

Розділ 1. Проблеми теорії інформації та наукової комунікації

Part 1. Theory and history of social communications

https://doi.org/10.31516/2410-5333.058.01

УДК 002(075.8)

Y. N. Stolyarov, Doctor of Pedagogical Sciences, Professor, Main chief researcher, «Scientific and Publishing Center “Science”» of the Russian Academy of Sciences, Moscow

yn100@yandex.ru

http://orcid.org/0000-0002-9597-4275

«STRANGE» LAWS OF THE THIRD WORLD — THE WORLD OF DOCUMENTS¹

The article deals with the statement that the conception of three worlds (physical, mental and the world of objectified knowledge), suggested by Karl Raimund Popper (1902–1994), sets its object as a document described as materialized information. Arkadii Vasylovych Sokolov (born in 1934) puts the third world into noosphere, calling it Biblio-voice. Being as big as two other worlds, the world of documents has its own terms, laws, features that do not relate with the laws of physical and ideal worlds as well. It is demonstrated how these laws appear in generary, material, semantic, signative, temporal aspects of a document as an object of information. It is proved that because of worldwide civilizational importance of the third world expressions in digitalization century the future of humanity depends exactly on it. That is why the prime importance task of the modern science is to develop key issues of document studies and theory of information.

Keywords: *philosophy, the thirds world, noosphere, K. R. Popper, A. V. Sokolov, Bibliovoice, laws of document studies, document definition, aspects of a document: generary, material, seme, signative, temporal.*

Ю. М. Столяров, доктор педагогічних наук, професор, головний науковий співробітник, «Науковий і видавничий центр “Наука”» РАН, м. Москва

«ДИВНІ» ЗАКОНИ ТРЕТЬОГО СВІТУ — СВІТУ ДОКУМЕНТІВ

Обґрунтовано тезу, згідно з якою концепція трьох світів (фізичного, ментального і світу об’єктивованого знання), запропонована Карлом Раймундом Поппером (нім. Karl Raimund Popper; 1902–1994), має своїм предметом документ як матеріалізовану інформацію. Розглянуто, що Аркадій Васильович Соколов (народ. 1934) поміщає третій світ до ноосфери, називаючи його Бібліологосом. Визначено, що, як рівновеликий поряд з двома іншими, світ документів має власні поняття, закони, особливості, що не зводяться до законів як матеріального, так і ідеального світів. Показано, як проявляються ці закони в генерарній, матеріальній, семантивній, сиг-

1 This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

нативній, темпоральній складових документа як інформаційного об'єкта. Доведено, що з причини всесвітньої цивілізаційної важливості проявів третього світу в столітті цифровізації саме від нього залежить майбутнє людства, тому сучасна наука має передусім розробляти ключові проблеми документології та теорії інформації.

Ключові слова: *філософія, третій світ, ноосфера, К. Р. Поппер, А. В. Соколов, Біблійологос, закони документології, дефініція документа, складові документа: генерарна, матеріальна, семантивна, сигнативна, темпоральна.*

Background. Since the very moment when Sir Karl Raimund Popper (July 28, 1902 – September 17, 1994) had suggested the conception of three worlds (physical, mental and the world of objectified knowledge) the world scientific society took it for granted, i.e. it neither criticized it nor developed. It is Valerii Pavlovich Leonov is considered the most prominent and consistent representative and promoter of Popper's ideas In Russian science, who highlights them in details in his books (Leonov, 2003, p. 24–28; Leonov, 2008, p. 101–104). Before we make our first step on this way, we have to introduce the author of a new attitude briefly.

His biggest fame Popper gained due to his works on philosophy of science and social and political philosophy as well. Having creatively rethought in his consciousness the attitudes of K. Marx, F. Engels, K. Kautskii, E. Bernstein, A. Einstein, Z. Freud and A. Adler, he is also the founder of whole new attitude to the world. He defended his PhD thesis (topic: cognitive psychology methodology, 1928) but being a professor, he was perfect at mathematics and natural sciences. From 1946 to mid 70s he had been working as a professor of logics and a dean of philosophy, logics and scientific methods department in The London School of Economics and Political Science. For his scientific merits he was made a knight in 1964. In 1976 Popper became a member of Royal Society of London, in 1982 was awarded with Order of the Companions of Honour and got Alexis de Tocqueville Award (1984) (only one person among the soviet scientists was awarded with it – outstanding Russian philosopher, writer, sociologist, publicist Aleksandr Aleksandrovich Zinovev (1922–2006) and Kyoto Prize (1992).

Popper was in evidence in several spheres at once: epistemology (theorist of critical realism), sociology (theorist of open society) and gnoseology. In this case we are particularly interested in his later works of gnoseological format – “Objective knowledge: An Evolutionary Approach” (1972, the second corrected and revised edition was translated into Russian in 1979 and this translation had later been repeated), “Postscript to the Logic of Scientific Discovery”, v. 1–3, – (1982). In these works he suggested the existence theory of three worlds:

- World of physical objects and conditions.
- World of psychical and mental conditions of consciousness.

– World of objected knowledge.

The contents of the third world include scientific assumptions, literature works and other objects that do not depend on self-perception, – in fact, all man-made objects, i.e. all the sphere of culture, but among them documents stand on the first and dominant place. Russian philosopher and cultural scientist Arkadii Vasilevich Sokolov (born on February 10, 1934, Leningrad) refers the third world to noosphere calling it Bibliovoice and discovering the origins of its analysis in classical philosophy in the works of Anaxagoras who lived and worked in V century B.C. (Sokolov, 2020, p. 42). Bibliovoice is suggested to be a collective mind of historically stable community of people who deal with book culture, who write and read books and also actually take part in creating bibliosphere. Classical Bibliosphere is defined as supersystem of book and communication systems, that provides functioning, maintenance and further development of national book culture. The structure of bibliosphere includes social and cultural institutes (systems or spheres of book industry), namely: publishing industry, printing industry, bookselling, library science, bibliographical science. A. V. Sokolov examined the symbolic conception of nature and essence of a human that had been developed by the classic of the XX century philosophy Ernst Cassirer (July 28, 1874, Breslau, now Wroclaw – April 13, 1945, Princeton, New-Jersey, USA). It explains a cultural and historical unity “human – book”. According to the philosophy of symbolic forms the world of books representing bibliosphere by itself is for a cultivated person as natural and an essential part of life environment as an ecology suitable for life (Sokolov, 2020). Taking into account the sign culture of nature Cassirer omitted the unity of sign and material aspect of culture works in his works and as a result did not achieved the comprehension of the third world in its entirety. Sokolov A. V. is convinced that in front of library science, pedagogics and library profession in the whole there is an important and demanding challenge – to provide the use of different library resources for humanistic noospheric transformations of modern society (Sokolov, 2019).

The aim of the paper is to prove that the world of physical objects cooperates with the world on psychical conditions and the second one creates the world of objected knowledge that exists irrespectively to its creators.

Results. According to Popper knowledge does not depend on cognizing subject. The first and the second worlds are linked through the third world that on the one hand is man-made but on the other hand is superhuman because “knowledge without knowledge subject” is concentrated in it (Popper, 2002, p. 116–120), and they are not simply kept in library stocks but have an ability to cooperate with each other and create new knowledge. Materialized knowledge was considered to be the most important civilizatiional phenomenon by Popper. If all achievements of human mind disappear due

to any reason but the libraries with the treasures of materialized knowledge are saved, the civilization will have the only chance for resurrection.

Sequences from the theory of the third world

In addition to already known two habitual worlds – physical (natural, materialistic) and mental (spiritual, ideal) it is suggested to admit the existence of one more world that is equal in rights and size to them – the world of materialized knowledge. Physically knowledge is objectified in a form of documents. As a coeval of document studies founder Paul Otlet (*Paul Marie Ghislain Otlet*; August 23, 1868, Brussels, Belgium – December 10, 1944, ib.) K. Popper could have used the term “document” but his followers are to dig into these ins and outs. Popper made much more important discovery: he attracted the attention to the existence of a new world that is parallel to the other two ones already known. This new attitude claims that in the third world there are its own laws and principles that are not restricted to well-known philosophic attributes.

New claims must look strange, different from everything, otherwise they would represent by themselves no more than a kind of either materialistic or ideal world. They must be identified and cognized, as the saying goes, *ab initio*, as it usually is in materialistic and ideal world. But there such cognizing is held during centuries and millennia and the ideologists of Popper’s world will have to catch up with achievements of already formed up philosophical attitude to the world literally in quantum leaps but even they will be just too slow.

Conditionality of the term “document”

Specific demonstrations of the third world occur in relation to each of document components. Principally they relate to relativity of term “document”. As the objectified knowledge lives by its own, we need to identify the features of this life. And here we will principally have to admit the perception narrowness that the book after it is created always remains the same irrespectively to the fact if it was used afterwards or not. Like Popper does, indeed it can be compared to hornet’s or bird’s nest that remains the same even if it was left or even if hornets or birds have never lived there. (Popper, 1983, p. 450). But such information object similar to such nest can be called a book only in ontological sense. In functional sense the book that lies without any movement is not a book. K. Marx payed attention to the similar situation claiming that “a product becomes a real product only when it is used. For example, a dress becomes a real dress only when it is worn; a house in which no one lives is not a real house” (Marx).

Hence, the term of “book” or talking broader, “document” is relative: on one score (as applicable to physical world) the created information object is a book irrespectively to the fact whether it is being read or not at the moment;

on the other score (as applicable to mental world) a book that is not used by the reader is truly “just a paper with ink spots on it”.

Library is in a difficult position: if it belonged only to the second ideal world it would have to delete all unused books at the moment from stocks. But however, what would it do if immediately after this action it received a request for this book? That is why we distinguish the status of a book (document) that have real value (for books that are being used in the current moment) and that have potential value. Only the books that represent no value among the readers and do not correspond the profile of library stocks are deleted from stocks.

This situation can be interpreted in another way if we distinguish the documents that are in static (in a state of rest) and the ones that are in dynamics (in a state of movement). Anyway, apparently the term “document” is not one dimensional, it is multidimensional and dialectic. Beyond that, stocks manager must have not only the skills of distinguishing a book from not-a-book, he also must realize its value, profile, timeliness, novelty, scientific and/or practical significance, art and spiritual dignities. Abstract definition of a book is not enough for him. That is why it is important to have scientific definition of a book (document) that reveals its main essential features.

Conditionality of the term “document”

Relativity as basic determinative feature of a document can be seen in an exceedingly broad range. It allows us to consider any object as a document – materialistic as well as spiritual – under one condition: if required information can be extracted from it. Therefore, the term of “document” is not only relative but also conventional.

International Organization for Standardization (ISO) sticks to exceedingly broad definition of “document”: *document is “a written information or materialistic object that can be used as a unit in documentation process”* (ISO 5127/1: 2017. Information and documentation: vocabulary). This definition can be defined more precisely in two aspects. Firstly, written information is neither more nor less than materialistic object and therefore the words “written information” are odd. Secondly, the rules of defining the terms prohibit the use the defined term in the definition because in such case vicious circle emerges. The word “documentation” in the definition should be replaced with the word “semantic”, this will give required clarity to the definition.

Thus, *document is an object that is able to serve as an information bit in the particular semantic process (phenomenon). The fact of obvious presence, entry format (if available) and other information parameters are unessential; the only condition: contents and extent of extracted information must be essential*

and sufficient to consider it to be a complete unit of exactly this semantic process or event.

Document as a subject of the third world

Document perceived as subject belongs to the physical world. If a subject has any information it refers to the world of ideal terms. Ability to extract the information and to correlate it with semantic process or event profile allows to include it into this process (event) as a relatively independent information subject and to examine it as an element of the objectified knowledge world or the world of documents.

Generary and materialistic aspects of a document

There are no restrictions for generary (lat. *genĕro* – give birth, create, produce) and materialistic aspects of a document. Therefore, by its origin (generary aspect) a document can have either natural (linear or biogenic including homo(anthropo)genic) or artificial (technogenic) origin. At the present moment of history in the world predominate homodocuments and electronic documents but the invention opportunities of brand-new kinds of documents are only beginning to be mastered. It is known that medium can appear in two conditions: substance and energy that can merge into each other. Therefore, materialistic aspect of a document can be substantial and makeshift as well. As the materialistic aspect usually dissociates into base material (for example, paper) and entry material (for example, printing ink), each of these components is able to be materialistic and energetic as well (electronic document). Methods, instruments, entry size, design shape and other materialistic parameters of a document can endlessly vary – we assure ourselves of it every time and everywhere, seeing a vast amount of existing types of documents and emerging of new ones.

Herewith there is a regularity: At the same time, a regularity was established: document type existence duration depends on the fact whether it has any advantages comparing to other types. If at least one of such advantages is maintained or detected this document type remains demanded in the social environment where this advantage is critical.

One of “strange” correlation features of tangible medium and information kept on/in it is when this information is shared through space and time it is transferred into other media but herewith it is saved on original medium too. This provides theoretical indestructibility of once created document and also an ability of endless copying, multiplying of initial information: as far as the information is being withdrawn from the original medium it is being saved on it at the same time without having its amount reduced. In the third world the law of the first world – conservation of substance and energy (Lomonosov law: “if something disappears in one place, then it appears in another one”) – is not effective! When being shared information

is transferred from one place to an infinite number of other places, however it is saved on an original medium. When it is withdrawn from the original medium its amount is not reduced, it is multiplied. It is a law too, but it is the third world law.

In physical world nails are to be produced from iron, pies are to be cooked from flour and you cannot mix up the original ingredients. The third world is free from such a strict dependence: the same medium can contain different information; the same information can be kept on different media. This postulate also has a rank of a document studies law.

Signative aspect of a document

Signative aspect (lat. signum – sign, picture, signal) of a document is demonstrated in an exceedingly unique way in the third world. Unlike the first and the second worlds where the subjects and terms are represented directly, in the third world they can be shown exceptionally through the other objects, events, actions, experiences, – to be brief, with help of a sign. Direct transfer of thoughts can be realized only in miracles and fantasies yet. In fact, the miracle is the representation of thoughts in the form that is different from them, as if instead of an apple pie we got a set of ballpoint pens or Hegel's philosophic essay.

The circumstance that the information phenomenon exists only in abstraction and in real life information is always demonstrated in seamless unity with a medium and a system of signs, i.e. in a form of document, is understood by hardly everybody and because of that we can see a huge amount of incorrect expressions misrepresenting nomenclature of different sciences. For example, let us think over the term “information retrieval system” (information retrieval instrument, information retrieval language etc.). The aim of this system is not to search the information but to search the document that contains required information. Therefore, this system should be called document retrieval.

It is necessary to clarify what is meant by the expression “analytical and synthetic recycling of information”, which has become so common that it gave the name to the corresponding university textbook (*Analytical and synthetic information processing*, 2013). It is a good half of it, four out of eight chapters that make up the main body of educational material, which refer to the document even by name: “Subjecting documents”, “Organizing and classifying documents”, “Annotating documents and electronic resources”¹, “Abstracting documents” ... The classic monograph by A. I. Mikhailov, A. I. Cherny and R. S. Gilyarevsky “Fundamentals of Informatics” (Mikhailov, Cherny, Gilyarevsky, 1968) also describes documents (chapter

1 The expression “electronic resources” is another attempt to erase the concept of “document” from the professional lexicon, in this case “electronic document”.

2), their processing (erroneously named processing) (chapter 3), copying and reproduction (chapter 8). The so-called information retrieval system is based on the concept of “retrieval image of a document” that is a document, but not information.

Due to the same reason in the real life there is no and cannot be an *information system* as a phenomenon that is designed for “keeping, processing, searching, sharing, transferring and delivering of the information”, but there is a documentation system because it does not deal with clear information but always and certainly with information in a form of signs, that is kept on a medium etc., i.e. with a document. The ordered collection of *documents*, facts or their data should not be called document collection because it is incorrect. If information resource exists somewhere, it exists only in abstraction or in heads of its creators overwhelmed with fantasies. In fact, this resource is always documental. The expression “documentated information” has no sense because the word “documentated” implicitly contains the term information: documentating – creation of a document on a tangible medium with help of different methods, ways and information entering instruments. Hence, the expression “documentated information” literally means absurdity: “information, entered on a medium information”. Instead of the incorrect expression “documentated information” it is more appropriate to use term “document”. As correct terms can be considered “document search profile”, “documental resource”, “document collection”, “document flow” et al.

Meanwhile such expressions as “information need”, “information request” are correct: a reader needs exactly information, but it is secondly for him in what form it will be represented in the document.

The term “sign” can be demonstrated as very different in the third world. Sign is understood as a representative of information that stands behind it and can be any; it can mean anything or nothing or mean emptiness (simulacrum). Absence of a sign at certain circumstances can also be a sign, i.e. even so transfer required information. Sign and something that is signified by it can exchange their places. Sign can represent itself and then we will deal with authentic (not authentic!) document.

Obtaining increased meaning, a sign becomes a symbol; it can influence on something that is signified by it and not just be its representative. Meaning of a sign can broaden, restrict, transform. A sign can turn into a code (converted sign or a sign of a sign). Plasticity of sign has already led to virtual reality with all its positive and no less than worrying negative consequences for brain, behavioral strategies and thinking pattern.

Semantic component of a document

A document is essentially information. But, as it has been already noted, information is not in its pure form, but presented in a symbolic

form on a tangible medium. The informational, or semantic (from ancient Greek σηματικός “denoting”) component is the most important among all its components, since it refers to the semantic meaning of the document, that is, actually, for the sake of which it is created, processed, stored, distributed, used. Researchers have long been interested in the question of what information is in essence. Many explanations have been put forward, up to the most bizarre and mutually exclusive. So, according to the most optimistic version, information is primary, everything in the world is made of it. An elementary particle of the Universe, in accordance with this version, is incorporeal and massless information as the primary basis of all subsequent combinations with it, leading to the creation of matter, including thinking. According to the pessimistic view, there is no information at all (who saw it, felt it where and when?); all reasoning about it is speculative, devoid of specific content. Between these extreme positions there are interpretations, according to which information appears on condition that the researcher puts on the so-called information glasses; that information is generated by lepton (standing) waves; information is material and matter is informational; that information is a subjective reality; etc. (Shaginyan, 1981).

The fact that K. Popper neglected the information approach and that, according to the just remark of A. V. Sokolov, impoverished his theory (Sokolov, 2010, p. 226). Meanwhile, failures in explaining the nature of information lie, perhaps, in the fact that they are trying to discover its sources either only in the first or only in the second world, whereas it would be useful to turn to the third world. It is natural for him to express spiritual meaning through a sign as a materialized thought, a mediator between an idea and its materialized embodiment. The unity of an objective material sign and the subjective meaning endowed with it by a person forms a phenomenon called a document. When operating with the concept of a document, there is no need to build complex and contradictory constructions of ambivalence of information, dualistic monism in explaining its essence. Information appears as a subjective reality imprinted in objects of the material world – this is, apparently, a dialectical explanation of the phenomenon of information.

Temporal aspect of a document

Just as relevant is comprehension of temporal (lat. *tempus* – time) aspect of a document. A man shouted however he realized the futility of his wish: “Oh, moment, freeze, you are beautiful!” It is true that it is impossible to freeze the moment neither in the first world nor in the second one. But the whole third world is just nothing else than frozen time! The main qualitative difference of the third world from the other two is that its subject is time frozen and saved in a document. The thing that was balked at by the first two

worlds became a subject of the science about the third world – the world of objectified knowledge.

Here omitting this peculiarity as unessential one for this case, the examination of the difference between terms “information” and “knowledge”, we mark up the main thing: as a writer Marietta Shaginyan said: “libraries are first of all a giant concentration of compressed time, a sort of junction of millennia of human’s thoughts transferred onto parchment, papyrus, paper for the life in *permanency*, not in *fluidity*” (Shaginyan, 1981, p. 48). Libraries are keepers of the main thing that a human leaves after his death: his thoughts, his soul, and his emotions. In fact, the second world has an opportunity to be developed only due to the existence of the third world. Meanwhile, all the achievements of the second world are materialized in a form of documents and kept in library stocks.

Space is also subjected to the third world because the humanity invented methods of accumulated information sharing not only through time (with help of static documents in form of stony stelae, inner and outer surfaces of buildings) but also in the space – by means of the invented portable, movable and easily transportable documents. Humanity went even further when found a way to tear the information off the medium (saving it on it at the same time!) and to transfer it at lightspeed to any place of the Earth and even beyond its boundaries.

As a master of time a library associated the whole its technology with this category. It divides documents into nonperiodical, periodical, and sporadic ones. Their order, accounting, processing and arrangement drastically differ at the technological level. Storage period of documents of different types in libraries, archives, scientific information institutions directly depends on temporal aspect. The latter defines half-cycle of information aging, so called “half-life” of a document. This term is a basis for Bradford’s law of scattering – one of fundamental clauses of library stocks management. The moment of copyright emergence is also defined by the date of publication release approval, duration of copyright is also subjected to chronological aspect. Otherwise speaking, temporal aspect of a document is essential theoretically and practically as well.

Document as the most genius invention of humanity

Invention of document is one of the most important inventions of a man. It vastly precedes any others genius inventions like invention of a wheel or mastering the possibility of using a fire. Document goes along with a man through his entire life and often keeps its meaning (historical, cultural, legal) after his death. Having invented a document, in certain cases a man became its hostage because if he lost his document, he would lose his rights, property and dignities. A document is a concentration of all humanity knowledge

about the first and second world as well and in the course of perceiving the third world – about the third world too. The history of humanity began since the written document emergence moment. All the previous period is called prehistorical.

There is a big threat that the civilization history will be finished with the end of document development history because the phenomenon of dependence from a document has expanded up to planetary proportions. It is also necessary to study the phenomenon of documental resonance: when the emergence of one document causes a “tail” of documents and can evoke a collapse of documents in society.

Document furcation as an engine of progress

Ultimately the real engine of social development is a document furcation that drastically influences the fates of society positively and negatively as well. Current ongoing digitalization of document technologies will have tremendous success in technical equipment of a man and the whole society but also will cause severe planetwide sequences. That is why the main efforts of scientists must be aimed on studying the third world of documents.

Conclusions. Nowadays science is just beginning to cognize the third world with its unique laws and demonstrations. By its importance it stands near two already known worlds. The suggested by K. Popper conception is worth being honored with the Nobel prize. Popper's conceptual view represents dramatic complement to the existing world view. Document is invented by man, designed for satisfaction of man's needs and exists in physical world (world No.1), – all this is truth. However, it is also the truth that the world of documents is a special world with its specific demonstrations, laws and principles. Cognizing and following practical use of them is a regular relevant objective of philosophy and document studies. Humanity will have to realize that the problems caused by realities of the third world will have to be placed into the forefront of its attention in the nearest future because the further or perhaps final fate of civilization depends on its decisions.

References

- Analytical and synthetic information processing: textbook* (2013). A. V. Sokolov (Scientific editor). St. Petersburg: Profession. [In Russian].
- ISO 5127/1: 2017. *Information and documentation: vocabulary*. (2017). P. 1. Basic concepts, P. 5. Switzerland. [In Russian].
- Leonov, V. P. (2003). *Library space. Library symphony*. The Russian Academy of Sciences, Library of RAS. Moscow: “Nauka”. [In Russian].
- Leonov, V. P. (2008). *Besame mucho. Travel to the world of books, bibliography and bibliophilism*. The Russian Academy of Sciences, Library of RAS. Moscow: “Nauka”. [In Russian].

-
- Marx, K. (1968). *Economical manuscripts of 1857–1859*. V. 46, pt. I, p. 27. [In Russian].
- Mikhailov, A. I., Cherny, A. I., Gilyarevsky R. S. (1968). *Fundamentals of Informatics*. 2nd edition, revised and enlarged. Moscow: Nauka. [In Russian].
- Popper, K. R. (1983). *Logics and growth of scientific knowledge: selected works (transl. from Eng.)*. Moscow: “Progress”. [In Russian].
- Popper, K. R. (2002). *Objectified knowledge: evolutionary approach*. Moscow: URSS. [In Russian].
- Shaginyan, M. S. (1981). *Four lessons from Lenin*. Moscow: “Molodaia gvardiia”. [In Russian].
- Sokolov, A. V. (2010). *Philosophy of information: professional and ideological textbook*. St. Petersburg: Saint Petersburg State Institute of Culture. [In Russian].
- Sokolov, A. V. (2019). Noosphere Man in the library of future. *Library studies*, V. 68, No. 1, p. 7–17. Retrieved from <https://doi.org/10.25281/0869-608X-2019-68-1-7-17>. [In Russian].
- Sokolov, A. V. (2020). Essay about library postmodernity. *Culture and arts bulletin*, 1 (61), p. 7–18. [In Russian].
- Sokolov, A. V. (2020). Libraries in smart-cities: on the occasion of 100 years of noosphere conception. “*Universitetskaia kniga*” (April, p. 42–45). [In Russian].
- Stolyarov, Yu. N. (2000). *The essence of information*. Moscow. [In Russian].

Надійшла до редколегії 10.09.2020 р.