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| Main Trends of Digitization in UNESCO's Strategy |

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MAIN TRENDS OF DIGITIZATION IN UNESCO'S STRATEGY

Digital issues form an essential dimension of cultural, educational, and scientific strategy of UNESCO, which has been elaborated in a number of strategic and normative documents, issued by this international organization, that are currently in the process of being revised and supplemented, in order to withstand novel global challenges and threats, which is especially the case of the COVID-19 pandemic. The main trend in the elaboration and implementation of this dimension consists in imbuing digitization by the lofty ideals of UNESCO, especially those concerning the basic human rights, and in converting digital divides into digital inclusions, by means of providing equal, just, and affordable access to the digital realm and the cyberspace. This trend was traced back by us basing upon the analysis of a number of documents, starting from UNESCO Universal Declaration on Cultural Diversity (2001), and ending with UNESCO 2014–2021 Medium-Term Strategy (mostly Strategic Objective 9), which is now subject to being reviewed and continued by a next 8-year Strategy. The second main trend consists in a focus upon preservation of digital heritage, which was acknowledged by UNESCO as 'a new legacy', being no less important than the older (analogue) one. Digital heritage basically consists of two kinds of objects, the first one of which comprises those converted into digital form from existing analogue resources, while the second one

includes objects created ('born') digitally. The latter are granted priority, if all the other conditions are equal. Metadata are recommended by UNESCO to be included into the lists of digital heritage; as to the software, its status in the realm of digital heritage remains an actual matter of discussion. This trend was traced back basing upon such essential documents, issued by UNESCO, as Memory of the World in the Digital Age: Digitization and Preservation Declaration (2012), Appendix 6 (2015) to the UNESCO Memory of the World Programme, and Recommendation Concerning the Preservation of, and Access to, Documentary Heritage, including in Digital Form (2015). Implementation of principles of governance and self-governance of the digital community, and well as of the societal control over its activities (comprising primarily ethical governance and the technological one), especially its compliance with UN Sustainable Development Goals, form the third main trend. Materials of the recent High-Level Panel, devoted to the implementation of the UN Secretary-General's Roadmap on Digital Cooperation (2020), especially the intervention of UNESCO Director General, Ms. A. Azoulay, were analyzed in order to trace back this trend, as well those issued in the framework of the Digital UNESCO Campus (2020).

Key words: digitization, strategic issues, UNESCO.

Digitization forms an integral part of the cultural, scientific, and educational strategies of UNESCO. Objective of the present paper consists in reviewing its theoretical founda-

tions and principles, mostly basing upon the official documents, issued by this international organization, and in detecting basic trends in its elaboration and implementation.



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Present-day approach to digitization may be traced back to as early as 2001, when UNESCO Universal Declaration on Cultural Diversity was issued¹. Studying the text, we may see that digitization is regarded by its authors as a set of technologies which may either aggravate the existing problems or, to provide new means to resolve them, or both. According to this, emergence of 'digital divide' was pointed out in the text of Annex II:11 to the aforementioned document, consisting in prolongation of inequality already present in the world, to the digital realm. This challenge was particularly dangerous in the case of 'developing countries', due to a set of obvious causes. However the challenge existed already at that time at the level of the developed countries, as well.

Creative performance, along with the 'scientific and technological' ones, was presented in the text of Article 6 of the Universal Declaration as realms where digitization should be regarded as mostly positive. Formulating this thesis of ours, we feel authorized to mention that the text of Article 6 was worded in the peculiar way which could allow us to include into the list of these realms several other notions, notably 'freedom of expression, media pluralism', and 'multilingualism'. In both cases, that is, in the case of the 'narrow' definition or, the 'wider' one, digitization was regarded by UNESCO as a fairly neutral form, which was able rather to modify present-day trends, than to form novel ones. Hence the term 'digital form', used in the text of Article 6 of the Declaration.

As a result, basic approaches and methodologies of UNESCO, which had been elaborated in

¹ UNESCO Universal Declaration on Cultural Diversity. URL: http://portal.unesco.org/en/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html, accessed 15.10.2020. As to the term 'digitization', it was coined by N.Negroponte about 25 years ago: Negroponte, N. (1995). Being digital. Knopf. ISBN 0 340 64525 3.

the framework of older trends, were to be applied in the framework of a new, digital one. In practical terms, it was primarily the triad of *standard-setting – awareness raising – capacity-building*; in the conceptual one, it was the elaboration and implication of principles of *inclusivity – implementation of cultural rights – creativity*, contributing in their turn to the success of the policy of cultural pluralism, which has served as basic for the activities of UNESCO, in general terms.

Two aspects of digitization were cited in the text of Annex II:9 of the Universal Declaration², one of which consisted in serving as an 'educational discipline' (or, rather, a set of such disciplines), another one – as a set of 'pedagogical tools capable of enhancing the effectiveness of educational services'. In this case, the Declaration obviously described basic topics, which formed part of the educational activities, which was marked by another term, namely, 'digital literacy', which was applied in the text of the Annex as means of summing up the essence of these two basic modes. However this trend could easily be exported into the frameworks of both culture and science, which were of no less value for the strategy of UNESCO as a whole.

The aforementioned formulations, which were as a matter of fact quite constructive and timely, were not elaborated in the framework of the Convention on the Protection and Promotion of the Diversity of Cultural Expressions, which was approved in 2005². However we find them in the texts of a number of other documents, prepared simultaneously and, in some cases, issued even earlier, in the framework of UNESCO. We mean here primar-

² Convention on the protection and promotion of the diversity of cultural expressions // URL: http://portal.unesco.org/en/ev.php-URL_ID=31038&URL_DO=DO_TOPIC&URL_SECTION=201.html, (accessed 15.10.2020).



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ily the Charter on the Preservation of Digital Heritage, approved by the General Conference of UNESCO in the Autumn of 2003³.

As formulated at the preamble to the main text of the Charter, its main objective consisted in setting standards and defining priorities in the new field, roughly determined by its authors as 'a new legacy – the digital heritage'. The purport of this formulation would have seemed somewhat obscure, if one would not take into account another document which has been quite important for UNESCO since 1995, when its basic text was approved by UNESCO. We mean here, of course, General Guidelines of the Memory of the World Programme⁴.

The Programme was dedicated to the most urgent issues of protection of documentary archives, which had been created in the course of the earlier development of humanity. This kind of legacy was defined in the basic text of the Programme as 'archival heritage' (see Introduction, 1.1.1). This complex term was introduced in the aforementioned part of the Programme, basing upon an earlier document, approved by the General Conference of UNESCO in 1991, which primarily defined the corresponding directions of the updating of national legislations. We find it thus absolutely correct that the authors of the preamble to the main text of the Charter on the Preservation of Digital Heritage stated its basic continuity with the Memory of the World Programme (Information for All Programme served as another important source of the Charter, which would be discussed below in more details).

³ Charter on the preservation of digital heritage. URL: http://portal.unesco.org/en/ev.php-URL_ID=17721&URL_DO=DO_TOPIC&URL_SECTION=201.html, (accessed 15.10.2020).

⁴ For an updated (2017) version of the text, cf. Memory of the World Programme. General guidelines. URL: https://en.unesco.org/sites/default/files/mow_draft_guidelines_approved_1217.pdf, (accessed 15.10.2020).

As formulated in Article 1 of the Charter on the Preservation of Digital Heritage, which got an additional title 'The Digital Heritage as a Common Heritage' (along with the following Article 2), that is quite essential for us, as linked to the fact that UNESCO kept emphasizing from the very beginning of the systematic elaboration of the 'archival heritage' that ensuring access to it formed a task which was no less important than that of preserving it, 'the digital heritage consists of unique resources of human knowledge and expression. It embraces cultural, educational, scientific and administrative resources, as well as technical, legal, medical and other kinds of information *created digitally*, or converted into digital form from existing analogue resources'.

The word combination marked by us in the citation by italics, introduced a notion which has been quite important for UNESCO since then. In the next sentence of Article 1, it was expressed by a slightly different in lexical terms, although quite synonymous term, namely 'born digital', which has been used quite often in documents issued by UNESCO. The latter term cited by us might in fact serve as an object of lexicographic study, as its creators preferred not to apply in this case the term 'generated', which was by that time quite in vogue in the framework of theoretical linguistics, especially the generative one⁵.

⁵ For an overview of present-day strategies in preservation of digital heritage, see: MacDonald, L. (Eds.). (2018). *Digital techniques for documenting and preserving cultural heritage*. Arc Humanities Press. <https://doi.org/10.2307/j.ctt1xp3w16>; Лопатина, Н.В., & Неретин, О.П. Сохранение цифрового культурного наследия в едином электронном пространстве знаний. / Н.В. Лопатина, О.П. Неретин // Вестник МГУКИ. – 2018. – №5 (85). – С.74–80. (Lopatina, N.V. & Neretin O.P. Sokhranenie tsifrovogo kul'turnogo nasledia v edinom elektronnom prostranstve znaniia v edinom elektronnom prostranstve znaniia (Digital cultural legacy safeguarding in common electronic knowledge space). / N.V. Lopatina,



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This kind of the digital archives should be definitely given priority, as clearly stated in Article 7 of the Charter. As to the 'digital form', the Charter defined 'texts, databases, still and moving images, audio, graphics, software and web pages, among a wide and growing range of formats' as its main part, as stated in Article 1.

'Preservation strategies' form the focal topic of the Charter. As pointed out in Article 3, responsible institutions of the UNESCO member states have decidedly failed to live up to the mark, which may be due both due to the fact that of the high costs of activities of this kind, and to exceptionally vivid progress of the digital realm: 'Attitudinal change has fallen behind technological change. Digital evolution has been too rapid and costly for governments and institutions to develop timely and informed preservation strategies. The threat to the economic, social, intellectual and cultural potential of the heritage – the building blocks of the future – has not been fully grasped'.

Detection and appointment of the organizations and institutions which would be authorized to collect, preserve, and provide access to digital heritage, as well as to elaborate norms and standards being necessary for the effective implementation of these tasks, form the main part of the 'preservation strategies'. The list of organizations and institutions of this kind included primarily 'libraries, archives, museums and other public repositories', as stated in Article 8 of the Charter on the Preservation of Digital Heritage. This list was supplemented in Article 10 by other 'agencies to take coordinating responsibility for the preservation of the digital heritage', and expanded by including 'universities and other research organizations, both public and private', into the list. As a result, one may state that

O.P. Neretin // Vestnik MGUKI. – 2018. – No.5 (85). – P.74–80).

UNESCO, acting in the framework of its mandate, including, as we know, elaboration of science, education, and culture, foresaw and planned the formation of specific institutions and organizations in each of these realms, which would be dedicated to the preservation of the digital heritage, forming an integral part of the national heritage as a whole.

Standards and norms of the preservation of digital heritage are to be elaborated and formed in accordance with the basic principles and attitudes of UNESCO by its member states, acting on their own. Due to this principle, the result of standard setting and legislative activities of this kind, were defined by the Charter as '*national* preservation policy' (italics introduced by us – D.S.). As to the aforementioned principles and attitudes, several basic items were recommended by the charter to be included into their list, notably:

- significant and 'lasting cultural, scientific, evidential or other value' (introductory segment of Article 7),

- open and accountable process of selection of heritage items (concluding part of the same Article 7),

- continuity of the preservation of digital heritage (this notion consists primarily in including the whole 'life cycle' of digital information, 'from creation to access' for all those concerned, into the process of preservation (Article 5). Correct forming of the list of the list of persons authorized to get access to digital heritage was defined as a specific task by the Charter. Judging by the text of Article 2, all members of the given society or community (roughly defined in the introductory sentence of the article as 'the public') are authorized to get free access to the digital heritage. The text of Article 9 broadened this notion to practically all humans: 'It (the digital heritage – D.S.) is culture-specific, but potentially accessible to every



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person in the world' (italics introduced by us – D.S.).

Having grown up primarily out of the focal issues of Memory of the World Programme, the Charter on the Preservation of Digital Heritage proved to be highly constructive. Soon it started to influence the aforementioned Programme in quite an impressive way. We are speaking here primarily about Appendix 6 to the UNESCO Memory of the World Programme, which became its integral part as late as 2015, and has formed since that time a focal issue of a number of expert discussions conducted in the framework of this international organization. Appendix 6 was entitled 'Nominating Digital Documents for Inscription'. Prescription of normative procedures for nomination of objects of digital heritage to be included into the list of heritage formed thus the main topic of the Appendix 6. However a number of notions serving as keynote for the theory of digital heritage were elaborated in its text in a most constructive way⁶.

Full text of Appendix 6 was published about 5 years ago, and has since that time quite available for study and discussion. One has to admit that its general purport is quite complicated, and somewhat contradictory in some aspects. As a result, detailed analysis of this text forms object of a special paper. We feel that it would be timely however to single out some of the innovations contained in the text, which have proven to be most fruitful. One of them consisted in acknowledging the fact that metadata formed an integral part of the digital heritage. As it was pointed out in a special part of the Appendix 6, entitled 'Metadata', a book may be easily taken from a shelf and read, without paying attention to catalogue indices and other pro-

fessional information, while a digital document was unlikely to be retrieved and regarded without a set of 'bibliographical, technical, administrative and structural metadata, together with representation information, preservation description information and packaging information'. Innovative steps of this kind should be regarded as highly constructive and timely⁷.

Division of digital heritage into 'fixed born digital objects', and 'dynamic born digital' ones, which was conducted in the text of a special part of the Appendix 6, entitled 'Categories of Digital Materials', may serve as an example of another fruitful innovation.

Software formed a topic of discussion in the framework of the Memory of the World Programme. As it was duly pointed out in the text of Appendix 6, including it into the list of digital heritage could be regarded in some aspects as reasonable and expedient. It is well known that the corresponding innovation was in fact undertaken by a group of UNESCO experts who tentatively included it into the list of objects of cultural heritage, cited in Article 1 of the Charter on the Preservation of Digital Heritage. The corresponding sentence, which was already cited by us in the preceding text of this paper, cited 'texts, databases, still and moving images, audio, graphics, *software* and web pages, among a wide and growing range of formats' as the main constitutive parts of the list of cultural heritage (italics introduced by us – D.S.).

There is no doubt that software does not form part of contents. It forms obviously a part of the means of expression. Stating this fact, authors of the Appendix stressed that it should not be re-

⁶ Memory of the World Programme. General guidelines. URL: https://en.unesco.org/sites/default/files/mow_draft_guidelines_approved_1217.pdf, (accessed 15.10.2020).

⁷ Lee, K.-H., Slattery, O., Lu, R., Tang, X., & McCrary, V. (2002). The state of the art and practice in digital preservation. *Journal of Research of the National Institute of Standards and Technology*, 107 (1), 93–106. doi: 10.6028/jres.107.010.



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garded as an excuse for not including software into the list of cultural heritage. The Gutenberg Bible was cited in the Appendix 6 as a demonstrative example: it definitely formed part of the cultural legacy of humanity, 'not because of its text, but as the manifestation of a new technique'. The example was absolutely sound. However including software into the list of cultural heritage has remained a topic of discussion up to this time.

Authors of the Appendix 6 acknowledged the fact that arguments of this kind are worth being taken into account. At the same UNESCO traditionally requires that an object appointed to be included into a list of preservation is to have 'documentary manifestation'. There is no doubt that software has a definite form of manifestation, e.g. the text of a computer program. However the form of this kind tends to be so different from other forms of documentary manifestation that corresponding normative documents should somehow be accommodated to it. The introduction of software into the lists of cultural or scientific heritage, or both, forms still a matter of quite active discussion⁸.

Concluding our brief review of focal points of the the Charter on the Preservation of Digital Heritage, we feel authorized to mention that the Charter was as a matter of fact inwardly linked to some pivotal ideas of another UNESCO program, entitled 'Information for All', which was definitely essential for the strategy of this international organization, as well; this fact was already mentioned by us in the preceding text of the present paper. Basic topics of the Program were elaborated by the year 2001. They have been reviewed and supplemented since that time quite often by representatives of the

member states. The main objective of the Program was defined as 'to harness the new opportunities of the information age to create equitable societies through better access to information'⁹. As to its six priority goals, the formulation of the second one consists in 'promoting and widening access to information through digitization and preservation'¹⁰.

A number of steps directed at the implementation of the principles cited above, were taken in the framework of the activities of UNESCO. Final text of The Moscow Declaration on Digital Information Preservation, which was approved as a result an International Conference 'Preservation of Digital Information in the Information Society: Problems and Prospects', conducted in Moscow, Russian Federation, in October, 2011, may be cited as a plausible example. Reading the text of the aforementioned document, one has to state that the objective of elaborating 'philosophy of long-term preservation of digital information', and of the corresponding 'regulatory legal basis and efficient policies', as well the corresponding infrastructure, were perceived and worded by UNESCO in an absolutely clear and unequivocal way¹¹.

Having done this, UNESCO experts found it appropriate to state that, unlike the situation in analogue data storage, the majority of the member states had not yet formulated the corresponding concepts, albeit implemented them on a national-wide level. The majority of the participants of the

⁹ The formulation cited by us forms part of a chapter of the Programme, entitled 'What is IFAP?', cf. URL: <https://unesdoc.unesco.org/ark:/48223/pf0000259991>, p.3 (accessed 15.10.2020).

¹⁰ This formulation may be found in the text of another chapter of the document cited above, entitled 'IFAP Objectives', loco citato.

¹¹ The Moscow Declaration on Digital Information. URL: http://www.ifapcom.ru/files/News/Images/2011/Moscow_Declaration_on_DP.pdf, (accessed 15.10.2020).

⁸ For wider context, cf.: Berry, D. (2016). *The philosophy of software*. Springer. URL: <http://doi.org/10.1057/9780230306479>, (accessed 15.10.2020).



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Conference expressed their opinion that this situation was mainly due to the fact that digital heritage gave birth to a range of highly sophisticated and complex problems. One feels authorized to state that there has not occurred a principal breakthrough in this realm since the time of the Moscow Declaration.

One has to admit that the main focus of the UNESCO 'Information for All' Program belongs mostly to the realms of social activism and information politics, which are more or less external to the main core of digitization. This attitude may be clearly seen, basing on the analysis of the official documents issued by national committees of the Program¹². As a result, we would resume here our analysis of the main goals of the 'Information for All' Program, and pass on to official documents which would be more constructive for our topic.

The next document which would attract our attention, was approved by the General Conference of UNESCO in 2003, It is entitled 'Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace'¹³. The document has not gained any considerable interest by the international scientific audience, albeit general public. However a number of quite constructive and timely ideas had been included into its text by UNESCO experts, which were primarily related to the understanding of cyberspace, which is in its turn intimately linked to that of the digitization. Appendix (c) to the main text of the Recom-

mendation defined this essential notion as 'the virtual world for digital or electronic communication associated with the global information infrastructure'.

Studying the text of the Appendix, we may note that the definition cited above was in fact directly continued in the item (m), where the universal access to cyberspace, which formed, as we know, the main topic of the Recommendation, was defined in strict terms. As stated in Appendix (m), 'universal access to cyberspace is equitable and affordable access by all citizens to information infrastructure (notably to the Internet) and to information and knowledge essential to collective and individual human development'.

Basing upon the two definitions cited above, one has to interpret the cyberspace as a realm - or, rather, a service (this term was used in abundance in the text of the 'Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace') in relevant contexts – providing support for the implementation of basic societal interests (or, rather, 'a service of public interest', as stated in an important chapter of the main text¹⁴, especially in the socio-economic and political context of developing countries. The corresponding step was taken in the main text of the Recommendation, namely in chapter 7, where member states and international organizations were encouraged to 'promote access to the Internet as a service of public interest through the adoption of appropriate policies in order to enhance the process of empowering citizenship and civil society, and by encouraging proper implementation of, and support to, such policies in developing countries, with due consideration of the needs of rural communities'. The preamble to the Recom-

¹² For demonstrative examples, see: Documents // URL: <http://www.ifapcom.ru/en/711> (accessed 15.10.2020).

¹³ For integral text of this document, see: Recommendation concerning the promotion and use of multilingualism and universal access to cyberspace. URL: portal.unesco.org/en/ev.php-URL_ID=17717&URL_DO=DO_TOPIC&URL_SECTION=201.html, (accessed 15.10.2020).

¹⁴ The chapter cited by us is entitled 'Facilitating access to networks and services'; its full text may be found loco citato.



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recommendations could serve as another example: sentence 8 determined this access as 'a determining factor in the development of a knowledge-based society'.

Having formulated this trend, UNESCO could take the next logical step, linking the acquisition of cyberspace, and digitization in general, to the sustainable development, which formed a major priority of this international organization (as well as for the UN organization in general). This logical and constructive step was taken, and in fact rather soon. Looking for sources which would testify to taking this step, we would have to remind about a highly popular declaration, approved by UNESCO as early as in 2012. It is often cited by its abridged title 'Vancouver Declaration', although the main title reads: 'The Memory of the World in the Digital Age: Digitization and Preservation'¹⁵.

Reading the main text of the Declaration, we find there a set of concrete recommendations, directed formally to the attention of the UNESCO Secretariat. Recommendation (f) seems to be the most important for the topic of this paper. It stated that 'good management of trustworthy digital information is fundamental to sustainable development'.

Similar formulations may be found in the text of a number of documents approved by UNESCO earlier than the one cited above. However it would be most expedient to focus our attention upon the Vancouver Declaration, because the topic of digitization of cultural legacy forms one of its focal points. Digitized information is to be reliable, authentic, and of course meaningful. Having formulated basic requirements (mostly in the text of

item (c) of the part of the declaration, directed to the 'professional organizations', which are active at the corresponding field. A somewhat different thesis may be detected in the text of item (h) of the part of the Vancouver Declaration, which was directed towards UNESCO Secretariat. The relevant information was presented there as 'authentic, contextualized and meaningful'.

Passing by minor differences of this kind, we feel that it would be more important to pay special attention to the initial part of item (h) where requirements to people who should be responsible for the collection, storing, and granting access to digitized information were formulated. They were characterized as 'cultural heritage professionals knowledgeable about digital forensics concepts, methods and tools'. A novel realm of expertise and activity was in this way outlined for specialists in the preservation of cultural heritage, where they were supposed to play an important role, which in some cases was to be regarded as decisive.

Policies of open data (open codes, in particular), open access to the cyberspace, and of its 'electronic governance' were also outlined in the text of 'The Memory of the World in the Digital Age: Digitization and Preservation' Declaration, namely in the text of chapter 7 of its main text. These policies were envisaged to 'dovetail with national and international priorities and be in full agreement with human rights'. As a result, a rather vast and definitely promising field of policies was roughly delimited in the Vancouver Declaration.

Following the chronological logics of our review, we would pass on now to the next official document which is highly important for our topic. It was approved by the General Conference of UNESCO in 2013, under the title of 'Medium-

¹⁵ UNESCO/UBC Vancouver Declaration 'The Memory of the World in the Digital Age: Digitization and Preservation'. URL: <https://www.ifap.ru/pr/2013/n130117b.pdf> (accessed 15.10.2020).



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Term Strategy 2014-2021'¹⁶. Judging by its title, we have to do in this case with the official document which defined main directions of the work of this international organization for a rather long time span, which has not yet fully expired. As a result, we have come to the present-day attitudes and trends of UNESCO.

Analyzing the text of the Strategy, which has been often called in relevant sources as 'Document 37/C4', one feels authorized to state that the scope of digital innovations was fully acknowledged by its authors. Starting to regard this comprehensive document, we find in the first Chapter, entitled 'The Evolving International Environment and Development Landscape', a formulation which reads: 'The opportunities of the digital revolution are enormous'.

Following the general logic of shifting from 'digital technologies' towards 'digital revolution', which may be traced back, as we know, in the chronological sequence of the official documents issued by UNESCO, one could suppose that the authors of the Strategy would not only state that digitization forms a potent factor altering science, education, and culture, on a global scale, but that it is likely to give birth to a qualitatively different civilization, and would pass on to the analysis of the corresponding arguments¹⁷.

¹⁶ UNESCO 37 C/4 2014-2021 Medium-term Strategy. URL: <https://unesdoc.unesco.org/ark:/48223/pf0000227860>, (accessed 15.10.2020).

¹⁷ Cf.: Makridakis, S. (2017). The forthcoming artificial intelligence (AI) revolution: Its impact on society and firms. *Futures*. URL: <http://doi.org/10.1016/j.futures.2017.03.006>, avessed 15.10.2020; Digitization research and innovation. Transforming European industry and services. European Commission (2017). URL: https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/dt_booklet.pdf, accessed 15.10.2020; for broader perspective in the framework of the European

One has to admit that the paradigmatic shift of this kind was not undertaken in the text of the Medium-Term Strategy. The next sentence of the formulation cited above, which was in fact rather radical, brings us back, to the level of 'information and communication technologies' (ICTs), which seemed to be definitely left behind in the course of the elaboration of problems and prospects of the digital revolution. 'ICTs are challenging the social fabric of societies, and open up innovative perspectives to education, sciences, creativity, innovation and the media, but they are unequally distributed and give rise to a *knowledge divide* for much of the world' (both fragments cited by us above, may be found in the main text of Chapter I of the Strategy, item (m); italics were introduced by us – D.S.).

The initial part of the thesis that we have just cited, was dedicated to the scope of the digital revolution, which was truly enormous. As to its final part, it presented the aspects of the aforementioned revolution, which seemed to UNESCO authorities to play the leading role in the middle-term perspective. It was related primarily to the 'knowledge divide' – and to, correspondingly, the 'digital divide' – especially in the case of the third world countries.

This trend was most carefully elaborated below, that is, in the text of Strategic Objective 9, which was defined as 'Promoting freedom of ex-

Union, see: Negreiro, M., & Madiega, T. (2019). *Digital transformation*. European Parliamentary Research Service; for a Russian view, cf.: Шестакова И.Г. Новая темпоральность цифровой цивилизации: будущее уже наступило. – Текст: непосредственный / И.Г. Шестакова // Научно-технические ведомости СПб ГПУ. Гуманитарные и общественные науки. – 2019. – Т.10. – №2. – С.20–29. (Shestakova I.G. Novaya temporal'nost' tsifrovoi tsivilizatsii: budushchee uzhe nastupilo (New temporality of digital civilization: future is already there). – Text: direct. / I.G. Shestakova. // Nauchno-tekhnicheskiie vedomosti SPb GPU. – 2019. – Vol.10. – No.2. – P.20–29).



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pression, media development and access to information and knowledge'. Having confirmed that the principles of inclusivity and equality remain absolutely important for UNESCO, the authors of the Strategy duly pointed out that their implementation remained mostly unresolved. As a result, the main task in this realm consisted just in 'transforming digital divides into digital inclusions' (for general context, cf. the text of Strategic Objective 9, chapter 88).

The rest of the articles of the Strategic Objective 9 consist in elaboration and detalization of this thesis. A notable exclusion consists the task of continuing 'to strengthen the preservation of documentary heritage, in particular in digitized and digitally born formats'. One finds this formulation, inwardly linked to the role of knowledge for both the present-day life, and for that of the future generations, at the very end of chapter 93, finishing the text of the Strategic Objective 9 as a whole. The text of this rather short chapter is, by the way, highly important for our topic. As stated in it, not only 'documentary heritage' should be regarded as an object of preservation, but also the 'repositories of rich knowledge', which have become an integral part of the 'digital revolution'. Judging by the text of the Strategy, both the pace of this work, and its intermediate results, are regarded by UNESCO as quite satisfactory.

This does not mean that UNESCO has resumed its elaboration of digital issues, having approved the Medium-Term Strategy. Quite contrary, a number of quite sophisticated documents was conducted in the framework of various sectors of the international organization, simultaneously with planning and implementing the Strategy for the years 2014 till 2021. Results of this work were incorporated primarily into the text of the Recommendation Concerning the Preservation of, and Access to, Documentary Heritage, Including in

Digital Form, which was approved a year after having approved the Medium-Term Strategy, i.e. in Autumn, 2015¹⁸.

Conducting analysis of its text, which is quite voluminous, and definitely rich in innovative steps, one feels authorized to remark that the list of objects belonging to digital heritage was considerably extended, especially at the expense of the so called *complex ones*, i.e. 'multi-media works, interactive hypermedia, online dialogues and dynamic data objects from complex systems, mobile content and future emerging formats'. UNESCO experts were sure that extension of this kind was quite timely, and would help the organization in keeping up with the pace of development of the cyberspace.

The citation above was extracted by us from the text of the Preamble to the main text of the Recommendation. According to our opinion, elaboration of the topic delimited in this way, was continued in the main text, especially in Chapter 4, entitled 'Policy Measures'. As it was stated by the authors of the Recommendation, preservation of digital heritage was critically dependent upon the decision and will of member states to open to the vast international audience its segment of the digital heritage

In order to facilitate optimal exchange of data, Member States should encourage the development and use of internationally recognized open source software and standardized interfaces for managing digital documentary heritage, and seek the cooperation of software and hardware developers in extracting data and content from proprietary technologies. Likewise, their memory institutions

¹⁸ Recommendation Concerning the Preservation of, and Access to, Documentary Heritage Including in Digital Form // URL: <https://unesdoc.unesco.org/ark:/48223/pf0000244675?posInSet=5&queryId=ad0a1f7c-611d-4c95-8a6e-b3749699249e> (accessed 15.10.2020).



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should aim for international standardization and interchangeability of cataloguing methods and standards. Studying the text of Chapter 4, item 4.8, we find a corresponding formulation: 'In order to facilitate optimal exchange of data, Member States should encourage the development and use of internationally recognized open source software and standardized interfaces for managing digital documentary heritage, and seek the cooperation of software and hardware developers in extracting data and content from proprietary technologies. Likewise, their memory institutions should aim for international standardization and interchangeability of cataloguing methods and standards'.

This thesis is supplemented by item 4.7 (Chapter 4). As stated there, member states might not be able and willing to open their segment of digital heritage to the international audience, partly because of the copyright exceptions, partly due to other considerations¹⁹. Even in this case, it would be highly expedient to provide access, primarily for the international expert community, to 'proprietary codes, keys and unlocked versions of technology on a non-profit basis'. In this way, software was *ipso facto* included into the list of digital heritage objects, albeit in operational terms.

Returning to the Preamble of the Recommendation Concerning the Preservation of, and Access to, Documentary Heritage, Including in Digital Form, we find there another trait, which is worth being mentioned. It consists in rather de-

tailed elaboration of the set of objectives of digital heritage preservation. To start with, UNESCO stressed that both analogue objects, and the digital ones were absolutely and equally indispensable parts of the cultural legacy of humanity, differing by formal characteristics, but not essentially, and including 'the evolution of languages, cultures, peoples and their understanding of the world'.

Digital heritage was in this way, *by induction*, included into the list of documentary heritage of humanity, and the cultural one, as well. Serving as common heritage, it was decidedly envisaged to be preserved in its integrity. As it was worded in item 66 of the 2014-2021 UNESCO Medium-Term Strategy, which was, as we know, elaborated practically simultaneously with the Recommendation, 'heritage, understood in its entirety – natural and cultural, tangible and intangible – constitutes assets inherited from the past that we wish to transmit to future generations because of their social value and the way in which they embody identity and belonging. These assets shall be used for promoting social stability, peace-building, recovery from crisis situations, and development strategies'.

Another important point of the Preamble consisted in emphasizing that documentary heritage was instrumental for the purpose of conducting constructive intercultural dialogue, which definitely belongs to the set of priorities of UNESCO²⁰. As it was stated in the text of Chapter III 'Mission Statement' of the Medium-Term Strategy of UNESCO, which was already analysed by us in some details above, the Mission consists in fact of quite a few objectives. To cite the corresponding formulation, 'UNESCO – pursuant to its Constitu-

¹⁹ For a broader perspective on copyright issues in present-day culture, see: Waldfoegel, J. (2017). How digitization has created a golden age of music, movies, books, and television. *Journal of Economic Perspectives*. 31 (3), 195–214. DOI: 10.1257/jep.31.3.195; Handke, Chr. (2006). Plain destruction or creative destruction? Copyright erosion and the evolution of the record industry. *Review of Economic Research on Copyright Issues*, 3 (2), 29–51.

²⁰ A brief overview of basic issues was undertaken in an earlier paper of ours: Spivak, D. (2017). Dialogue and heritage in the cultural strategy of UNESCO: a brief overview. *Culture and Dialogue*. 5 (2), 242–252. DOI:10.1163/24683949-12340035.



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tion – contributes to the building of peace, the eradication of poverty, and sustainable development and *intercultural dialogue through education, the sciences, culture, communication and information* (III:11; italics were introduced by us – D.S.)²¹. The latter couple of terms, closely linked to one another, directly refer to the topic of the present paper, i.e. to the digitization.

Rights and obligations of ‘memory institutions’, entitled to conduct preservation of documentary heritage and, of course, the digital one, forms another focal issue of the Recommendation Concerning the Preservation of, and Access to, Documentary Heritage, that we started to review above. ‘Memory institutions may include but are not limited to archives, libraries, museums and other educational, cultural and research organizations’, as stated in the Recommendation (part ‘Definitions’)²². One has to acknowledge that this short list was quite essential and constructive. However it did not exceed the limits of a similar list which had been included into the text of the Charter on the Preservation of Digital Heritage, which was approved by UNESCO in 2003: Article 8 of its text prescribed regarding ‘libraries, archives, museums and other public repositories’ as key actors of ‘national preservation policy’; this formulation was reiterated in Article 10, with a somewhat differing

ending (‘national libraries, archives, museums and other public heritage organizations’)²³.

The Recommendation sounded much more creative in those of its parts where the rights and obligations of the ‘memory institutions’ were outlined. As it was stated in the text of its Chapter 3 ‘Access to Documentary Heritage’, member states were encouraged to elaborate and to implement legal framework allowing these institutions to work upon the selection (and, if necessary, de-selection), arrangement, protection and storing of documentary archives, being sufficiently independent, which served as a prerequisite of comprehensiveness and integrity of the information stored.

As it was added in the text of Chapter 1 ‘Identification of Documentary Heritage’ were to be ‘non-discriminatory and clearly defined..., neutrally balanced with respect to knowledge fields, artistic expressions and historic eras’ (1.2). A little later, the list of limitations was somewhat enlarged by the authors of the Recommendation, in order primarily to ensure privacy, confidentiality, and security of the information (3.5). These limitations were for obvious reasons to be ‘clearly defined and stated and be of limited duration’ (ibidem). This set of limitations was crucially important, not only in practical terms, but in the theoretical ones, as well, as it formed counterpoint to the principle of open access to information.

One has to admit that a number of functions of memory institutions was in fact named in the text of the Recommendations, but not fully resolved. Thus reading the text of a chapter entitled ‘Definitions’, one finds the criterion which was defined as being focal for the selection of documents to be included into the list of documentary heritage.

²¹ UNESCO 37 C/4 2014-2021 Medium-term Strategy. URL: <https://unesdoc.unesco.org/ark:/48223/pf0000227860>, (accessed 15.10.2020).

²² Recommendation Concerning the Preservation of, and Access to, Documentary Heritage Including in Digital Form // URL: <https://unesdoc.unesco.org/ark:/48223/pf0000244675?posInSet=5&queryId=ad0a1f7c-611d-4c95-8a6e-b3749699249e>, (accessed 15.10.2020).

²³ Charter on the preservation of digital heritage. URL: http://portal.unesco.org/en/ev.php-URL_ID=17721&URL_DO=DO_TOPIC&URL_SECTION=201.html, (accessed 15.10.2020).



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It consisted in 'significant and enduring value to a community, a culture, a country or to humanity generally, and whose deterioration or loss would be a harmful impoverishment'²⁴.

The formulation just cited above, seems to be accurate at the first glance, which would have allowed us to elaborate it further as a sequence of standards and norms. However the next sentence abolished the preceding one – or, limited it substantially: 'Significance of this heritage may become clear only with the passage of time'. In practical terms, it means that no radical decision concerning selection of information should be taken, as, due to the general principle, cited above, the final decision had to be remained to future generations. If we assess the situation properly, an important problem was in this way outlined by UNESCO authorities, leaving its final settlement to discussion, preferably in the framework of expert meetings.

The list of official documents of UNESCO, dedicated problems and prospects of the digitization, has not come to an end at this point. One has to emphasize that the work on a number of novel strategic documents, dedicated to the elaboration of this topic, goes on quite intensively. An intervention issued recently by the Director General of UNESCO, Ms. A.Azoulay, may serve as a source of valuable information. The intervention occurred on June 15, 2020, as part of High-Level Dialogue on the UN Secretary-General's Roadmap on Digital Cooperation.

The main part of the Roadmap was presented to the international audience in a concise report,

²⁴ Recommendation Concerning the Preservation of, and Access to, Documentary Heritage Including in Digital Form // URL: <https://unesdoc.unesco.org/ark:/48223/pf0000244675?posInSet=5&queryId=ad0a1f7c-611d-4c95-8a6e-b3749699249e>, (accessed 15.10.2020).

issued by the United Nations organization Secretary-General, Mr. A.Guterres, on May 29, 2020. The purport of the report, as well as its basic ideas, have gained considerable interest and approval worldwide, in the framework of both the expert community, as well as general audience. Its main message was very well formulated in several parts of the Roadmap, especially in the Introduction to its text: 'Digital technology does not exist in a vacuum - it has enormous potential for positive change, but can also reinforce and magnify existing fault lines and worsen economic and other inequalities' (II:8)²⁵. Regarding the main trends of positive development of the digital technologies, Sustainable Development Goals were promoted by the UN Secretary-General to serve as basic priorities. As it was formulated in the text of Recommendation 1B, following the main text of the Report, 'digital public goods are essential in unlocking the full potential of digital technologies and data to attain the Sustainable Development Goals, in particular for low- and middle-income countries' (1B:21) ('digital public goods' mentioned in the citation, are opposed by the UN to digital products which functionally limited by 'copyright regimes and proprietary systems'²⁶).

²⁵ Road Map for Digital Cooperation: Implementation of the recommendations of the high-level panel on digital cooperation. Report of the Secretary-General. URL: <https://undocs.org/A/74/821>, (accessed 15.10.2020).

²⁶ Stating this thesis, Mr. A.Guterres emphasized that 'most existing digital public goods are not easily accessible because they are often unevenly distributed in terms of the language, content and infrastructure required to access them. Even when the relevant digital public good or open-source solution is found, support and additional investment are still required to scale them up and successfully implement them. A concerted global effort to create digital public goods would be key to achieving the Sustainable Development Goals' (1B:23, for broader context, cf. Road Map for Digital Cooperation: Implementation of the recommendations



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Passing to problematic points of the digitization, two aspects were highlighted in the Report of the Secretary-General. The first one was characterized as closely linked to the concept of human rights which had been outlined in the course of the pre-digital age. As a consequence, violations of human rights, committed in the cyberspace, tended to remain invisible for bodies which were responsible for monitoring and observing them: 'Online violations can lead to offline abuses', as it was clearly stated in part C of the Report (item 38), entitled 'Human Rights and Human Agency' (with the subtitle 'Recommendations 3A29 and 3B30 (digital human rights)'. The same thesis seemed to A.Guterres to be so essential, that it was reiterated in a somewhat altered way at the end of the same item C:38: 'Human rights exist online as they do offline and have to be respected in full'.

Another problem consists in the fact that the digitization has turned out to be not so neutral in ecological terms, as it seemed initially to be: 'Operations related to information and communications technologies (ICT) are expected to represent up to 20 per cent of global electricity demand, with one third stemming from data centres alone' (Introduction, item 10). Having stated this confusing fact, the reporter found it appropriate to supplement it with a positive thesis, balancing both in this way: 'On a positive note, the recent advances in technology offer ground-breaking opportunities to monitor and protect the environment, as well as overall planetary health. By harnessing them appropriately, the digital revolution can be steered to combat climate change and advance global sustainability, environmental stewardship and human well-being'. Taking in account these positive aspects, one feels

of the high-level panel on digital cooperation. Report of the Secretary-General. URL: <https://undocs.org/A/74/821>, p.7/20 (accessed 15.10.2020).

nevertheless authorized to state that future relations between green economics and the digitization don't seem to be easy.

Resolving this issue, as well as of other problematic points, forms a cluster of tasks which belongs mostly to the future. Ensuring speedy progress on this way could be greatly enhanced by the proper implementation of digital governance, both ethical and technological (the former related primarily to the human rights, the latter, especially to the environmental issues). United Nations organization has got means which are regarded by its Secretary-Genera as quite sufficient to cope with the contemporary threats and challenges, including a number of non-traditional ones. 'Surveillance technologies, including facial recognition' present a quite relevant example of the latter. A special part of the Report was in fact dedicated to them. The main conclusion seems to be quite actual and well-balanced: 'Surveillance technologies, where used in accordance with applicable international human rights law, can be effective law enforcement tools. However, there are reports of targeted communications surveillance and facial recognition software that could result in human rights violations and lead to arbitrary arrests or detentions and violation of the right to peaceful protest. These technologies may also misidentify certain minority groups and cement existing social biases, leading to situations in which marginalized people and members of minority communities may be more likely to be identified as the wrong gender or be discriminated against, for instance, in being denied loans' (C:49)²⁷.

²⁷Road Map for Digital Cooperation: Implementation of the recommendations of the high-level panel on digital cooperation. Report of the Secretary-General. URL: <https://undocs.org/A/74/821>, accessed 15.10.2020, p.11/20 -12/20. For an academic approach to the problem of digital surveillance, see: Zuboff, Sh. (2015). Big



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Returning to the intervention by the Director General of UNESCO, Ms. A. Azoulay, one feels authorized to mark that the Road Map for Digital Cooperation elaborated in the framework of UN, was assessed there as being both timely and constructive. In accordance with the mandate of UNESCO, humanitarian issues were regarded as focal for the works of this international organization. Reading the text of the intervention, we can mark two theses, which are most important for our topic. The first one consists in the fact that the artificial intelligence should be by no means regarded as 'a neutral technology', but rather an instrument that most actively takes part in the shaping of 'a new world'²⁸.

We would not find any kind of detailed elaboration of this thesis, which sounded quite essential, as it implied a possibility of a civilization shift, related to rapid progress of the digitization, in the Intervention of the Secretary General. However another important remark, related to top priorities of UNESCO, should be marked in this context. As emphasized by Ms. A. Azoulay, 'we must not lose in humanism what we gain in convenience or productivity' in the course of the digitization. This means that ethical principles continue to serve as the top priority of UNESCO, far exceeding both the technological and the economic ones.

One may hope and even preview that the civilization approach would find its way into the texts of strategic documents, which are being elaborated in the framework of UNESCO right now. This is primarily the case of the Middle-Term

other: Surveillance capitalism and the prospects of an information civilization. *Journal of Information Technology*, 30, 75–89. doi:10.1057/jit.2015.5.

²⁸ Implementation of the UN Secretary-General's Roadmap on Digital Cooperation. URL: <https://en.unesco.org/news/implementation-secretary-generals-roadmap-digital-cooperation>, (accessed 15.10.2020).

Strategy for the new eight-year period (2022 to 2029), which is most actively discussed at the present time. Working on its text, members of the UNESCO expert community would take into account concepts of other documents which are now being prepared by UNESCO. This is the case of a world first Recommendation for Digital Ethics, which is envisaged to be submitted for adoption by UNESCO's General Conference in November 2021.

Reviewing the texts of reports of both the UN Secretary General, and the UNESCO Director General, which were cited above, we would have to mark that new challenges were mentioned in them and analyzed to some extent. This was the case of the pandemic of COVID-19. There is no doubt that neither the United Nations organization, nor its hand, dedicated to issues of culture, education, and science, were fully prepared for the epidemic, as well as their member states. The work however was started quite swiftly; in some cases, novel forms were designed for that purpose. We would now pass on to their review, basing upon the materials published by UNESCO in the framework of its official portal, dedicated to counteracting effectively the pandemic²⁹.

Counteracting rumors and fake news concerning practically every aspect of the pandemic of COVID-19, which appeared abundantly in social networks, as well as in the global information realm in general, after the onset of the epidemic, especially after implementation of (self-)isolation measures in the majority of countries, formed an important target of UNESCO, which had to do directly with the digitization. A novel kind of tactics, introduced by the organization, consisted in providing support to the fact-checker movement. Members of this network community undertook system-

²⁹ COVID-19 response. URL: <https://en.unesco.org/covid19>, (accessed 15.10.2020).



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atic action in order to counteract the dissemination of false information, and to promote the spreading of the reliable one³⁰.

The topic of cultural heritage was also included into the tactics of UNESCO in the times of the pandemic, quite in an expected way. Fighting against viruses and infections of different kinds has in fact belonged to the list of priorities of the majority of societies known to us, both nowadays and in the course of the human history. As a result, documentary archives of all kinds contain most abundant traces of such efforts, including both effective and non-effective ones. Tracing back this situation, UNESCO realized its creative potential, and formulated a general task consisting in speedy elaboration of the corresponding aspect of cultural legacy. This move proved to be quite constructive and timely.

Digital UNESCO campus which was inaugurated on July 1, 2020, formed another novel trend in UNESCO activities, having to do with the digitization. The Campus comprised an informal global community of young people, who were enthused by the lofty ideals of UNESCO. 'During the first digital CAMPUS, we began to demystify the issues of the Covid-19 crisis and to pose the new challenges that emerged from this period', - sounded one of the first statements of the Campus³¹. Needless to say that the Campus became possible due to the existence of digital technologies. However they came to be used even more amply in the course of the following activities. Online courses and programs, envisaged to adapt young people to the new realities and to promote a better society

served as the main direction of activities of this kind.

One has to notice here that the education process of about 1,3 billion students worldwide, at all levels of education, was hit by the pandemic of COVID-19, in the course of the initial months of its spreading, due to complete or partial lockdown of schools, which was temporal, but nevertheless quite painful for the majority of them. The assessment, cited in the previous sentence, was produced by the experts of UNESCO, and cited later at the official portal of the World Economic Forum, which is often mentioned in the mass media by its abridged name of the Davos Forum³².

Having in this way cited the data supplied by UNESCO experts, officials of the Davos Forum passed on directly to digital literacy, which formed a key concept of digitalized education, as well as of digital culture in general. 'Digital literacy is just the doorway, then, to other literacies that we must wrap our heads around to ensure that technology serves all our best interests', - remarked the author(s) of the corresponding web page, and specified that did the 'doorway metaphor' mean, namely: (a) algorithmic literacy ('understanding bias in artificial intelligence systems or. how a search engine system works'), (b) data literacy ('how/when/where data is collected, how it is aggregated and retained, by whom and with what effects'), and (c) political and economic literacy ('what technologies are owned by whom, what industries are shaped by technology in what manners, how technologies shape public and political life

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³⁰Information sharing and countering disinformation // URL:

<https://en.unesco.org/covid19/communicationinformationresponse>, (accessed 15.10.2020).

³¹ Launch of digital UNESCO campus. URL: <https://en.unesco.org/news/launch-digital-unesco-campus>, (accessed 15.10.2020).

³²COVID-19's staggering impact on global education. URL:

<https://www.weforum.org/agenda/2020/03/infographic-covid19-coronavirus-impact-global-education-health-schools>, (accessed 15.10.2020).



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and the relationships between corporate and public/political interests')³³.

Detailed analysis of concepts of the corresponding platforms of the World Economic Forum forms part of a special paper. Returning to the role and place of the digitization in UNESCO strategy, which is the main topic of the present work, we wish to admit that it presents a personal vision of the topic, which has been mostly influenced by discussions with Russian colleagues, in the framework of both UNESCO Chair on Comparative Studies of Spiritual Traditions, their Specific Cultures and Interreligious Dialogue, headed by the author, and the community of UNESCO chairs in Russia. It has been greatly enhanced by the fact that 'the level of digitization in Russia, as well as its pace' were assessed recently by UNESCO top level experts as 'high'³⁴.

³³ This is how digital literacy can transform education. URL: <https://www.weforum.org/agenda/2020/03/why-is-digital-literacy-important>, accessed 15.10.2020. For wider context, see: Dufva, T. & Dufva, M. (2018). Grasping the future of the digital society. *Futures*. URL: <https://doi.org/10.1016/j.futures.2018.11.001>, especially chapter 5.1. 'Reclaiming digitality', (accessed 15.10.2020).

³⁴ Эксперты ЮНЕСКО высоко оценили уровень цифровизации России // URL: <https://digital.gov.ru/ru/events/39190/>, дата обращения: 15.10.2020. (Eksperty UNESCO vysoko otsenili uroven' tsifrovizatsii Rossii (UNESCO experts assessed highly digitization level in Russia) // URL: <https://digital.gov.ru/ru/events/39190/>, accessed: 15.10.2020). Special measurements provide a somewhat lower assessment, cf.: Халин, В. Г., & Чернова, Г. В. Цифровизация и ее влияние на российскую экономику и общество: преимущества, вызовы, угрозы и риски / В.Г. Халин, Г.В. Чернова // Управленческое консультирование. – 2018. – № 10. – С.55–60. (Khalin, V.G. & Chernova, G.V. Tsifrovizatsiia i ee vliianie na rossiiskuiu ekonomiku i obshchestvo: preimushchestva, vyzovy, ugrozy i riski (Digitization and its influence upon Russian economics and society: threats and risks). – Text: direct. / V.G. Khalin, G.V. Chernova

Some of the projects conducted in this realm in Russia, have been most important and even keynote. To name but a few, UNESCO Institute for Information Technologies in Education has to be cited. It was created in Moscow in 1997, by the decision of UNESCO General Conference, as the only Category 1 institute, holding a global mandate for the elaboration and implementation of information technologies in education. Ideas and strategies of the global agenda Education 2030, as well as those of the UN Sustainable Development Goal 4 'Quality Education', serve as the focal points of the Institute at the present time³⁵. Medium-Term Strategy for the years 2018-2021 serves as the major strategic planning document, issued by the Institute³⁶. The next four-year strategy is now being prepared by its specialists.

Annual Week of UNESCO Institute for Information Technologies in Education belongs to the list of strategic projects of the Institute, that is conducted under the auspices of the Commission of

// Upravlencheskoie konsultirovanie. – 2018. – No.10. - P.55-60): Ларионцев, М.М. Big data в сфере культуры: тренды и проблемы / М.М. Ларионцев. – Текст: электронный // Культурологический журнал. – 2020. – Т.40. – №2. URL: http://cr-journal.ru/files/file/07_2020_22_00_26_1594062026.pdf, дата обращения: 15.10.2020. (Lariontsev, M.M. Big data v sfere kul'tury: trendy i problemy (Big data in the sphere of culture: trends and problems). – Text: electronic. // Kulturologicheskii Zhurnal. – 2020. – Vol.40. – No.2. URL: http://cr-journal.ru/files/file/07_2020_22_00_26_1594062026.pdf, (accessed 15.10.2020).

³⁵About UNESCO IITE // URL: <https://iite.unesco.org/about-unesco-iite/>, (accessed 15.10.2020).

³⁶ For full text, cf. information presented at the official site of the Institute: UNESCO Institute for Information Technologies in Education Medium-term Strategy 2018-2021. URL: <https://iite.unesco.org/wp-content/uploads/2018/03/IITE-Mid-Term-Strategy-2018-2021.pdf>, (accessed 15.10.2020).



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the Russian Federation for UNESCO, in partnership with a number of leading scientific and educational institutions, including Heritage Institute, which serves as the host institution for our UNESCO chair. Basic information concerning the program of the latest Week, which was conducted in Autumn 2019, has been presented at its official site³⁷. Works of this kind form most positive context for the elaboration of problems and prospects of digitization both in this country, and worldwide.

Basing on the analysis undertaken in the present paper, we feel authorized to draw several basic conclusions:

– digitization forms an essential dimension of cultural, educational, and scientific strategy of UNESCO, that has been elaborated in a number of strategic and normative documents, issued by this international organization, which are currently in the process of being revised and supplemented, in order to withstand novel global challenges and threats, which is especially the case of the COVID-19 pandemic. The Russian Federation has taken most active part in the elaboration and implementation of this dimension at a number of levels, from the expert community to the state authorities;

– imbuing digitization by lofty ideals of UNESCO, especially by those concerning the basic

human rights, and converting digital divides into digital inclusions, by means of providing equal, just, and affordable access to the digital sphere and the cyberspace, forms the first and the main trend in the elaboration and implementation of the digitization;

– preservation of digital heritage, which was acknowledged by UNESCO as a ‘new legacy’, that is no less important than the older (analogue) one, forms the second keynote trend. Digital heritage basically consists of two kinds of objects, the first one of which comprises those converted into digital form from existing analogue resources, while the second one includes objects which were created (born) digitally. The latter are granted priority, if all the other conditions are equal. Metadata are recommended by UNESCO to be included into the lists of digital heritage; as to the software, its status in the realm of digital heritage remains still a matter of discussion;

– elaboration and implementation of principles of governance and self-governance of the digital community, and well as of the societal control over its activities (comprising primarily ethical governance and the technological one), especially its compliance with UN Sustainable Development Goals, form the third main trend of digitization in the strategy of UNESCO.

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³⁷ Неделя ИИТО ЮНЕСКО 2019 в рамках XIV Международного Фестиваля «Ветер перемен». 25-29 ноября 2019. Санкт-Петербург, Россия. Программа. – Текст: электронный. URL: <https://iite.unesco.org/wp-content/uploads/2019/11/Programma-Nedeli-IITO-YUNESKO-2019.pdf>, дата обращения: 15.10.2020. (Nedelia IITO UNESCO 2019 v ramkakh XIV Mezhdunarodnogo Festivalia ‘Veter Peremen’. (IITO UNESCO week in the framework of 14th International Festival ‘Wind of Change’). November 25-29, 2019. St.Petersburg, Russia. Programma. – Text: electronic. URL: <https://iite.unesco.org/wp-content/uploads/2019/11/Programma-Nedeli-IITO-YUNESKO-2019.pdf>, (accessed 15.10.2020).



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ОСНОВНЫЕ НАПРАВЛЕНИЯ ЦИФРОВИЗАЦИИ В СТРАТЕГИИ ЮНЕСКО

Цифровизация представляет собой весьма приоритетную размерность культурной, образовательной и научной стратегии ЮНЕСКО, которая была разработана и кодифицирована в ряде официальных документов, принятых данной международной организацией. С появлением новых глобальных вызовов и угроз, прежде всего пандемии COVID-19, эти документы подвергаются пересмотру и дополнению, которое проводится весьма активно. Первым и основным направлением разработки и имплементации этой размерности является ее насыщение высокими идеалами и принципами ЮНЕСКО, прежде всего по линии соблюдения базовых прав человека, а также превращения «цифровых разрывов» в «цифровые инклюзии», путем обеспечения всеобщего, равного, справедливого доступа к цифровой сфере и киберпространству. Этот тренд прослежен в тексте статьи по данным ряда официальных документов, от «Всеобщей декларации ЮНЕСКО о культурном разнообразии» (2001) – до «Среднесрочной стратегии ЮНЕСКО на 2014-2021 годы» (по линии прежде всего Стратегической цели 9), которая в настоящее время проходит процесс пересмотра и продления на новый восьмилетний период. Второе основное направление состоит в разработке и внедрении системы охраны цифрового наследия, признанного ЮНЕСКО в качестве «нового наследия» (нового по отношению к «старому», то есть аналоговому). Цифровое наследие разделяется при этом на два ключевых компонента – объекты, конвертированные из цифрового формата, и объекты, в нем созданные, причем последним отдается предпочтение, при прочих равных условиях.

Метаданные рассматриваются ЮНЕСКО как неотъемлемая часть цифрового наследия; что же касается программного обеспечения (софтвера), то его статус остается на настоящий момент дискуссионным. Данное направление было прослежено нами по данным таких авторитетных источников, как Декларация ЮНЕСКО «Память мира в цифровую эпоху: Цифровизация и сохранение» (2012), «Приложение 6» (2015) к Программе ЮНЕСКО «Память Мира», а также «Рекомендации об обеспечении сохранности и доступности документального наследия, в том числе в цифровой форме», (2015). Третье базовое направление состоит в налаживании системы управления (говернанса) и самоуправления цифрового сообщества, а также укреплении общественного контроля за его деятельностью, в первую очередь по линии этического и технологического говернанса, а также соответствия его развития Целям устойчивого развития ООН. Данный тренд прослежен в статье по материалам недавно проведенной Панели высокого уровня, посвященной завершению разработки и внедрению в жизнь «Дорожной карты Генерального секретаря ООН по цифровому взаимодействию», и прежде всего, доклада Генерального директора ЮНЕСКО О.Азуле (2020), а также «Цифрового кампуса ЮНЕСКО», инициированного в связи с пандемией COVID-19 (2020).

Ключевые слова: цифровизация, стратегические исследования, ЮНЕСКО.



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