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KNOWLEDGE SOCIETY: A CREATIVE MODEL FOR UKRAINIAN REALITIES

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Abstract. The article analyzes the challenges and opportunities facing Ukrainian society in the context of global changes, and proposes approaches to forming an innovative environment capable of stimulating the development of human capital, creativity, and interdisciplinary interaction. The analysis shows that the concept of the knowledge society extends beyond the traditional understanding of the information society, emphasizing not only access to information but also the ability to comprehend, transform, and creatively apply it. The knowledge society is viewed as a conceptual model of social structure in which knowledge, information, and intellectual capital act as the key resources for development, power, and prosperity. The article proposes a creative model of the knowledge society, the functioning of which is based on the principles of openness, inclusivity, ethics, innovativeness, continuous learning, and others. It is substantiated that the foundation of the knowledge society is formed by educational and scientific institutions, technologies, human potential, and social processes.

Keywords: creativity, digitalization, education, globality of development, inclusivity, innovation, knowledge, knowledge society.

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1. Introduction

In the contemporary world, knowledge has become a key resource that determines the competitiveness of states, the efficiency of economies, and the quality of life of citizens. The concept of the knowledge society goes beyond the traditional understanding of the information society, focusing attention not only on access to information but also on the ability to comprehend, transform, and creatively apply it.

The relevance of developing a creative model of the knowledge society for Ukraine is determined not only by global trends in digitalization but also by specific internal challenges of an existential nature. In the context of a full-scale Russo-Ukrainian war (2022–present) and the need for post-war recovery, knowledge for Ukraine becomes not merely an economic asset but a critical instrument of national survival and the restoration of subjectivity.

To achieve this aim, the following objectives are defined…

- …to conduct a comparative analysis of leading global models of the knowledge society (the models proposed by Drucker (2009, 2011, 2017), the Organization for Economic Co-Operation and Development (OECD) (1996), United Nations Educational, Scientific and Cultural Organization (UNESCO) (UNESCO Institute for Lifelong Learning, 2026; Hutchins, 1968; Husén, 1974), and the quadruple helix model developed by other

various authors (Carayannis & Campbell, 2009)), identifying their limitations and potential applicability to the Ukrainian sociocultural context;

- ...to identify and systematize the key structural components of the creative model, including actors, resources, technological platforms, and processes of knowledge creation and dissemination;
- ...to substantiate the fundamental principles of the functioning of the knowledge society, in particular openness, inclusivity, interdisciplinarity, and lifelong learning;
- ...to forecast the expected outcomes of the model's implementation and to identify potential risks (digital inequality, ethical dilemmas, and information manipulation) in order to contribute to the formation of a balanced state policy.

2. Conceptualization of the knowledge society in interdisciplinary socio-humanitarian discourse

The concept of the knowledge society, which emerged at the end of the 20th century, has become the subject of numerous interdisciplinary studies in philosophy, sociology, economics, pedagogy, and other fields. In the works of leading researchers, like Toffler (1970, 1980), Castells (2004), Bell (1989), and Masuda (1983), the knowledge society is viewed as a new form of social organization based on cognitive labor, continuous learning, and high individual adaptability.

Modern publications on leading scientometric platforms dedicated to the knowledge society problem usually focus on its specific aspects: the impact of artificial intelligence on educational processes, digital literacy, and the transformation of the knowledge society through electronic learning (Hendra et al., 2025; Kovalenko et al., 2023); models of universities in the knowledge society, innovation systems (quadruple/quintuple helix), and the creative economy (Correia et al., 2024); the relationship between innovations, knowledge, and digital technologies in business, and the role of creativity in organizational transformation (Godadaw Ayinaddis, 2025); digital literacy and the influence of demographic factors on competence formation in the knowledge sphere (Prasetiyo et al., 2025).

Overall, the literature review indicates a growing interest in modeling the knowledge society, especially in the context of transformational processes. This opens up prospects for the formation of a new development paradigm where knowledge, creativity, and innovation act as key factors for sustainable progress.

3. Methods and data collection

The methodology for studying the main conceptual points in building the knowledge society involves the consistent application of general scientific, philosophical, and special methods and approaches, which allows for the achievement of the stated goal.

The initial stage of applying the methodology is a comparative analysis of the most indicative scientific publications related to the key conceptual aspects of the knowledge society problem. Special attention was paid to highlighting the features of understanding the problem of the transformation of the information society into the knowledge society through the prism of the main categories of social philosophy.

The next stage is the critical selection and substantiation of the essential components of the creative model of the knowledge society: main elements, principles of functioning of the knowledge society, expected results, and risks. The application of systemic and structural–functional approaches allowed for the investigation of the contradictory nature of this understanding due to the increasing complexity and diversity of information and knowledge processes in modern society. The analytic–synthetic method, as well as the methods of comparison and analogy, provided an opportunity to compare theoretical and methodological models for understanding the essence of societal development and its main spheres.

At the final stage, when definitively determining the main components of the creative model of the knowledge society, methods from all three levels were applied comprehensively, resulting in the generalization of arguments in favour of the authors' creative model.

4. Research results

4.1. Critical review of existing characteristic models of the knowledge society

In our opinion, to construct a creative model of the knowledge society that could form the basis of the Ukrainian variant, it is worth understanding the key proposals already available in the global scientific and economic continuum regarding such modeling.

To construct the authors' creative model, four models were selected that not only illustrate different perspectives but also form a logical sequence in the evolution of scientific discourse. The selection criteria included the scope of societal coverage (ranging from narrowly economic to comprehensive), the type of dominant resource, and the model's capacity to adapt to conditions of uncertainty.

The rationale for choosing these specific models is as follows:

1. Drucker's (2009, 2011, 2017) model (foundational) selected as the starting point, where knowledge was first conceptualized not as an abstract value but as a primary economic resource. It enables an analysis of the role of the individual knowledge worker as the fundamental actor of the system;
2. OECD (1996) model (technocratic–economic) included as the most representative example of a pragmatic approach, where the development of a knowledge society is measured through digitalization, investment in research and development, and patents. It is important for comparison with Ukraine's digitalization indicators (for example, the *Diia* application);
3. UNESCO (UNESCO Institute for Lifelong Learning, 2026) model (value-based humanistic) chosen to balance technocratic approaches. It emphasizes inclusivity, cultural diversity, and the concept of lifelong learning, which are critically important for Ukraine's social resilience under wartime conditions;
4. quadruple helix model (ecosystem-based) (Carayannis & Campbell, 2009) represents a contemporary network approach. It makes it possible to assess the synergy among four sectors: 1) government; 2) business; 3) academia; and 4) civil society, which in the Ukrainian context is manifested through the unprecedented interaction of the volunteer movement, the information technology sector, and state institutions.

In our view, this selection ensures the methodological completeness of the study from the analysis of an individual actor (Drucker, 2009, 2011, 2017) to the examination of global innovation networks (quadruple helix (Carayannis & Campbell, 2009)), thereby creating the necessary theoretical foundation for the development of the authors' creative model.

To conduct a systematic comparative analysis of these models, five key criteria were applied. These criteria allow for the assessment not only of the economic effectiveness of the models but also of their social resilience and capacity for adaptation under crisis conditions:

1. Fundamental paradigm determines the basic orientation of the model (economic, technological, or humanistic), making it possible to identify development priorities;
2. Central subject (actor) focuses on who serves as the driving force of change, whether an individual professional, networked structures, state institutions, or civil society;
3. Key instruments identify the technological and institutional foundations of the model, ranging from capital to digital platforms and ethical filters;
4. Mechanism of knowledge diffusion describes the modes of knowledge transmission and assimilation within society, which is crucial for understanding the inclusiveness of the model;
5. Attitude toward risks assesses the degree of awareness of the challenges of the digital era (manipulation, inequality, artificial intelligence ethics), which is decisive for social stability.

Thus, Drucker (2009, 2011, 2017) proposes a model of the knowledge society in which knowledge is considered the main economic resource, the knowledge worker is the central element of such a social system, and education and learning are viewed as the basis for the productivity of society's life activity.

In the model of the OECD (1996) of the knowledge-based economy, knowledge is also viewed as the driver of economic growth with innovation, research and development, and information technology considered its key components.

In the UNESCO (UNESCO Institute for Lifelong Learning, 2026) model learning society is focused on continuous lifelong learning, which is the basis for the sustainable development of the individual, society, and the economy, achieved through access to education, science, and culture for all (Stiglitz & Greenwald, 2014).

The quadruple helix model (Carayannis & Campbell, 2009) is oriented toward creativity, social change, and innovation through collaboration. Accordingly, the model aims to ensure competitive higher education, and the modernization of the educational process requires the alignment of interests between universities and business.

As we can see, the existing models are directly based on different visions of the specifics of the knowledge society and aim to describe separate aspects of this complex socio-cultural phenomenon.

4.2. Substantiation of the structure of the creative model of the knowledge society

Having analyzed the main ontological foundations of the knowledge society from the presented models, we can propose our own conceptual model of this socio-cultural phenomenon.

Importantly, the conceptual (theoretical) model of the knowledge society is a certain conceptual framework that should help describe how knowledge becomes a key resource in the development of society, economy, culture, politics, and so on. The creative model of the knowledge society proposed below is based on the idea that the production, dissemination, and application of knowledge is the main factor of socio-cultural progress.

The construction of the authors' creative model is based on systemic and structural–functional approaches. The model is conceptualized as a dynamic ecosystem in which each level (component) performs a specific role in transforming information into applied knowledge.

In our opinion, the main components of such a creative conceptual model of the knowledge society should be considered main elements (actors, resources, and processes), principles of the knowledge society functioning, expected results, and risks. Let us examine the proposed model in more detail.

4.2.1. Main elements: actors, resources, and processes

Undoubtedly, actors occupy a prominent place among the main elements in the knowledge society model. The selection of actors in the model is determined by the necessity of shifting from a purely institutional approach to an anthropocentric one.

Actors include, first and foremost, individual carriers of knowledge, skills, and creativity. These are highly qualified specialists, scientists, educators, information technology specialists, active youth participating in hackathons, startup companies, and scientific competitions, and citizens striving for self-development through online education (*Prometheus*, *EdEra*, *Coursera*, *etc*.).

Alongside the carriers of knowledge, skills, and creativity, institutions (educational, scientific) play an important role in the formation and functioning of the knowledge society. These include leading universities, research centers, schools, the library network, and educational platforms (the aforementioned *Prometheus* and *EdEra*, as well as *Diia*.*Osvita*, *etc*.).

The effective functioning of knowledge carriers and institutions is impossible without the following three main elements: 1) technological platforms – digital tools, networks, artificial intelligence; 2) the state as a regulator, investor, and guarantor of access to knowledge; and 3) business as an innovator, knowledge user, and driver of the economy. An important role is also played by individual elements of civil society: public organizations that popularize science (*INSCIENCE*, Junior Academy of Sciences of Ukraine, Ukraine), and volunteer initiatives that use knowledge to help the army and citizens.

In the model, resources are classified according to the type of their participation in the creation of added value. As one of the core elements of the knowledge society, they integrate knowledge (scientific, technical, humanities-based, applied knowledge, educational programmes, and scholarly publications); information (data, content, digital archives, statistics, and analytics); and intellectual capital (human, structural, and social).

In the knowledge society, resources are not only means but also conditions for development. Their effective use determines the level of innovativeness, competitiveness, and social progress.

Processes ensure the life cycle of knowledge within society. Among the great variety of processes, it is worth highlighting knowledge creation (scientific research, innovation,

education); knowledge dissemination (publications, media, training, popular science events); knowledge application (digital services and technologies, policy, business solutions, electronic governance); knowledge preservation (digital archives, libraries, repositories); knowledge evaluation (academic ethics and integrity, anti-plagiarism).

In the knowledge society, processes play no less important a role than resources or institutions. They ensure the dynamics of knowledge creation, dissemination, utilization, and renewal, and it is thanks to them that the knowledge society is living, adaptive, and innovative.

4.2.2. Principles of the knowledge society functioning

The principles of the knowledge society's functioning determine its structure, dynamics, and values. They form the basis for the effective creation, dissemination, and use of knowledge in all areas of life. Among the numerous principles, it makes sense to highlight the following key ones of openness, inclusivity, continuous learning, interdisciplinarity, innovativeness, globality, participation, and ethics.

These principles ensure the sustainability, effectiveness, and humaneness of the knowledge society. They allow knowledge to be not only a tool for development but also the foundation for a just, open, and innovative world.

The methodological novelty of our model lies precisely in the introduction of the principles of ethicality and inclusivity as mandatory conditions for the functioning of technological processes. In contrast to technocratic models, technologies (artificial intelligence, digital platforms) are treated here solely as instruments, whereas the vector of development is defined by a humanistic and value-oriented dimension.

4.2.3. Expected results

The practical implementation of any model involves identifying expected results. The expected results of the knowledge society's functioning include social, economic, cultural, and technological transformations that will contribute to sustainable development, innovativeness, and citizen well-being. Such expected results are quite obvious: increased quality of life, economic growth, social cohesion and democratization, innovative development, ecological and technological responsibility, global integration, and cultural enrichment.

The knowledge society is not just a technological or educational project, but a development model oriented toward the human being, their potential, and their well-being. Its results have a long-term impact on all aspects of life.

4.2.4. Risks

In the knowledge society, despite its numerous advantages, there are also risks that can affect social stability, ethical norms, economic balance, and individual rights. The risks of the knowledge society are potential negative consequences that may arise from excessive dependence on knowledge, technology, and information, as well as uneven access to them. They are caused by both internal contradictions within the knowledge society itself and external factors – political, economic, cultural, *etc*.

The main ones can be considered as follows: digital inequality, information overload, manipulation of knowledge, dependence on technology, commercialization of knowledge, ethical dilemmas, the loss of humanistic orientations, and geopolitical risks.

The comparative characteristics of the analyzed models of the knowledge society and the proposed creative model are presented in the Table 1.

Table 1. Comparative characteristics of knowledge society models (source: created by authors, based on Drucker, 2009, 2011, 2017; Organization for Economic Co-Operation and Development, 1996; United Nations Educational, Scientific and Cultural Organization, 2026; Carayannis & Campbell, 2009)

Criterion	Models				
	Peter F. Drucker's model	Organization for Economic Co-Operation and Development: knowledge-based economy	United Nations Educational, Scientific and Cultural Organization: learning society	Quadruple helix	Creative model created by authors
1	2	3	4	5	6
Main elements	Knowledge worker	Economy, innovation, information technology	Education, lifelong learning	Science, business, government, civil society	Actors, institutions, technologies, government, business, civil society
Type of knowledge	Applied, professional	Technical, economic	Educational, cultural	Innovative, applied	Scientific, technical, humanitarian, applied, cultural
Principles	Productivity, efficiency	Competitiveness, digitalization	Accessibility, diversity, sustainable development	Cooperation, creativity, social change	Openness, inclusivity, lifelong learning, ethics, participation, innovativeness
Role of institutions	Personnel training	Investors in research and development, education	Educational platforms, cultural institutions	Platforms for sector cooperation	Key: education, science, culture, policy
Technologies	Tool for productivity	Main driver of the economy	Means of access to education	Means of innovative interaction	Digital platforms, electronic governance, artificial intelligence
Civil participation	Limited	Low	High	High	Active: crowdsourcing, citizen science, volunteering
Global context	Partially	Through global markets	Through international education	Through international cooperation	Integration of local and global, mobility
Risks	Not addressed	Partially (digital divide)	Partially (educational inequality)	Not focused	Digital inequality, manipulation, ethical dilemmas, loss of humanism
Model of creativity	Average: economic efficiency	Average: technocratic approach	Above average: cultural and educational transformation	Above average: innovative sector cooperation	High: combination of humanistic, technological, social, and global aspects

The comparative overview of knowledge society models presented in the Table 1 demonstrates a gradual evolution from rigid industrial–economic frameworks (Drucker's, 2009, 2011, 2017) model) to flexible ecosystem-based approaches (the quadruple helix model (Carayannis & Campbell, 2009)). However, the analysis reveals that none of the existing models fully accounts for the factor of "forced creativity", which is characteristic of countries undergoing transformation or crisis (such as Ukraine). This finding substantiates the need to synthesize UNESCO's humanistic values with the network-based logic of the quadruple helix (Carayannis & Campbell, 2009) within the proposed creative model, in which knowledge is not merely a commodity but a key instrument of societal resilience.

It is evident from the Table 1 that the proposed creative model of the knowledge society is quite unique in its depth, multidimensionality, and humanistic orientation. It combines economic efficiency (like the Drucker (2009, 2011, 2017) and OECD (1996) models), educational inclusivity (like the UNESCO (UNESCO Institute for Lifelong Learning, 2026) model), innovative cooperation (like the quadruple helix model (Carayannis & Campbell, 2009)), and adds ethical, cultural, environmental, and risk aspects, which makes it creative and adaptive to modern challenges. The combination of values, technologies, institutions, and civic participation in the proposed model, as well as the consideration of today's global context risks and challenges, makes the proposed model of the knowledge society globally oriented while preserving the local context.

4.3. Validation of the model variables based on national development indicators

To confirm the viability of the proposed model, its key variables (actors, resources, and processes) were verified using data from the State Statistics Service of Ukraine, Ukraine, the Ministry of Digital Transformation (Ukraine), and international indices.

4.3.1. Validation of the cognitive–technological resource

The variables digital infrastructure and access to knowledge are supported by the dynamics of the implementation of public digital services. According to official data, the number of users of the *Diia* application has exceeded 23 million (Dzhuhalyk, 2025), indicating a high level of societal readiness to use digital platforms as a primary instrument of interaction within the knowledge society. This validates our assumption regarding the high adaptability of Ukrainian society to technological change.

4.3.2. Validation of human capital and the creative sector

The variable innovative activity can be verified through data on the share of the information technology sector in national gross domestic product (GDP). Despite the state of war, according to data from the National Bank of Ukraine, Ukraine, and the Information Technology Ukraine Association, Ukraine, the information technology industry remains one of the few sectors ensuring stable service exports. Furthermore, the share of creative industries in GDP (calculated according to the UNESCO methodology adapted in Ukraine) demonstrates resilience, thereby confirming the role of creativity as a stabilizing factor within the proposed model.

4.3.3. Validation of social capital and the quadruple helix

The interaction among actors (state – business – science – society) is validated by the unprecedented scale of volunteer activity and crowdfunding initiatives. Donation volumes and the number of registered non-profit organizations serve as indirect yet representative indicators of a high level of social cohesion (social capital), which constitutes a foundational element of the proposed model.

Thus, the model is not purely abstract; it is grounded in observable statistical trends. There are sufficient grounds to assert that the proposed variables have tangible manifestations within Ukraine's economic and social structure, which enables the model to function as an instrument for further forecasting and public policy planning.

5. Conclusions

The knowledge society is not just a technological or economic transformation but a deep socio-cultural evolution that requires conscious management, interdisciplinary dialogue, and active participation from all members of society.

The creativity of the described model of the knowledge society lies in its systemic, interdisciplinary, and innovative approach to understanding the functioning of modern society. The key aspects that indicate its creativity are complexity and multidimensionality, human-centeredness, integration of institutions and technologies, future orientation, integration of global and local processes, value orientation.

It appears that the results of the conducted study may claim the following scientific and practical significance:

- Academic value – a comprehensive creative model of the knowledge society has been developed as a multidimensional ecosystem integrating actors, resources, processes, and ethical principles. Unlike existing approaches, the proposed model combines human-centeredness with technological platforms and systematic risk analysis;
- Practical value – a set of conditions for transforming an information society into a knowledge society has been identified, which may be applied in the development of Ukraine's national development strategies;
- Risk governance – the model systematizes, for the first time, key challenges (digital inequality, knowledge manipulation, and the erosion of privacy), thereby enabling the design of preventive protection mechanisms under conditions of digitalization;
- Sociocultural dimension – it is substantiated that the success of the model in the Ukrainian context depends on the active participation of civil society (crowdsourcing, citizen science) and adherence to the principles of academic integrity.

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