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AmurCon 2021: International Scientific Conference**APPROACHES TO THE DEFINITION OF THE TERM**
"DIGITALIZATION"

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Abstract

This article analyzes various approaches to the definition of the term "digitalization", examines the problems of the role, influence and significance of the digitalization process in modern society, examines the position of the authors of scientific papers on this problem, as well as individual elements, characteristics and goals of this process. In order to solve this issue, general theoretical methods were used - analysis, comparison, generalization of the researchers works to determine the meaning of the term "digitalization" in various directions of the influence of the phenomenon under consideration. At the same time, in order to study the relevance of the problem posed by this work, the analysis of scientific positions on the significance and impact of digitalization on certain spheres of public life has been carried out. Based on the results of the study, the author identifies individual approaches, highlights distinctive features, and also proposes an author's approach to defining the term "digitalization", formulates a conclusion about the role and significance of the digitalization process in the 21st century in the life of individual citizens and society as a whole. Thus, within the framework of the study, its goal and objectives have been achieved - the study and analysis of approaches to the definition of the concept of "digitalization", as well as the comparison and generalization of the positions of researchers on this issue, the criteria for the phenomenon under consideration have been established.

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1. Introduction

A distinctive feature of the 21st century, marked by the advent of the era of information technology, has influenced the increasing importance of the use of digital systems and the digitalization of certain areas of public life in general. The question of the role and impact of the digitalization of modern society was reflected in the works of such researchers as Dremluga et al. (2019a, 2019b), Bachilo and Shmakov (2017), Volodenkov (2017), Herrmann (2020), Kamensky and Grimov (2019), Bocharnikov & Chemezov (2020), Khomyakova (2019) and other authors (Baranov et al., 2018).

In their works, the authors focus the reader's attention on the impact of digitalization on the most important spheres of society's life - from the economic to the political sectors. At the same time, in the studies of Dremluga et al. (2019a, 2019b), Bachilo and Shmakov (2017), Volodenkov (2017), both positive and negative aspects of the transformation of various spheres of public relations are highlighted. Herrmann (2020) As part of the research, he analyzes the harmful effects of digitalization on social development, based on such shortcomings as "confusion between the technical dimension of digitalization and its application as a definition of business models and the assumption of a reasonable socio-economic norm that never actually existed" (p. 120).

Kamensky and Grimov (2019) define and describe indicators of public reflection on the problems of digitalization, as well as possible landscapes of digital reality, indicating that within the framework of the implementation of new landscapes it will be important to take into account "the balance of non-human and human subjectivity so that a person does not become an appendage of technology and not only supports but also develops his creative and intellectual potential in addition to competition in the global digital economy" (p. 4857).

Bocharnikov and Chemezov (2020) conduct a study of the problems and priorities of digitalization policy, analyzing the processes of implementation of digitalization of the economy and other spheres of public relations in Russia, as well as considering the successful experience of foreign countries in the area studied by the authors. Also, Kruchinina et al. (2020) in their work describe the impact of digitalization on certain forms of functioning of the state apparatus, on the systems of economic and business processes, as well as the socio-cultural environment of society. In addition, the authors investigate the possibilities of digital systems in public administration against the background of the crisis caused by coronavirus infection.

Khomyakova (2019) emphasizes in her research the fact of the active development of modern technologies, which in turn leads to the formation and application of conceptually new terms and definitions related to the digitalization of society.

Thus, the role and significance of such a phenomenon as digitalization leave no doubt about its reality.

2. Problem Statement

At the same time, a single, generally accepted concept of the definition of "digitalization" is not established in the doctrinal base, which is emphasized in the works of Meshcheryakova and Rogotneva (2021), Mirkina (2019). However, there are different approaches to the definition of the phenomenon of

the XXI century in the studies of Gadetsky and Koryakina (2020), Gaivoronskaya et al. (2019), Gerasimova and Moskvitina (2019), Yedzayeva and Chizhik (2020), Zagrebin and Serova (2020) and other authors.

The above-mentioned provision requires appropriate research in order to analyze, highlight and designate digitalization criteria for unambiguous determination of the definition meaning.

3. Research Questions

Thus, in order to study approaches to the definition of the concept of "digitalization", it is advisable to analyse, compare and generalize the positions of researchers on this issue, to identify criteria, distinctive features of the XXI century phenomenon.

4. Purpose of the Study

The purpose of this work is to study individual approaches to define the term "digitalization". To achieve this goal, the following provisions of the tasks are outlined: research, analysis and comparison of the positions of researchers on the definition of the concept of "digitalization", the study of the features, criteria of the phenomenon under consideration, the proposal of the author's definition of this term.

5. Research Methods

Within the framework of this study, general theoretical methods of analysis, comparison and generalization of the scientific base on the consideration of approaches to the concept of "digitalization" in various directions of the designated problem (economic, legal, social and others) were used.

In addition, in order to substantiate the relevance of the problem of this work, an analysis of scientific research on the significance and impact of digitalization on certain spheres of public life was carried out.

6. Findings

The doctrinal base, reflecting the semantic content of the definition of "digitalization", depending on the sphere of influence, is conditionally divided into four main areas.

The first direction is related to activities in the field of economics and public administration, where Gadetsky and Koryakina (2020), Yedzayeva and Chizhik (2020), Konkov (2020), Khalin and Chernova (2018) reveal the definition of digitalization in the narrow and broad sense - as "transformation of information into digital form. They also consider it as a "trend of effective global development", provided that the digital transformation of the information field meets certain requirements, such as the coverage of production, business, science, social sphere, as well as the everyday life of people; provided only the effective use of the results of digitalization; with the availability to users of the results of the transformed information used not only by specialists but also by citizens who do not specialize in digital technologies; however, at the same time, it is important that these users have the necessary work skills (Gadetsky & Koryakina, 2020, p. 24).

Gerasimova and Moskvitina (2019) define the content of the concept of "digitalization" in the general sense and in the field of public administration. In the first case, digitalization refers to a process involving the introduction and use of innovative technologies, as well as the principles of the digital economy in the context of the socio-economic life of society, accompanied by absolute "automation, robotics and the introduction of artificial intelligence." In the field of public administration, the term refers to the creation and application of modern systems, technologies and tools in order to improve the effectiveness of management decisions and services offered (Gerasimova & Moskvitina, 2019, p. 314).

Kuznetsova (2019) also means that the term "digitalization" was primarily formed in close relationship with the problems of culture, the shift to the problems of the economic sector occurred later. And yet, according to the author, in the context of economic theories, digitalization refers to the process of transformation of an individual enterprise or the economic industry as a whole into new models of processes based on the use of information technologies (Kuznetsova, 2019).

With the introduction of "digital technologies and platform solutions" into various spheres of public relations, the term under study is defined by Pavlyutenkova (2019, p. 122). Saprykova et al. (2021, p. 30) in their article explore the concept of the term "digitalization" by analyzing the position of Khorovits and Khill (1993), who had similar opinions on this issue, defining the term under study as a mechanism involving the transformation of an object into a "set of digital code". This process allows you to further record, copy, send, transmit converted objects using electronic media. At the same time, the authors contrast this position with the opinion of Suvorova (2019), who considers digitalization not just as the digitization of an object, but as the creation of digital goods and services with the cumulative transformation of processes.

Based on the opinion of Chausova et al. (2019), researchers Slozhenikin and Chausov (2020, p. 1175) single out the definition of "digitalization" as "the introduction and application of modern digital equipment in various processes".

Khomyakova (2019) defines the definition of "digitalization" as a process that aims to change processes, provided that digital technologies are actively introduced in social, economic, medical and other spheres of human life, while conceptually changing the approach to the use, storage and transmission of information.

The second aspect of the definition of the term "digitalization" is related to the field of law, within which, according to the Decree of the Government of Moscow dated 11.10.2010 N 2215-RP "On the Concept of providing residents of Moscow with telecommunication services to obtain socially significant information by creating conditions for equal access to cable television and Internet resources", the term "digitalization" defines "transition from an analogue form of information transmission to digital" (O Kontseptsii..., 2010, p. 2).

At the same time, Gaivoronskaya et al. (2019) in the article "Immodest charm of digitalization" emphasize that the concept of "digitalization" is used due to the imagination of the user of this term. The authors also identify two directions of defining the meaning of "digitalization" within the framework of its interaction with the law.

Firstly, it can be understood globally, not only as a new trend in the development of social processes but also as a new reality, a stage of evolution, a technological era that fundamentally transforms the production and distribution of social goods, social values, social structure, politics, law and culture. Secondly, digitalization can be considered as a tool for the implementation of various socially useful goals, offering more convenient and operational forms of providing information, participation in public relations, access to social benefits. (Gaivoronskaya et al., 2019, p. 43)

The third direction should be considered in the modern psychological and pedagogical field.

Danilova et al. (2020) in their research define the concept of "digitalization" from the position of Nikulina and Starichenko (2018), separating it from the term informatization, linking the latter concept related to "the introduction of computers into all spheres of human activity, called, in other words, computerization." At the same time, digitalization is designated as "a new era based on big data and relevant technologies that contribute to increasing the efficiency of production, its volumes, as a result – the successful implementation of an individual approach in any field of modern human activity." According to semantic and etymological analysis, the author defines digitalization as "the integration of digital technologies into a person's daily life." According to the results of the study, the authors conclude that in a narrow sense, the term "digitalization" means the digitization of data, and in a broad sense – "a strategy for integrating digital technologies into the daily life of society" (Danilova et al., 2020, p. 6).

The fourth sphere, containing approaches to the definition of "digitalization", refers to humanitarian and social studies.

Thus, Gaivoronskaya et al. (2019) distinguish three conceptual meanings of the term "digitalization", namely

1) transition from an analogue form of information transmission to a digital one; 2) digitization of information", the transfer of information to a digital format for subsequent storage, distribution and use; 3) a wide range of economic, managerial, social processes related to the use and widespread use of digital, computer, information, electronic and network (telecommunications) technologies, artificial intelligence systems in modern life.

Zagrebin and Serova (2020) in the framework of social sciences interpret the phenomenon of "digitalization" as a completely new social reality, which carries the gradual displacement of all analog objects, systems and processes in the economy, culture and everyday life of the individual.

It is also worth noting the research of Konkov (2020), who in his works, based on the reference of the American mathematician Nicholas Negroponte in the book "Being Digital" (1995), defines digitalization as "the translation into information form (reflection in bits) of the entire diversity of the material world (existing in atoms)" (p. 49).

In the social plane, Meshcheryakova and Rogotneva (2021) also note that the definition of the term "digitalization" has not been established in a generally accepted, final form. However, the authors analyzed the existing approaches to the concept - in the context of control theory and systems theory.

Thus, digitalization has acquired the characteristics of a system-activity process carried out in order to create a digital society and the subsequent progress of civilization, the transition of society from post-industrial to digital. In addition to analyzing various approaches to the definition of the concept of "digitalization", it is also advisable to highlight the main features and criteria of the definition under study.

According to Gadetsky and Koryakina (2020), Zagrebin and Serova (2020), it is advisable to include such characteristics:

- compliance of the digital transformation of the information field with individual requirements, such as coverage of production, business, science, social sphere, as well as everyday life of people;
- availability of conditions for the exceptionally effective use of the results of digitalization;
- accessibility of application for users of the results of the transformed information used not only by specialists, but also by citizens who do not specialize in the field of digital technologies, however, at the same time, it is important that these users have the necessary work skills.

At the same time, Larina (2020) highlights the collection, processing, storage and transmission of information as fundamental elements of digitalization. The goals, according to the author, include:

- the implementation of multidimensional tasks in a fairly short period of time;
- increased efficiency;
- the possibility of remote interaction of subjects.

According to Khomyakova (2019), digitalization, as a process, is aimed at improving the quality in certain areas (such as education or medicine) of human life - creating comfort and security, convenient use of digital services and other measures, as well as the involvement of the population in digital interaction.

Thus, based on the analysis of the above positions of researchers, as well as the criteria of the term "digitalization", the author of this work proposes the following definition of the definition under consideration: "digitalization is a process involving the creation, implementation and application of digital systems and technologies and (or) transformation of tools (objects, systems and technologies) of interaction between the state, society and man".

7. Conclusion

In conclusion, it is advisable to note the following. There is no doubt about the importance and role of digitalization of modern society in the life of both each individual and society as a whole, and therefore it is important to have an idea of the meaning of the term "digitalization".

Thus, according to the results of this study, the main goal has been achieved - the study of approaches to the definition of the term "digitalization", as well as the tasks set within the framework of this article: research, analysis and comparison of researchers' positions on the definition of the concept of "digitalization", the study of the features, criteria of the phenomenon under consideration, the proposal of the author's definition of this definition. The theoretical significance of the research is to improve the conceptual foundations of the theory of the conceptual apparatus in the field of digitalization, the practical

significance is aimed at the possibility of subsequent use in applied activities and in the framework of training courses.

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