughout life, and the results of increased productivity must contribute to the development of society.

Education in the context of nootransition combines technical knowledge with humanities understanding and develops the ability to exercise independent judgment. It overcomes information alienation and prepares people for participation in cognitive ecosystems. This leads to an increase in human agency, rather than the adaptation of the individual to the pace of the machine. The human is the highest value and the subject (actor) of the nootransition. AI is designed to support non-machine-based activities where humans explore, create, and transmit culture. Information may be abundant, but wisdom is born where knowledge is combined with meaning, responsibility, and trust [Leo XIV, 2025].

III. AI for Peace: Strategizing the Nootransition

Society’s move toward noonomy cannot emerge as a spontaneous byproduct of the technology market. It requires conscious strategizing. This requires a scientifically grounded alignment of technological development with the changing nature of education and labor, and sub-

sequently, social institutions. A “proactive commitment to protect human dignity” is needed [Francis, 2024d], and this protection must be built into the system’s architecture from the design stage.

We evaluate technology not only by speed and commercial impact. More importantly, does it expand human freedom; does it make society more equal; does it strengthen trust and peace? Hence the need for proactive management capable of foreseeing long-term consequences and guiding scientific and technological progress along a humanistic trajectory. Strategizing preserves the space for initiative but changes the criteria for development: socially beneficial results take precedence over short-term gains [Bodrunov, 2020; Bodrunov, 2025b].

Pope Leo XIV, in his encyclical letter **Magnifica Humanitas**, introduces a precise concept: the disarmament of AI: “*To disarm does not mean rejecting technology, but preventing it from dominating humanity*” [Leo XIV, 2026]. We agree with this approach as well. **Nootransition** is a humanistic, not an anti-technological, project. Disarmament means removing AI from the logic of military, economic, and cognitive superiority. It means limiting the power of force in digital form and returning technology to the realm of public debate. AI should be used where human potential grows: to help heal and research, teach, preserve our common home, and support dialogue among cultures. As such, it acts as a technology of trust. With the exclusive appropriation of data and models, it, on the contrary, becomes an infrastructure for dictatorship.

The most severe test of this principle is the military sector, since “*no algorithm can make war morally acceptable*” [Leo XIV, 2026]. A machine can recognize an object and calculate an action, but moral judgment is born of conscience and personal responsibility; its foundation is the *recognition of another as a person*.

A decision that entails death or other irreversible consequences must remain under effective human oversight. And — importantly — responsibility begins long before the command to use the system is issued. It emerges at the time the task is set, continues during model training, and is embedded in the political decision on the permissibility of its use.

AI for peace requires a new culture of international cooperation. Law must curb the autonomization of weapons and the race for computational superiority. Science must strengthen open forms of exchange, and states must reduce cognitive dependence by developing their own scientific and educational infrastructure. But peace is broader than the absence of hostilities; it begins where labor retains dignity, knowledge is open, and nations participate in shaping the technological future together, not separately.

This is why solidarism takes on practical meaning. It transforms interdependence into conscious collaboration and links technological leadership with contributions to human development. It represents a shift from a culture of power to a culture of shared creation, from digital competition at any cost to responsibility for a shared future.

Our dialogue, “**Artificial Intelligence for Peace**,” could become a platform for such a synthesis. It could combine technological competence with moral and anthropological responsibility, and political economic analysis with strategizing the nootransition.

This is no longer a question of whether AI will change society. The question is what kind of society will be guided by AI. **Noointelligence** is not maximum computing power; it is an intelligence capable of limiting its own technological power for the sake of preserving humanity, society, and

the world. It is precisely this kind of intelligence that transforms the cognitive-industrial revolution from a factor of dominance into a factor of development.

The future of AI is determined by the quality of the goals we give it. The future of the noosociety is determined by our ability to make knowledge a common good, creativity a norm of human life, and solidarism a principle of historical action.

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