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## UNITY OF KNOWLEDGE, EXPANSION OF RATIONALITY AND "DIGITAL COGNITIVE EXPANSION": AN EPISTEMOLOGICAL APPROACH

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*Given the widespread use of digitalization across a variety of societal sectors, the question of the unity and integrity of scientific knowledge is becoming more important. The maintenance of knowledge's unity develops into a serious epistemological issue. This question is examined in the paper from a philosophical-scientific standpoint against the backdrop of the use of new digital technologies. It is shown that contemporary epistemological paradigms are directly tied to the creation and functionalization of knowledge. Epistemology of virtue holds a unique position among them. In the framework of this epistemology, the study of concepts such as rational acceptability, rational expansion, and digital cognitive expansion in interaction is relevant. The article explores how knowledge is generated and utilized in the context of contemporary digitalization, highlighting it as a multifaceted and diverse procedure.*

**Scientific Purpose.** *Attaining a philosophical-scientific understanding within the cognitive-social-cultural environment, where knowledge generation is intricately intertwined, by examining it through the perspective of the epistemological phenomenon called "digital cognitive expansion."*

**Methodology.** *Interdisciplinary methodology is applied in the article. Methodological principles of intersubjectivity, synergetic integration, and cognitive expansion are applied specifically for this.*

**Method.** *Methods of comparative analysis and synergistic synthesis are used.*

**Scientific Innovation.** *The formation of scientific knowledge was investigated in the context of the concept of "digital cognitive expansion" within the framework of virtue epistemology.*

**Keywords:** *technoscience, postacademic science, finalization of science, rational acceptability, expanded intelligence, episteme of cosmotechnics, epistemology of virtue, intersubjectivity, cognitive ecology.*

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### INTRODUCTION

Undoubtedly, within philosophical-scientific circles, the organization of scientific endeavors in modern science, the process of knowledge generation, the dynamics of knowledge-information relationships, and the philosophical comprehension of the connections between scientific and non-scientific knowledge are highly relevant topics. These issues are extensively explored as a "complex cognitive and cultural matter" as a whole. Additionally, there is a widespread consensus about the crucial role played by concepts such as science, knowledge, information, and digitality in shaping contemporary society. In concrete terms, the prevailing belief is that modern society is predominantly an information and knowledge-based society. In other words, information and knowledge are important to the existence, operation, and development of all aspects of society. They serve as a driving, determining sociocultural and intellectual force. As a result of this process, the idea of "technoscience" arose, which denotes the fusion of emerging technologies and scientific subjects. This is a phenomenon that fundamentally alters how an individual and



society as a whole view the universe and their place in it. For this reason, concepts like "postacademic science" and "finalization of science," which were previously unheard of, are utilized in philosophical-scientific literature [2, p. 33]. The necessity of philosophical understanding is examined in the context of the coexistence of human-humanity-technoscience interactions in a number of studies as a result of the basic penetration of technoscience into society [1, p. 211].

The idea that new technologies play a crucial role on a cosmic scale is advanced in English-language literature, and the modern world is genuinely portrayed as a scientific-technical reality. In this context, it is highlighted that accepting new technologies as a "function of human intelligence" is necessary. This entails, broadly speaking, considering the digital universe as a whole, including the cosmic scale, as an integral part of reality. In light of this, it's intriguing that Y. Hui proposed the concept of a "cosmotronics episteme" [3]. These brief examples clearly illustrate a fundamental transformation occurring in scientific comprehension during the modern era. The indications of this transformation are evident in the way knowledge is acquired, knowledge-information relationships are redefined, interdisciplinary connections take on new meanings, and how cognitive-social-cultural interactions are renewed, among other factors. This suggests that modern scientific understanding exhibits a hierarchical, complex, temporal, and non-linear nature. In this context, let's emphasize that "...The fact that scientific understanding has a hierarchical and non-linear nature is caused by its temporality. The non-linear aspect ensures that different domains of scientific cognition maintain their autonomy. Simultaneously, this characteristic imparts a unique content to their synthesis within a shared temporal dimension [4, p. 193].

Proceeding from this thesis, one can focus on the discussions conducted by philosophers in aspects such as the acquisition of scientific knowledge, the essence of the relationship between them, and the creation of conceptual apparatus in various scientific directions. For this, it is possible to use an interdisciplinary methodological approach. In this article, we address the methodological principles of intersubjectivity, nonlinearity, system complexity, and synergistic synthesis. Comparative analysis, integration of diversity and pluralism are used as methods. Let us emphasize that this article also takes into account methodological pluralism in the sense of P. Feyerabend. Thus, we prefer to be open to different methodological approaches rather than to a potentially limited number of scientific or research methods [5].

## MAIN PART

As we highlighted above, the question of the unity and integrity of knowledge is more frequently discussed in the framework of the complexity paradigm in contemporary philosophical and scientific literature. Philosophical-scientific understanding of the issues of the unity of knowledge with complexity at the level of mutual relations creates an opportunity to analyze a number of theoretical and methodological issues in the epistemological aspect as a whole. This topic is examined in works in the context of a philosophical investigation of the complexity-related problem of the unity and integrity of knowledge in general. One of the main issue lies in comprehending the philosophical aspects of how concrete knowledge is created and how it interacts with other subjects. Individuals or entities responsible for generating knowledge employ it in diverse activities and forms of communication. Subjects who produce knowledge incorporate it into a variety of activities and communications. The reflexive (subject's self-awareness, empathy context) aspect of that process is relevant [6, p. 60]. In this context, researchers examine the unity and integrity of knowledge, closely linked to the problem of the unity between natural sciences and humanities, especially concerning the aspect of growing complexity. It is fascinating to examine the emergence of the interdisciplinary complexity paradigm based on the interactions of network and system approaches within that framework [7, p. 50-61]. According to V. I. Arshinov and V. G. Budanov, system and network methods each have a positive and constructive potential for comprehending the integration of different natures in contemporary information-network societies, including the management of contemporary high technology



convergence processes. The interaction of these two approaches increases their cognitive-project potential, and by including a number of additional methodological principles, it is possible to achieve a philosophical-scientific understanding of the synthesis of natural sciences and humanities at the modern stage [7, p. 60-61].

The acquisition of information, its operation, the development of scientific theories, and the fact that these issues have a unique content in digital environments can all be philosophically and scientifically explored in the emphasized context. Currently, research is being conducted in this direction, and a number of issues of a philosophical, epistemological and methodological nature appear in that framework. Among them, the philosophical comprehension of knowledge, scientific developments, digital transformation, scientific veracity, and other current issues hold a distinct significance concerning the transformation of scientific rationality.

The point is that the process of renewal (including the evolution) of the philosophy of scientific rationality should be viewed in close connection with its creators (people). Simultaneously, those responsible for shaping, transforming, applying, and presenting knowledge to potential users need to be examined from a comprehensive standpoint. This consideration holds great relevance in terms of ensuring unity, synthesis, and integrity of knowledge in the context of the digital era.

The investigation of these three philosophical factors is particularly interesting to philosophers. The diversity of subjects' reflexive perceptions of knowledge in relation to the unity of knowledge is first examined. The second is the "incorporation" of newly learned information into other subject-related activities (such as communicative, reflective, socio-practical, and theoretical ones). The third is a philosophical-scientific investigation of reflexivity in polysubject systems in relation to knowledge organization management [7, p. 60].

The research conclusions obtained individually and at the intersection of their common theoretical-methodological and epistemological aspects hold significant importance in the ongoing discussions. Within the scientific goals of this article, let's try to conduct a comparative analysis of several of them. It is worth highlighting that the directions we have mentioned hold a prominent position in international philosophical-scientific congresses focused on system research and cybernetics [8]. During the WOSC congress in Moscow in 2020, presentations on topics like "Technology and humanity: joint development of hybrid reality" and "Creating new areas of knowledge in the transdisciplinarity of system sciences and cybernetics" were delivered [9]. Overall, in contemporary philosophical-scientific understanding, the prevailing notion is that humanity has formed a "unified and whole reality" through technology, and this process can be adequately understood through new fields of science arising from transdisciplinarity within interdisciplinary research domains. Against this background, the discussion about the development of scientific rationality and the change of ideas about reflexive activity in digital conditions is becoming more and more intense.

Thus, knowledge in the setting of digitality is often explored in discussions via the lens of the interconnected ties between the ideas of truth and rationality. At this time, the philosophical reflection is on the acquisition of knowledge, the integration of various knowledge, the emergence of new interdisciplinary scientific directions, and the content of all of these processes in the context of digital culture. The topic of "rational acceptability" has been included by researchers in the research context mentioned. This idea is widely used in neopragmatism. However, its philosophical-scientific framework is relevant to modern philosophical thought in general. It is particularly significant in the philosophical-scientific reflection on scientific cognition. Hilary Patnam, one of those who widely use this concept, believes that it is necessary to justify the acceptability of certain knowledge and certain truth. At this time, it is possible to justify calling "receptivity" rational, because "in the scientist's mind, not only the issue of justification, but also the choice becomes relevant" [10, p. 84]. Based on the aforementioned logic, H. Patnem provides the following explanation of "rational acceptability": "Scientific truth is one of the types of ideal alignment of our beliefs with



each other and the knowledge obtained from experience." In this case, the "degree of adaptation" is determined by the "degree of representation in our belief system" of the experimental data. That is, it is not about adapting to reality that exists independently of consciousness [11, p. 70]. Understanding the justifications for the subject's selection of one theory over another and, consequently, the type of knowledge, is made possible by acceptability. In other words, choice and axiological features are a necessary part of knowledge in the present era. The findings of H. Patnam about the conceptual relationship between scientific truth and rationality are intriguing from this standpoint. He sees a close relationship between logic and truth. It also implies that their meanings and contents are different at the same time. Any claim may be accepted logically for a while, but it may not actually be "true". This phenomena is what H. Patnem calls "realistic intuition" [11, p. 10]. From this perspective, philosophers arrive at specific conclusions regarding knowledge and scientific theories. It suggests that no scientific discipline can assert itself as an exact representation of reality. Instead, rational plausibility becomes the governing principle in determining the "value" aspect when favoring any theoretical model. In this sense, rational acceptability serves as an epistemological "map" that establishes connections between all conceptual frameworks and a particular "world" [10, p. 87]. Let's underline that Imre Lakatos' concept appears intriguing and pertinent within the context of this logic. In the 1970s, a Hungarian scientist who later became one of the 20th century's most renowned experts on scientific technique stated: "I decided to look for the best methodology capable of a more successful rational reconstruction of science" [12, p. 506]. The pursuit of "the truest knowledge" by philosophers and methodologists in the twenty-first century has an intriguing impact when viewed through the lens of the standard of rational acceptability. It can be said that this search will be constant and the possibility of a definitive final result is seriously doubtful. In the digital environment, this process is gaining importance and content. It can be seen as its signs of cosmotechnicization and imagining scientific knowledge as a "post-truth search" [13]. Given this context, it is not unexpected that some scientists refer to contemporary research as "postacademic science" (also known as "post-normal science"). In other words, current science is different from earlier sciences in terms of its structure, function, cognitive techniques, logical qualities, and research approach. There are philosophers who disagree with this view, however, at the same time. Other ideas that align with rational acceptability are also included in the discussions. For instance, N.D.Astashova and E.B.Maslanov propose that the rational foundations of creative consciousness in science hold philosophical relevance at the intersection of multiple alternative approaches. Understanding the concept of rationality plays a guiding role in this context. According to one approach, rationality is "associated with the particular way of thinking of the epoch". It shapes general notions of understanding the world and various "theoretical scientific strategies are formed". In this sense, rationality "determines the features of the scientist's creative thinking". The second approach heavily relies on logic to describe the world. Researchers utilizing this perspective believe they can eventually achieve a comprehensive problem description. It can be called that the consciousness of the researcher "casts a rational construct like a net on the uncertainty". Finally, according to the third position, preference is given to "giving dynamic, flexible grades to scientific results". Philosophers value this as a meaning that has a rational meaning and is contained within certain cultural conditions of reality. According to that approach, human intelligence always "strives to exceed the limit of what is possible" [14, p. 34].

Certainly, addressing the issue of uniformity, unity, and synthesis of knowledge within such a complex and multifaceted cognitive landscape is a non-trivial endeavor. In response to this challenge, efforts have been made to establish a theoretical and methodological foundation for dealing with these complexities. As discussed earlier, in the light of the principle of "rational acceptability", the relevance of the issue of "expansion of rationality", which has a wider meaning, is very clear in the digital culture. Rational acceptability is the epistemological and methodological basis of rational extension. In more concrete terms, rational acceptability establishes the methodological and epistemological foundation for selecting the rationality that is deemed to be superior to alternative rationalities. However, the philosophical-scientific reflection of the expansion of rationality is not limited to this. It is



important to define the philosophical and scientific significance of the development of reason in the area of the organic integration of new digital technologies in cognition.

In this aspect, two points have a special place in the discussions. The first point is related to the approach to the expansion of rationality in the context of the factor of digitality in the aspect of uniformity, integrity and unity of knowledge. For this, the unity, uniformity and integrity of knowledge is considered in self-developing reflexive-active environments. In order to provide it, it is suggested that it is realized through ontologies. These ontologies consist of accompanying, supporting, developing, constructing, and applying types. A system of principles is added to them. And socio-humanitarian technologies are selected for both. In a broader philosophical context, it is suggested to address the unity of knowledge by synthesizing ontological, methodological, and technological (social practical) aspects in the context of modern digitalization. Within this approach, the analysis of different types of reflexive activity, understanding the complexity of reflexive activity, and clarifying the mechanisms of managing complexity emerge as pressing matters [7, p.67].

The acceptability of rationality and the expansion of rationality, which we emphasize under this general philosophical "theoretical-methodological umbrella", have an interesting cognitive phenomenon effect. Philosophers are currently delving into various aspects within this context. As mentioned by S.Y.Shevchenko, the topic of cognition, expanding through the utilization of digital technologies, is actively being discussed within the epistemological and social study of science and technology [15, p. 210]. These studies investigate the epistemic consequences arising from the application of different digital technologies. It is concerned, among other things, with "the epistemological study of memory-corrupting search engines that can favor false information." At this time, there are ample opportunities for theoretical comparisons between the automatic acquisition of knowledge and its epistemological results, in which one can talk about the expansion of intelligence [16, p. 1945-1963]. Researchers link the development of intelligence to social phenomena like the formation of "epistemological bubbles" on social media as an example of how it applies to the social environment [17, p. 61-73].

Discussions make it clear that such a method creates an intriguing philosophical conundrum. It is a matter of the aware subject accepting accountability for his cognitive processes based on his views after being "completed with digital technologies". So, philosophically speaking, the problem comes down to the study of the formula "subject (cognitive observer) + digital technologies".

Indeed, the expansion of intelligence in this sense is a serious philosophical, epistemological and methodological phenomenon. Because in this case it is not merely a matter of complementing non-classical epistemological, and methodological structures (systems, networks) with digital technology. The problem is related to the deeper layers' symbiosis, synthesis, unification, and "intertwining" of cognitive, social, cultural, and technological variables. This means that it is built on a foundation that is typically based on an organic synthesis of those factors. The fundamental principle behind Y. Hui's concept of "cosmotronics" is this one. In this framework, rational acceptability and the expansion of intelligence can be imagined as concepts that stand at the foundation of the philosophical-scientific understanding of the "science + digital technology" tandem at the modern stage. They provide two explanations for how the cognitive "extended subject" bears epistemic responsibility. First, in a digital society, the subject is only accountable for the cognitive expansion he selects and not for the beliefs that result from the epistemic environment. The subject may also reduce the amount of justifications that can be offered within the context of causal dependence by engaging in "cognitive expansion" [15, p. 209].

In the modern digital environment, the question of knowledge, its acquisition, functionalization, and socio-practical application gives rise to wider considerations of significant intellectual, spiritual, cultural, moral, and ethical importance at the present stage. We believe that this particular aspect emphasizes the profound humanitarian, philosophical, ethical, and socio-cultural implications of Y.Hui's concept of "cosmotronics," which resonates with the cognitive essence of natural science. To be specific, terms like rational acceptability, rational expansion, and intelligence expansion are



intrinsically linked to the process of understanding digital technologies. In a broader sense, they share a close connection with the epistemology of virtue.

In this context, S.Y.Shevchenko highlights that the discussion about expanded intelligence, particularly concerning cognition and understanding, can be seen as an extension of the reliabilist and responsibilityist approaches in virtue epistemology. It is known that reliabilism presents intellectual virtue as "reliable cognitive processes" within the framework of virtue epistemology [18, p. 22-37, 19].

In virtue epistemology, the concept of responsibility also refers to a group of views that describe intellectual virtue as excellent personal traits. However, some philosophers argue that responsibility and expanded intelligence may not be compatible with each other. For instance, the German philosopher Lucas Schwengerer posits that an Internet user cannot simultaneously possess an expanded consciousness and a virtuous consciousness. According to Schwengerer, a caring user either believes in the digital guide ("navigator") on the screen (has expanded awareness), or is critical of what he sees on the screen (virtue) [15, p. 213-216].

On the contrary, Hater Battay argues that responsibility and intelligence expansion can be compatible and even mutually beneficial in an epistemological context. There is an epistemological field in which consciousness expansion (a further expansion of cognitive horizons through digital technology) can be responsible. This viewpoint emphasizes the possibility of an intersection between the sense of responsibility and the cognitive domain [20, 21]. And discussions show that H.Battay is not alone in this position. Many researchers have begun to take an active approach to the issue against the background of increased accountability at a stage when the application of digital technologies is intensifying. For example, J. Simon came to this conclusion [22].

The issue has gained heightened relevance in light of the COVID-19 epidemic. Scholars like N. Levy and J. Savulescu label the dissemination of false information about the coronavirus through digital technology as "epistemological irresponsibility," emphasizing its perilous implications for science and society at large. They wrote: "The coronavirus crisis is different because there is not yet an expert consensus to which nonexperts can defer. Nor, however, is it a case in which the stakes are low, because decisions affect a variable that explains only a small part of the variance. For those decision-makers who must settle policy, it is a perfect epistemic storm" [23, p. 7]. Based on the philosophical-theoretical comparisons, it is possible to conclude that rational acceptability, cognitive (intellectual) expansion, the formation of knowledge and theories, their functionalization and globalization in socio-cultural practical communicative aspect, belong to the conceptual and methodological components of the general "digital cognitive expansion" phenomenon in the epistemological aspect. In other words, the epistemic responsibility of the cognizant subject is closely related to the digital "epistemic environment" that surrounds him and in that sense depends on it. As examples of this, we mentioned search services and social media above. As a result, digital cognitive expansion is an important topic in modern philosophical and scientific thinking. Among the study done on digital cognitive expansion, R.A. Heersmink and his colleagues' findings are remarkable [24, p. 1-12]. P. Smart, R. Heersmink and R. U. Clowes examine the role played by the Internet in digital cognitive expansion in the era of digitality based on the concept of "cognitive ecology". "Cognitive ecology" refers to the "multidimensional contexts" in which we individuate, think, perceive, communicate, imagine, and act. We do this mainly in a collective form and under conditions of constant active mixing with the environment [24, p. 251]. In this sense, the internet can be viewed as a new type of cognitive ecology that provides a vast amount of digital knowledge. And this process is becoming more "ingrained in our cognitive routine" [24, p. 251].

Situational cognition and cognitive ecology are inextricably linked. The cognitive process that "takes into account our living interactions with the socio-technological environment" is referred to as situational cognition. It turns out that the internet as a new type of cognitive ecology creates a unique cognitive situation and in this capacity gives a new impetus to the formation of digital cognitive expansion [24].



In the framework of digital cognitive expansion, R. Heersmink suggests nine intellectual or epistemological virtues. He divides them into the following categories: intellectual curiosity, intellectual autonomy, intellectual humility, intellectual attention, intellectual sanity, impartiality, intellectual boldness, and intellectual stability [25, p. 1]. By the way, in philosophy, the term "intellectual virtue" refers to the possession of traits like wisdom, knowledge, intelligence, perfection, skill, ability, and competence. In this piece, we also accept intellectual virtue in that sense.

Thus, the production of knowledge, the content of knowledge-information interactions, the functionalization of knowledge, and its social-practical application are all multi-vector linkages that are created by digitality. The question of authenticity of knowledge takes on a completely new content. In modern studies, this point is investigated in close connection with phenomena such as rational acceptability and digital cognitive expansion. As a result, the relevance of the epistemology of virtue is heightened in the context of the digital age. In this sense, the phenomenon of digital cognitive expansion plays a determining and guiding role in interdisciplinary relations at the modern stage. The realization of digital cognitive expansion occurs within the framework of more general philosophical and scientific considerations. In that quality, for example, globalization of scientific knowledge, cosmotechnicism and epistemology of virtue can be shown. The question of integrity, uniformity, and unity of knowledge within the context of intersubjective understanding is the general scientific-research challenge shared by all of these choices in the philosophical-scientific perspective. Approaching interdisciplinary relations in that perspective would be more adequate.

### CONCLUSION

1. The issue of achieving unity, synthesis, and integrity of knowledge in the intersubjective cognitive context at the contemporary stage is intricately linked to maintaining the subject's integrity and their engaged reflexive activity.
2. Another significant epistemological argument is related to the fact that these two components are "charged" to contemporary digital reality in substantive and communicative-functional dimensions.
3. From here, we might infer that the issue of the unity of knowledge and the structure of knowledge, or the development of scientific ideas, are closely related.
4. Furthermore, the importance of mechanisms that uphold knowledge unity in reflexive and active environments is evidently apparent.
5. The evaluation of knowledge based on the principle of "rational acceptability" in digital conditions shows that pluralism and alternative play an important role in the formation of knowledge. This process has a special meaning against the background of concepts such as "rational expansion", "cognitive expansion", "intellectual expansion".
6. In this context, the concept of "digital cognitive expansion" holds a significant place in contemporary philosophical and scientific comprehension.

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## **BİLİKLƏRİN BİRLİYİ, RASİONALLIĞIN GENİŞLƏNMƏSİ VƏ “RƏQƏMSAL KOQNİTİV GENİŞLƏNMƏ”: EPİSTEMOLOJİ YANAŞMA**

**F.M. Qurbanov, T.V. Əlibəyova**

Rəqəmsallığın cəmiyyətin müxtəlif sahələrinə geniş tətbiqi şəraitində elmi biliklərin birliyi və bütövlüyü məsələsi daha da aktuallaşır. Biliklərin vəhdətini təmin etmək dərin epistemoloji problemə çevrilir. Məqalədə bu məsələyə yeni rəqəmsal texnologiyaların tətbiqi fonunda fəlsəfi-elmi rakursda





baxılır. Göstərilir ki, biliklərin yaranması və funksionallaşması müasir epistemoloji yanaşmalarla sıx bağlıdır. Onların sırasında fəzilət epistemologiyası xüsusi yer tutur. Bu epistemologiya çərçivəsində rəşional qəbuledilənlik, rəşional genişlənmə, rəqəmsal koqnitiv genişlənmə kimi anlayışların qarşılıqlı əlaqədə tədqiqi aktualıq kəsb edir. Məqalədə müasir rəqəmsallıq şəraitində biliklərin yaranması və funksionallaşması mürəkkəb və plüralistik proses kimi araşdırılır.

**Elmi məqsəd.** “Rəqəmsal koqnitiv genişlənmə” epistemoloji fenomenini prizmasında biliklərin yaranmasının koqnitiv-sosial-mədəni mühit qarışılıqlı əlaqəsi kontekstində fəlsəfi-elmi dərkinə nail olmaq.

**Metodologiya.** Məqalədə fənlərarası metodologiya tətbiq edilir. Bunun üçün konkret olaraq intersubektivlik, sinergetik inteqraiya və koqnitiv genişlənmə metodoloji prinsiplərindən istifadə olunur.

**Metod.** Müqayisəli təhlil və sinergetik sintez metodları tətbiq edilir.

**Elmi yenilik.** Elmi biliklərin formalaşması fəzilət epistemologiyası çərçivəsində “rəqəmsal koqnitiv genişlənmə” anlayışı kontekstində araşdırılmışdır.

**Açar sözlər:** *texnoelm, postakademik elm, elmin finalizasiyası, rəşional qəbuledilənlik, genişlənməmiş zəka, kosmotexnika episteması, fəzilət epistemologiyası, intersubektivlik, koqnitiv ekologiya*

## ЕДИНСТВО ЗНАНИЯ, РАСШИРЕНИЕ РАЦИОНАЛЬНОСТИ И «ЦИФРОВАЯ КОГНИТИВНАЯ РАСШИРЕНИЕ»: ЭПИСТЕМОЛОГИЧЕСКИЙ ПОДХОД

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Вопрос единства и целостности научного знания становится все более актуальным в условиях широкого применения цифровизации в различных сферах жизни общества. Обеспечение единства знания становится глубокой эпистемологической проблемой. В статье этот вопрос рассматривается с философско-научной точки зрения на фоне применения новых цифровых технологий. Показано, что порождение и функционализация знаний тесно связаны с современными гносеологическими подходами. Эпистемология добродетели занимает среди них особое место. В рамках этой эпистемологии актуально изучение таких понятий, как рациональная приемлемость, рациональное расширение и цифровое когнитивное расширение во взаимодействии. В статье рассматривается создание и функционализация знаний в условиях современной цифровизации как сложный и плюралистический процесс.

**Научная цель.** Достижение философско-научного осмысления порождения знания через призму гносеологического феномена «цифровое когнитивное расширение» в контексте взаимодействия когнитивной и социокультурной среды

**Методология.** В статье применяется междисциплинарная методология. В частности, для этого используются методологические принципы intersubъективности, синергетической интеграции и когнитивное расширение.

**Метод.** Применены методы сравнительного анализа и синергетического синтеза.

**Научная новизна.** Формирование научного знания исследовано в контексте концепции «цифровое когнитивное расширение» в рамках эпистемологии добродетели.

**Ключевые слова:** *технонаука, постакадемическая наука, завершение науки, рациональная приемлемость, расширенный интеллект, эпистема космотехники, эпистемология добродетели, intersubъективность, когнитивная экология*