THE SOCIAL ENVIRONMENT CHANGE UNDER THE INFLUENCE OF ARTIFICIAL INTELLIGENCE THE VIEWS OF ORTHODOX CLERGY AND PARISHIONERS

Mikhail Vasilievich Vinichenko[1*], Marina Vladimirovna Rybakova[2], Oxana Leonidovna Chulanova[3] and Sergey Anatolyevich Makushkin[1]

[1] Russian State Social University, Department of Personnel Management and Personnel Policy, st. Wilhelm Pieck, d. 4, p. 1, Moscow, 129226, Russia
[2] Lomonosov Moscow State University, Department of Sociology of Management, GSP-1, Leninskie Gory, Moscow, 119991, Russia
[3] Surgut State University, Department of State and Municipal Management, Lenin Ave. 1, Surgut, 628413, Russia

Abstract

The article examines the nature of changes in the social environment under the influence of artificial intelligence by revealing and analysing the views of Orthodox clergy and parishioners. It was characteristic that the opinions of most clergy and parishioners coincided in a negative attitude to the influence of artificial intelligence on the social environment. The high degree of dependence of social and cultural aspects of the development of society and human psyche on artificial intelligence causes anxiety and fear among clergy and parishioners. The essential negative influence of artificial intelligence on religious activity is revealed. The main advantage of this study is that the on-going social changes are evaluated from the point of view of representatives of the Orthodox faith, both clergy and parishioners. The revealed characteristic features and dependence can be used in the formation and development of the categorical-conceptual apparatus in the social and humanitarian scientific fields as the basis for the development and protection of existing values in the social sphere and religion.

Keywords: Orthodoxy, social, cultural activity, human, psyche

1. Introduction

Humanity, having entered the Fourth Industrial Revolution, has not yet managed to fully realize the advantages and risks that are associated with the ever wider use of information technologies and artificial intelligence (AI).

---

*E-mail: m.v.vinichenko@mail.ru

The digitization of society opens up opportunities for creating favourable conditions in professional activities [1; 2; European Commission, Digital Economy and Society Index Methodological Note. DESI, 2020], on improving the lives of elderly people with health limitations [3] and on more effective use of human potential [4, 5]. In the context of the pandemic, the search of ways to use AI for social distance communication [6, 7], to solve social welfare problems [8] becomes relevant. The positive effect is expected from the system digitalization of audit, development of a culture of innovation, improvement of management [9].

The development of social environment in the digital economy is based on the development of the person himself [10, 11], his potential, a well-functioning management system [12, 13].

The growing opportunities and practice of using AI is forcing psychologists to relate to the role and place of the human brain, the process of thinking. The flow of information from the Internet, the dominance of information technology, breaks the balance between faith and knowledge [14, 15]. At the same time, there is a danger for the human being to fall into the abyss of lies, which actively gets into the Internet and mass media. Fake news misleads people of different faiths, which is detrimental to supporters of all faiths. All this has a significant impact on the psyche of people [V. Wright and C. Wright, *Speaking of Psychology: Fake News and Why It Matters*, American Psychological Association, 2019, https://www.apa.org/research/action/speaking-of-psychology/fake-news, accessed on 27 June 2020].

This necessitates the creation of clearer ethical rules for the use of AI. Discussions are held at a very different level about the interaction of natural and artificial intelligence [16], security and ethics of attitude towards humans and AI [17, 18].

Discussions are on-going among religious leaders about the nature of the changes in the digital society. There are discussions about the role and place of man, his essence, his soul and AI. Approaches vary among different faiths. They differ not only between faiths, but also among members of the same religion [S. Musaddique, *How artificial intelligence is shaping religion in the 21st century*, CNBC, 2018, https://www.cnbc.com/2018/05/11/how-artificial-intelligence-is-shaping-religion-in-the-21st-century.html, accessed on 27 June 2020)].

Emerging theological disagreements, disputes between Orthodox theologians over various issues, including 'Russian sophiology', theological philosophical reflection, form the basis for a new approach to the problems of the universe in the context of the widespread use of AI [19]. The views of John Milbank are of some interest in this sense [20]. This is facilitated by reflection, controversy, and debate that lead to the search for truth by the evangelists [21].

Specialists in the conservation and restoration of temples [22] see the applied nature of the use of AI in the use of neuro-fuzzy network.

The issues of a relatively easy transition from one faith to another as a flexible way to union, unification of faiths are considered today through the prism of historical experience [23]. The Bulgarian experience of the transition

from Islam, Catholicism to Orthodoxy, the creation of a Bulgarian identity can serve as an example as a technology for the formation of a single national and confessional group, state formation. In this context, apostasy was the result of political loyalty and the consequence of personal interests, and not a change in purely religious principles. There is a search for common ground in Orthodoxy and Protestantism, Catholicism [24]. Historical options for the formation of consensus 'from below' are considered [25]. Under these conditions, AI can both contribute to and prevent the unification of faiths.

Despite the intensification of the discussion on the nature of the use of AI in various spheres of life, there is still not enough research to reveal the views and position of representatives of various faiths on social changes associated with the implementation of AI. The high demand against the background of the lack of systematic research to disclose the nature of changes in the social environment under the influence of artificial intelligence made it necessary to write this article.

2. Methodology

To identify the essence of social changes under the influence of AI from the perspective of the Orthodox inhabitants of Russia, a sociological study was conducted. The aim of the study was to determine the attitude of Orthodox clergy and parishioners to the nature of changes in the social environment under the influence of artificial intelligence. In order to achieve the goal of the study, the following scientific tasks were solved:
1. To identify the degree of dependence of socio-cultural aspects of the development of society and the human psyche on artificial intelligence.
2. To determine the nature of the influence of artificial intelligence on religious activity.

2.1. Hypothesis

The changes that have occurred in the social environment under the influence of AI are complex and controversial, the dynamics and prospects of which have not yet been fully studied by sociologists and representatives of the Orthodox Church and have certain differences in the attitude towards them on the part of clergy, churched members and unchurched parishioners.

The definition of churching is based on an index developed by the method of V. Chesnokova (as a quantitative characteristic that takes into account the importance of various aspects of church life, such as the rhythmicity of church visits, the frequency of communion, fasting, regular prayers and sacred texts [26]. There is no need to distinguish the quality of the groups that reflect the degree of churching: churched, semi-churched, beginner, unchurched, zero group. Two main qualitative groups of parishioners were used: churched and unchurched.

Churched parishioners in this study include people who clearly understand the purpose of Christian life, seek to live a Christian life, and regularly participate in worship services and church life. Unchurched members are considered to be baptized people who identify themselves as Orthodox Christians, but are religiously ignorant, often neglecting the worship and sacraments of the church.

A sociological study to identify the essence of social changes under the influence of AI from the perspective of the Orthodox inhabitants of Russia was carried out in February-March 2020 in Moscow. The choice of Moscow to achieve the goal of the study was based on the fact that Orthodoxy is the predominant confession in Russia and is one of the most important and influential centres of Orthodoxy. The study involved 51 clergymen and 337 parishioners aged 18 to 80 years. Information collection and analysis of data on parishioners was carried out separately for churched members (174 respondents) and unchurched members (163 respondents).

2.2. Methods

As methods were used: questionnaire survey of parishioners and clergy directly at the Orthodox churches, as well as using the Internet; in-depth semi-structured interviews with clergymen; content analysis; methods of statistical analysis. Likert method was used to identify the degree of confidence of respondents in their assessment of the proposed questions. To conduct a sociological survey, the author's version of the questionnaire was prepared. Before the main data collection, two experimental tests with the Orthodox population of another sample were conducted. Based on the comments and suggestions identified, the final version of the questionnaire, relevant for these categories of respondents, was created. During the sociological survey, all ethical standards were observed. All respondents were anonymous.

In the study, artificial intelligence (AI) was understood as intelligent computer programs, systems whose task is to recreate reasonable reasoning and actions. In practice, they could be an element of an intellectual system, a robot resembling a person and partially fulfilling his functions.

3. Results

3.1. Dependence of socio-cultural aspects and the human psyche on artificial intelligence

The study found that AI does not have a positive effect on the culture of society, a person, as supporters of digitalization of society and business would like (Figure 1).

All categories of respondents were unanimous in their opinion on the nature of the influence of AI on culture - they do not agree that AI positively affects the culture of society, of a person. Apparently, these judgments are

reasonable. Clerics often have to communicate with parishioners, who in everyday life come together with the powerful pressure of a foreign culture, often based on modern technology, AI. Its negative influence on culture is very worrying for the clergy of various religions [14, 18, 19].
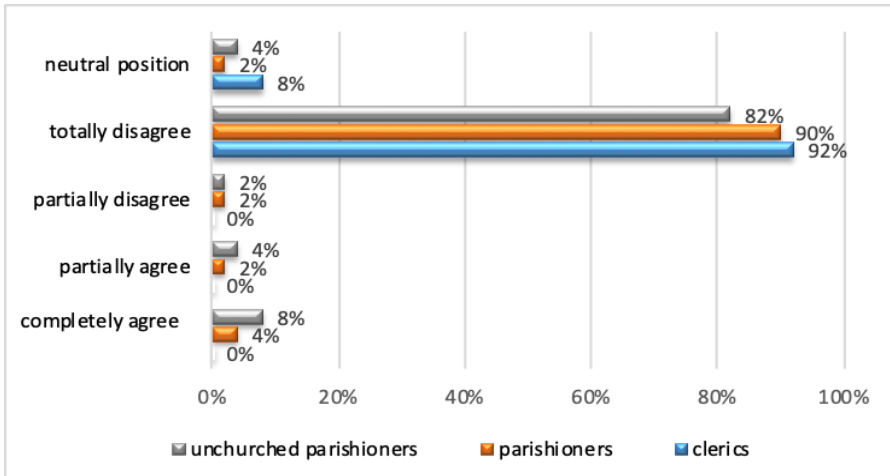
Figure 1. AI positively affects the culture of a society, a person.
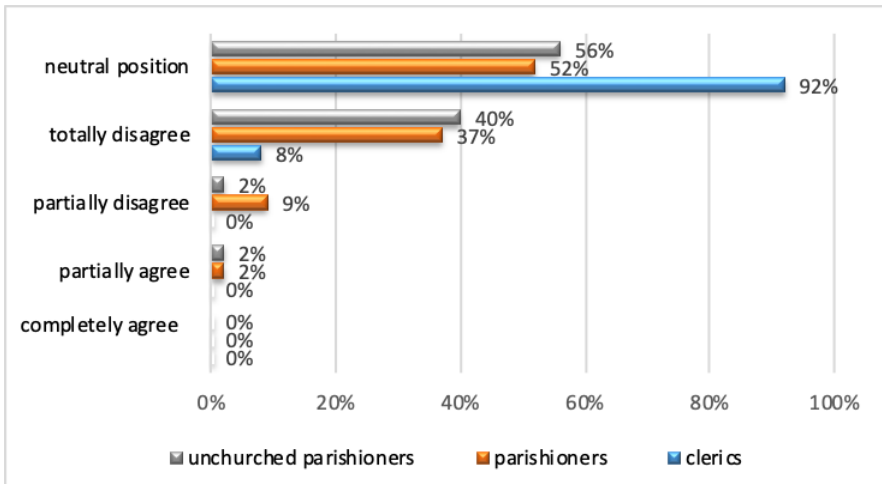
Figure 2. Do you agree with the positive effect of replacing the man Thomas Melle with a robot android on the stage in 'The Sinister Valley'?

They note that the media are actively involved in the implementation of ideas that corrode the morality recorded in the value system of many faiths. As a counteraction to the corrupting influence of foreign ideas, the leadership of the Russian Orthodox Church (ROC) found it possible and necessary to create their own television and other channels that attract the attention of both true believers and unchurched parishioners. Social networks are also used to convey their ideas and Orthodox morality to a wide range of people. Supporters of the positive

impact of AI on culture were most among the unchurched parishioners. Mainly it is the youth. They have supporters among scientists, asserting inconsistency of technological myths and fears about AI, created in 50-70 years of the last century [27].

The results of respondents' answers to the transformation of the essence of the cultural sector, such as stage art, were not quite expected. The replacement of the man Thomas Melle by an android robot on stage in the production of 'The Evil Valley' did not cause a storm of protests or negative emotions (Figure 2).

It should be noted that there were quite a few undecided respondents with a new phenomenon in stage art - the replacement of man by a robot. A particularly large percentage of those who found it difficult to answer was among the clerics - 92%. Along with this, quite a few respondents from among unchurched (40%) and churched parishioners (37%) expressed a clear negative position in using robots (AI) as a substitute for a person on the stage of the theater. Here, the stereotype that true art should cause internal empathy among the audience, reveal the soul, which is characteristic only of man, is triggered to a greater extent. Replacing it with a robot causes indignation by deception and substitution, a sense of disgust and the complete rejection of such art. They do not agree with the possibility of a transition to a new artificially invented way of life. To a certain extent, this coincides with the findings of du Toit Cornel [28]. Appearance of supercomputers, trans-man, and possible immortality raises a question before people about possibility to replace traditional religion with technology. Orthodox respondents overwhelmingly deny even the possibility of such a scenario of human development. The replacement of the spiritual with artificial will lead to moral poverty.

All categories of respondents were unanimous in their opinion about the nature of AI's influence on human psyche (Figure 3). At the same time, the clergy showed an absolute result, confidently stating that AI negatively affects the human psyche.

The experience of people with robots in the last decade has shown a significant impact of AI on the human psyche. This especially affects the behaviour of young people, who are very dependent on electronic devices using the Internet, fragmented AI, social networks, and modern information technologies [29]. In the digital economy, a transformation is taking place in the human value system. An additional participant in social communication appears in it, this participant is not a society - a robot or AI. This introduces an imbalance of forces, damage to the person's internal psychological stability [14]. In conditions when science seeks to replace religion, an Orthodox person is offered the option of distinguishing good from evil, stigmatizing some departure from Orthodox values.

However, just young people are more likely to be positive about the use of AI in professional activities and personal life [30].

3.2. The nature of the influence of artificial intelligence on religious activities

The opinion of Orthodox respondents regarding the usefulness of AI in religious matters was interesting (Figure 4).
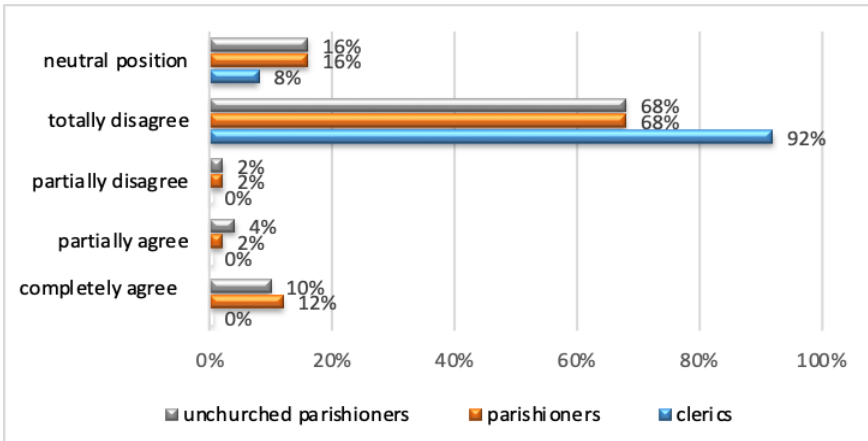
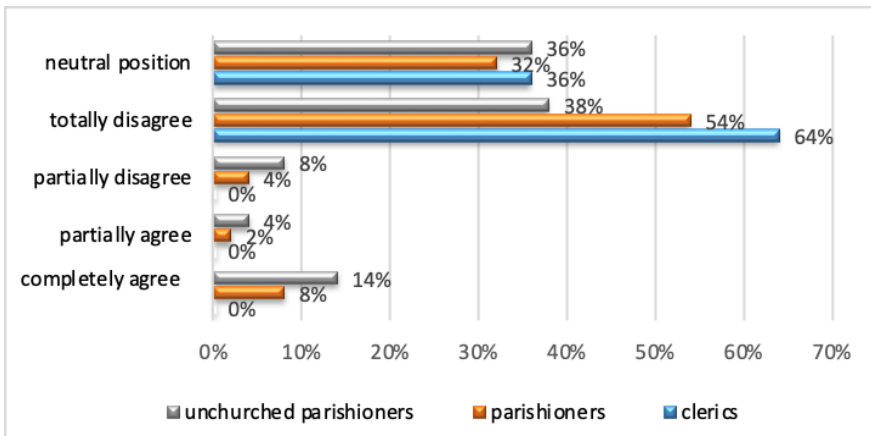**Figure 4**. Artificial intelligence is useful in religious matters.

Figure 5. Artificial intelligence will unite different faiths.

This question did not cause controversy - all respondents spoke in favour of the inappropriateness of using AI in religious matters. The opinion of clergymen was especially radical (92%). In second place was a neutral position in relation to the usefulness of AI in religious affairs. The number of unchurched and churched parishioners was 16%. A small part of the respondents from among unchurched and churched parishioners (10-12%) considers it possible to use AI in religious matters. Mainly young people actively use the achievements of modern civilization, the digital economy and AI elements. They see some of their own, new ways of using AI, which will help Orthodox people.

In general, respondents expressed a negative opinion or an unstable position towards the unification of various faiths under the influence of AI (38-64%) (Figure 5).

The clerics were more disagreeable (64%). This part of the clergy clearly adheres to the canons of the Orthodox faith and does not foresee any changes in this matter in the nearest future. This is the backbone of the Orthodox Church. The proportion of respondents who took a neutral position in all the studied groups of respondents is high (32-36%). The civilizational changes leading to the globalization of the world are reflected here. Some Orthodox to some extent allow the possibility of using AI for uniting on some issues of ideology, values of different confessions. They agreed that AI would lead to the unification of different confessions, mainly young people. More of them were among unchurched parishioners (14%).

The opinion of all respondents on the possibility of replacing a person in religion was almost unambiguous (Figure 6).
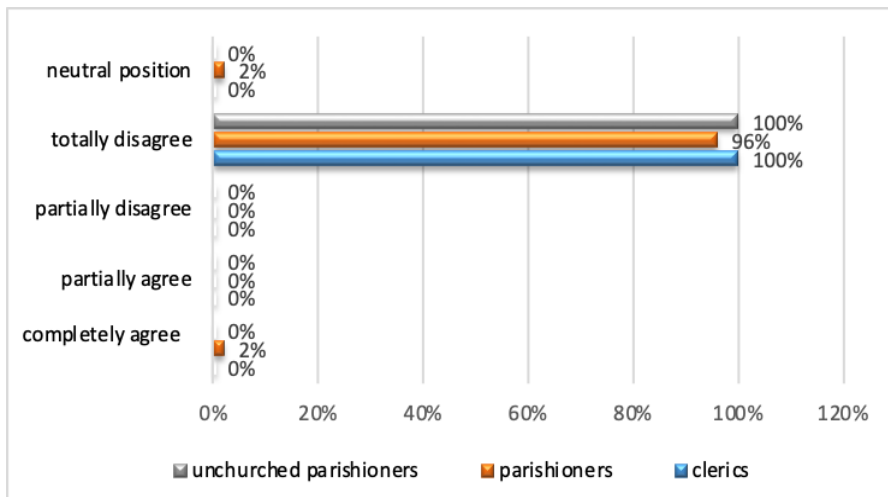
Figure 6. Artificial intelligence will replace a person in religion.

They consider it impossible to replace a person in such an important matter as the spiritual. Orthodox people do not even allow the idea that you can communicate and trust the AI with your thoughts, hopes, aspirations, problems. There is a clear separation of concepts, and no one is allowed into the spiritual realm. To each his own: "... Render unto Caesar the things which are Caesar's, and unto God the things that are God's" (Luke 20.20-25).

4. Discussion

As the study showed, Orthodox respondents believe that AI has a significant impact on the cultural development of society, on the human psyche. Moreover, the assessment of its influence is mostly negative. This applies to both clergymen and parishioners - those who are churched and unchurched. The

high degree of dependence of socio-cultural aspects of the development of society and the human psyche on artificial intelligence is alarming among clergy and parishioners. It should be noted that not everyone understands clearly in what form AI is most dangerous for the cultural development of society. A large number of respondents could not give a clear assessment of replacing a person with an android robot on the stage of the theatre. The position of the undetermined clerics was especially surprising. They were an overwhelming majority. There may be several reasons. First, most likely, these people did not see the theatrical production of the 'Sinister Valley', so they could not or did not consider it possible to evaluate the event, because they were not the participants of it. This is inherent in this category of respondents. Secondly, they are not ready to accept or reject such a form of stage art at once. Hasty decisions are not in their rules, too. Third, the position of the leadership of the Orthodox Church towards to this phenomenon is still being formed, which may also confuse the clergy in a personal assessment of the replacement of Thomas Melle with an android robot on the stage of the theater in the production of 'The Sinister Valley'. Nevertheless, representatives of the Orthodox Church at different levels are engaged in discussions on the use of AI and the risks associated with it.

AI has a negative effect on the human psyche. An overwhelming number of Orthodox respondents in all categories noted this. These results coincide with concerns expressed back in 1970 by Alvin Toffler. In his 'Future Shock', he described the complex psychological state of individuals and even societies as early as the last century due to rapid, profound changes [31].

In today's society, respondents' views are influenced by the AI's experience of irritating action, which keeps them in constant tension and fear at virtually all stages of their professional and personal lives. This is an opportunity to replace a person with a robot and a rapid rise in unemployment. Jackson Barry points out the need to activate philosophers, psychologists, and sociologists in a timely description of the on-going transformation in traditional ethics, religion, morality, and social interaction [32].

Massive migration processes due to the displacement of people from the labour market can lead to chaos.

In general, the influence of AI on religious activity, according to Orthodox respondents, can be described as significantly negative. In the negative field of estimations on the part of clergy, unchurched and churched parishioners the question on replacement of human with AI in religion appeared. The unanimity in this case is explained in the distrust of the intellect artificially created by man in comparison with the Divine. Orthodoxy, like other religions, considers the spiritual essence of man, while it is not given to AI. At least at the present level of development of science and technology Orthodox do not allow the idea to equate these concepts, especially to replace natural with artificial ones. The church helps those who seek to know the meaning of their lives, which AI cannot do. This correlates with the findings of Nadin Mihai, who argues that AI can only mimic the creative, spiritual aspects of life and cannot replace them. Machine theology is unacceptable [33]. With these findings, the

opinion of Alva, Reginald, who investigated the problems of the Catholic Church, is based on the documents of the Second Vatican Council. Scientists are of the opinion that it is impossible to replace the religious mission of AI [34]. The Holy Spirit, not AI, is the main character in the life of believers, the church.

In addition to a negative assessment, respondents with a neutral position on the usefulness of AI in religious affairs, and especially on the possibility of using AI to unite different faiths, proved to be characteristic. Apparently, the established among Orthodox tolerance to other confessions, peoples, traditions will allow reflecting on the possibility of uniting believers of different confessions in some form. These results correlate with research on religious tolerance, the debate on symbols of faith and their role in the search for Orthodoxy, and freedom of conscience [35].

This fully applies to clergymen who have contacts with representatives of other faiths and consider it possible to combine efforts more in the procedural sphere than in the conceptual one. Some of them allow the idea of uniting faiths under the patronage of Orthodoxy, based on historical experience [23]. A small portion of unchurched and churched parishioners supported the usefulness of AI in religious affairs. Mainly young people constantly use the achievements of civilization in their professional activities and personal lives. They see ways to use AI in promoting the ideas of Orthodoxy.

5. Conclusions

In the course of research about the nature of changes in the social environment under the influence of artificial intelligence, certain features and peculiarities of the views of Orthodox Russians were revealed. A general coincidence of opinions of clergy and parishioners in a negative attitude to AI in the social environment turned out to be a characteristic. The high dependence of social and cultural aspects of the development of society and human psyche on artificial intelligence was revealed.

First of all, it concerns the cultural development of society and the human psyche. Clerics and parishioners believe that the social and cultural development of society is increasingly dependent on AI.

A significant negative impact of AI on religious activity was revealed. It concerns also utility of its application in religious affairs, replacement of the person in religion, to association of various confessions. Thus, it is necessary to note, that the greatest deviation turned out in answers of respondents on use of AI in association of various confessions. All respondents were unanimous in their opinion on the question of replacing a person in a religion. Spiritual values belong to a person and no one can replace him/her.

In general, the hypothesis was confirmed - the changes which took place in the social environment under the influence of AI are complex and controversial, the dynamics and prospects of which have not yet been fully studied by sociologists and representatives of the Orthodox Church and have certain differences in attitude to them on the part of clergy, churched and

unchurched parishioners. Nevertheless, it turned out that on a number of issues the opinions of clergy, unchurched and churched parishioners coincided, which is a deviation from the formulated hypothesis of the study.

References

[1] ***, *Digital economy report 2019: Value creation and capture: implications for developing countries*, United Nations Publications, New York, 2019, online at https://unctad.org/en/PublicationsLibrary/der2019_en.pdf.

[2] M. Jovanoviˊc, J. Dlaˇciˊc and M. Okanoviˊc, *How Does the Digitalization Impact Society's Sustainable Development? Measures and Implications*, Proc. of International Scientific Conference Economics of Digital Transformation (EDT) 2018 DIGITOMICS, University of Rijeka, Rijeka, 2018, 1-14.

[3] P. Anderberg, The ACM Magazine for Students, **26(3)** (2020) 46-49.

[4] E.V. Frolova, N.V. Medvedeva, E.E. Kabanova, S.N. Kurbakova and M.V. Vinichenko, Journal of Advanced Research in Law and Economics, **7(2)** (2016) 221-228.

[5] M.V. Vinichenko, O.L. Chulanova, A.V. Kirillov, D.A. Korosteleva and Y.A. Melnichuk, Revista Espacios, **39(48)** (2018) 33, online at http://www.revista espacios.com/a18v39n48/18394833.html.

[6] D. Wang, S. Fang and H. Fu, Advances in Civil Engineering, **2019** (2019) 1-12, online at https://doi.org/10.1155/2019/4850921.

[7] A.M. Abubakar, E. Behravesh, H. Rezapouraghdam and S.B. Yildiz, Int. J. Inform. Manage., **49** (2019) 45-57.

[8] E.N. Sochneva, I.S. Bagdasarian, G.Y. Belyakova and T.N. Yamskikh, *Comparative analysis of social welfare in Russia and foreign countries*, The European proceedings of social & behavioural sciences international conference, National Research Tomsk Polytechnic University, Tomsk, 2017, 935-941.

[9] R. Manita, N. Elommal, P. Baudier and L. Hikkerova, Technological Forecasting and Social Change, **150**(C) (2020) 119751.

[10] O. Ossmy, R.O. Gilmore and K.E. Adolph, *AutoViDev: A Computer-Vision Framework to Enhance and Accelerate Research in Human Development*, Proc. of the 2019 Computer Vision Conference CVC, Springer Verlag, Switzerland, 2019, 147-156.

[11] M. Garnelo and M. Shanahan, Current Opinion in Behavioral Sciences, **29** (2019) 17-23.

[12] Y. Duan, J.S. Edwards and Y.K. Dwivedi, Int. J. Inform. Manage.,, **48** (2019) 63-71.

[13] A.V. Kirillov, D.S. Ushakov, M.V. Vinichenko, S.A. Makuchkin and A.V. Melnichuk, Eurasian Journal of Analytical Chemistry, **12(5b)** (2017) 723-733.

[14] A. Zanotti, AIB Studi, **58(3)** (2018) 439-453.

[15] C. Deacy and E. Arweck, *Exploring religion and the Sacred in Media Age*, MPG Books Ltd, Bodmin, 2009, 280.

[16] R. Sun, AI & SOCIETY: Journal of Knowledge, Culture and Communication, **35(1)** (2020) 17–28.

[17] A. Turchin, AI & SOCIETY: Journal of Knowledge, Culture and Communication, **35(1)** (2020) 147-163.

[18] S.D. Baum, AI & SOCIETY: Journal of Knowledge, Culture and Communication, **35(1)** 165-176.

[19] R. May, Scot. J. Theology, **73(1)** (2020) 55-71.

[20] J. Milbank, *Theology and Social Theory: Beyond Secular Reason*, Wiley, Hoboken (NJ), 2008, 448, online at http://onlinelibrary.wiley.com/book/10.1002/978047069 4121.

[21] R.G. Brown, Expository Times, **131(6)** (2020) 257-261.

[22] L.F. Bubuianu and R. Diaconescu, Eur. J. Sci. Theol., **5(2)** (2009) 37-55.

[23] M. Celik, J. Relig. Hist., **44(1)** (2020) 103-124.

[24] D. Prokofyeva, J. Study Relig. Ideol., **19(55)** (2020) 158-172.

[25] J.M. White, Russ. Rev., **79(2)** (2020) 185-203.

[26] V.F. Chesnokova, *Close way: the process of churching the Russian population at the end of the 20th century*, Academic Project, Moscow, 2005, 297.

[27] S. Natale and A. Ballatore, Convergence - The International Journal of Research into New Media Technologies, **26(1)** (2020) 3-18.

[28] C.W. Toit, HTS Teologiese Studies - Theological Studies, **75(1)** (2019) a5311.

[29] M.V. Vinichenko, P. Karácsony, T.S. Demchenko, I.Y. Ilina and S.A. Makuchkin, Eurasian Journal of Analytical Chemistry, **12(7b)** (2017) 1069-1077.

[30] G. Nikiporets-Takigawa, Sovremennaya Evropa, **1(80)** (2018) 47-58.

[31] A. Toffler, *Future Shock*, Random House, New York, 1970, 528.

[32] B.L. Jackson, Postmodern Openings, **10(3)** (2019) 102-116.

[33] M. Nadin, AI & Society, **34(2)** (2019) 215-242.

[34] R. Alva, International Review of Mission, **108(1)** (2019) 164-177.

[35] C. Maurer and G. Gellera, Global Intellectual History, **5(2)** (2020) 125-136.