DIGITALIZATION OF THE EU CULTURAL DIPLOMACY IN THE CONTEXT OF LONG WAVES AND THE COVID–19 CRISIS

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ABSTRACT

The objective of the article is to examine the process of digitalization of the EU cultural diplomacy enhanced by the pandemic of COVID-19, considering the factors of the long-term cycles called long waves. The theory of long waves is represented by various concepts, the first one was the Kondratiev model. On their basis, indicators of the onset of a new wave were identified: 1) Innovation implementation; 2) Economic challenges; 3) Social transformation; 4) Sustainability. From the point of defining the correct terminology, the terms ‘digitalization’ and ‘digitization’ are presented. The statistics data presents the current implications of the COVID-19 pandemic for the cultural sectors and influencing the acceleration of digitalization, which indicates the relevance of this study. The final part offers the main features of the development of the EU cultural diplomacy, considering the mentioned indicators of a long new wave. Future research could be based on the discovered consequences of accelerating digitalization of cultural diplomacy.

Keywords: International relations. World politics. Digital revolution. Digitization. Sustainability.

DIGITALIZAÇÃO DA DIPLOMACIA CULTURAL DA UE NO CONTEXTO DAS ONDAS LARGAS E DA CRISE DO COVID–19

RESUMO


RESUMEN

El objetivo del artículo es examinar el proceso de digitalización de la diplomacia cultural de la UE potenciada por la pandemia de COVID-19, considerando los factores de los ciclos a largo plazo llamados ondas largas. La teoría de ondas largas está representada por varios conceptos, el primero fue el modelo de Kondratiev. Sobre su base, se identificaron indicadores del inicio de una nueva ola: 1) Implementación de la innovación; 2) Desafíos económicos; 3) Transformación social; 4) Sostenibilidad. Desde el punto de definir la terminología correcta, se presentan los términos “digitalización” y “digitalización”. Los datos estadísticos presentan las implicaciones actuales de la pandemia COVID-19 para los sectores culturales e influyen en la aceleración de la digitalización, lo que indica la relevancia de este estudio. La parte final ofrece las principales características del desarrollo de la diplomacia cultural de la UE, considerando los indicadores mencionados de una nueva ola larga. La investigación futura podría basarse en las consecuencias descubiertas de la aceleración de la digitalización de la diplomacia cultural.

INTRODUCTION

Cultural diplomacy is one of the most effective and important tools for implementing the foreign policy strategy of any state that claims to play a significant role in the system of modern international relations (ŠEŠIĆ, 2017). Using special tools, forms and methods, cultural diplomacy can make a substantial contribution to ensuring national interests and improving the effectiveness of foreign policy. The crisis caused by COVID-19 has influenced on all spheres of public life in one way or another, changing the priority of development and offering new solutions for coordination and interaction in the global community at the time when most countries of the world have closed borders, suspended international transport communication systems, and were forced to disrupt international exchange for the most part in all aspects (PASIKOWSKA-SCHNASS, 2020). Artists and organizations have been heavily affected by the sudden cessation of their activities, which rely so strongly on gathering people to cooperate transboundary.

The cultural performing sector have been touched considerably by the pandemic. Not to be unfounded, in April 2020 a non-profit organization CINARS (2020) launched the survey in which 737 respondents, professional performers from 45 states participated. As reported by CINARS the performance events involving the respondents had been cancelled – 40%, postponed – 38%, and reduced – 22%. This can be supported by the fact that a European non-governmental network engaged in live music sector Live DMA states that in 2020 there was a 70% decline of music events in the European Union 284,000 of music events were cancelled or postponed (DEE, 2020).

Talking about museums and their international activity, the statistics are also depressing: 95% of the estimated 95,000 museums worldwide were closed in May due to COVID-19 and 13% of them might not reopen (ICOM, May 2020, p. 2). Nevertheless, the pandemic has had a positive impact on culture as well, the crisis made it possible to rethink the traditional forms of interaction. It led to conduct cultural programs in the virtual space at a qualitatively new level. About digitalization and cultural diversity, it is obvious that during the COVID-19 crisis the volume of cultural products on the network and international exchange in culture have increased dramatically (UNESCO, 2020).

METHODOLOGY

The challenge of COVID-19 is the start of the rapid development of technology, the emerging digital transformation of the entire economic system including cultural sector and cross-cultural relations. Theories that focus on the technological factor of cyclical are beginning to develop. In this paper the digitalization in cultural sectors is considered by:

1) The developed indicators of an outbreaking long wave based on the previous theories and related to the digitalization of cultural diplomacy in connection with the COVID-19 crisis;

2) The established strategies, which the EU institutions set up to drive the digitization of industry in cultural sector across Europe and beyond in recent years;

3) The main characteristics of the development of cultural diplomacy in the context of long waves.

In conclusion the consequences of digitalization for cultural diplomacy in general on the macro level are demonstrated. In 1925, the work of Nikolai Kondratiev The Major Economic Cycles was published, where the author formulated the theory of cycles in the economic, social, and cultural development of capitalist countries (KONDRA TIEV; YAKOVETS; ABAL KIN, 2002). N. Kondratiev outlined the term a ‘long wave’ as a rather prolonged economic cycle developing from the implementation of groundbreaking technological solutions which, consequently, led to a period of wealth in economics and stability (BARNETT, 1998).

Considering large cycles of market conditions, Kondratiev based his conclusions on the analysis carried out by the most modern methods at that time, primarily economic and mathematical, and on the processing of a large array of statistical data on the main macroeconomic indicators (price dynamics, wages, loan interest, foreign trade indicators, etc.). He observed these indicators for the 1780s and 1920s for the leading national economies (Great Britain, Germany, France, the United States) and the world economy as a whole. Kondratiev’s research on the data on the exchange rate of state securities confirmed the presence of large cycles in the movement of interest on capital, the periods of which are close to the corresponding periods of movement of commodity prices. Thus, the ‘long wave’ concept is recognized internationally and applied to characterize the evolution of technologies (Figure 1).
THEORETICAL BACKGROUND OF LONG WAVES CONCEPT

The theory of N. Kondratiev remains in the center of discussions, it is criticized by researchers of the world economic development. According to opponents these cycles (waves) have weak predictive properties. For instance, in the 1920s – 1930s Dmitrii Oparin, pointed out that despite the larger or smaller deviations from the average in one direction or another in different periods of economic life the time series of the studied economic indicators do not allow to single out strict cyclicity, both in terms of a separate indicator and in the correlation of indicators. A. Maddison defines other factors that influenced the formation of fluctuations in the economic development of capitalist countries after 1820. He believed that Kondratiev and other researchers of long waves did not consider the serious changes in the causes of economic growth in the 19th century, as well as the significant role of the governments of many countries, which began to influence the natural course of economic development with the help of regulatory mechanisms and their share in the economy (MADDISON, 2007). H. Hagemann (2014) has serious doubts about the theory of long waves itself and the theory was completed not by Kondratiev, but it was developed later by other researchers who took Kondratiev’s work as a basis.

However, critics of the K-waves (Kondratiev wave) theory assessed it mostly as an economic concept. It is noted that one of the main factors for the onset of a new wave is the emergence and widespread use of new technologies and innovations. Thus, K-waves become a convenient tool for modelling changes of technological eras. K-waves relate to various areas: economic, scientific and technical, political, socio-cultural, etc., therefore, their interaction is inevitable. Paying special attention to the extent of society in space, N. Kondratiev emphasized that social phenomena are based on the features of spontaneity and are subject to the same natural regularity as the economic cyclicality of development, which makes it related to the theory of chaos. The use of chaos theory in the social sphere is described in more detail, for example, in the paper Chaos Theory: The case of the COVID-19 pandemic in Wuhan, China, from the perspective of international relations (KOVALEVSKAI; FEDORITENKO; WILLIAM, 2021).

The changes that are recorded every 40-60 years are caused by the demands of production and the creation of such conditions when it becomes possible the application of the inventions. Kondratiev’s ideas opened discussions about the observed cyclicality of processes in economics and technologies, as well as the factors that lead to them.

J. Schumpeter (1950) in the 1950s named technological and organizational decisions affecting the course of
industrial and economic development as the main signs of the ‘long wave’ onset. His theoretical developments are based on the concept of innovation. According to Schumpeter, the economy develops through the accumulation of innovations. In the 1970s the development of the theory of innovation was continued by G. Mensch (1979), who empirically substantiated the existence of 50-year cycles, replacing each other as a new ‘wave’. In addition, Mensch introduced the definition of technological stalemate – economic stagnation that occurs when basic changes exhaust their potential. Industrial development is nothing more than a change in technological stalemates.

In the 2010s, in the joint work of K. Fakuda and K. Watanabe (2012), they consider innovations that allow increasing the productivity of enterprises and labor while reducing the level of resources expended and negative impact on the environment, to achieve sustainable development that covers the economic, environmental and social spheres. Thus, one of the main functions of the innovation ecosystem, uniting both the public and private sectors, is the funding by government organizations of research activities and other areas that affect the effectiveness of innovation, support of small and medium-sized enterprises that bring to the market transformed knowledge and research, as well as a qualitative increase in the level of infrastructure development.

The theory of long waves in technological and economic development provides for a long-term paradigm shift that occurs because of revolutionary changes. In this context, it is necessary to pay attention to the concept of industrial revolutions. K. Schwab in his research papers on industrial revolutions substantiated the idea of the coming Fourth Industrial Revolution. Today there is a significant increase in digital opportunities that affect the production of goods and services (SCHWAB, 2016).

**Indicators of an outbreaking long new wave**

It is possible to figure out some indicators inherent to the onset of a new long wave and a new technological order based on the above-mentioned concepts.

**Innovation implementation**

Most of the long wave’s concepts are based on the idea of linking each wave with the widespread adoption and use of a certain type of technology. Innovation is considered both a trigger for a new wave and an inevitable companion of its upward phase. In this context, it is worth paying attention to the work of C. Perez (2002) and her concept of the technological paradigm. According to the research, the following conditions for a paradigm shift are necessary: a) favorable conditions for the next technological revolution; b) emerging of a certain technological paradigm that stimulates innovators with the space for design and product solutions. Today, digitalization is becoming the key process of technological changes in the world.

**Economic challenges**

The economic crisis triggers both the closure of old and unprofitable enterprises and the search for solutions that can provide profit using an alternative method of organizing production. Significant renewal of the economy opens an opportunity for technological innovations to enter the market and their rapid implementation. The COVID-19 pandemic has triggered a significant crisis, its overcoming will change existing economic relations and their structure.

**Social transformation**

According to Kondratiev, all social processes – wars, revolutions, population migration – are the result of the transformation of the economic mechanism leading to the use of new resources and technologies. The social and economic crisis follows a paradigm change and becomes a trigger for technological modification. Moreover, with the process of social changes, there is a change in working conditions, which leads to the search for new solutions among employers (PEREZ, 1989).

**Sustainability**

This indicator mostly stands out in relation to the present. Sustainable development and careful attitude to the world around us forces us to look for new solutions in the use of energy resources, which significantly affects technological, social and cultural spheres. This factor should be especially considered since today many countries associate the possibility of sustainable development with the process of digitization and digitalization. The indicators allow us to identify key changes that demonstrate the onset of a new long wave of world technological development. These changes affect all areas of life, and especially the sphere of culture. A new round of digitalization in the technological field allows us to investigate the factors of the onset of a new wave in
cultural diplomacy.

**Terminology**

Before embarking on the changes taking place in the digitalization of cultural diplomacy, it is important to understand the difference between the terms. In this article, the terms ‘digitization’ and ‘digitalization’ (MAHMOUDSALEHI, 2020; SAVIĆ, 2019; HESS et al., 2016; BRENNAN, KREISS, 2014), are used but they are by far not identical (interchangeable).

Digitization is the process of converting analog signals to digital without any changes to the process itself.

Digitalization refers to areas of social life being rebuilt around digital communications and media infrastructures and relates to the use of digital technologies to change the business model.

<table>
<thead>
<tr>
<th>Table 1. Aspects of digitization and digitalization</th>
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<tr>
<td><strong>Aspects</strong></td>
</tr>
<tr>
<td>Level of analysis, areas</td>
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</table>

Source: Search data.

The concepts of digitization and digitalization are distinct, but merging ones. In this study, we focus mainly on the digitalization of cultural diplomacy and ultimately, the digital transformation of these models. The importance of digitalization can be indicated for three reasons:

- Digitalization of cultural contents is an essential cooperation potential in international cultural relations in a large number of countries.
- Digitalization of cultural heritage is a sustainable form of cultural heritage protection.
- It is a way to encourage digital marketing in cultural area and commercialize cultural products which in the meantime could not reach a broad audience.

**Figure 2.** Number of mentions of terms ‘digitization’, ‘digitalization’ and ‘digitation’ - Documents by country or territory (Top 10)

Source: REIS et al., 2020, p. 446.

Digital diplomacy provides methods and solutions of implement of diplomacy with the help of the Internet and Information and communications technologies (ICTs). As it can be noticed on March 5th, 2019 (when the research by João Carlos Gonçalves dos Reis et al. was conducted) the first three places of group of ten in investing on the integration of information and communication technologies (ICT) and digitalization processes European Union hold. In particular Nordic European states in particular such states as Sweden, Germany and Finland
Digitalization of the EU cultural diplomacy in the context of long waves and the COVID-19 crisis

(KAGERMANN; WAHLSTER; HELBIG, 2013) (Figure 2). With the digital revolution started in 1980s, the Internet is offering new opportunities and space for cultural exchange and consumption through new trends such as ‘platformization’ (phantomization can be defined as ‘the extension of social media platforms into the rest of the web and their drive to make external web data platform ready’ (HELMOND, 2015) and e-commerce (UNCTAD, 2019). Its power of transformation has been recognized by the European Institutions (IGI Global, n.d.). That is why it was decided to consider digitalization by the example of the European Union.

DIGITALIZATION OF CULTURAL DIPLOMACY IN THE EUROPEAN UNION AT THE PRESENT STAGE OF ITS DEVELOPMENT

Digitalization of cultural industry in the European Union policy
The European Commission’s digitization of Europe’s cultural heritage strategy was announced in 2018 (EUROPEAN COMMISSION, n.d.). The strategy is a call for digital to amplify culture’s contribution to the social, economic and innovation agenda of Europe. As part of the strategy, several initiatives were announced in the new program Creative Europe program (EUROPEAN COMMISSION, 2018) and more are expected to follow 2021:

- Propose next steps for Europeana (2018);
- Stimulate cross-overs and collaboration between art and technology for sustainable innovation on industrial and societal levels (2018);
- Create a network of centers across the EU to safeguard knowledge of endangered heritage monuments through large-scale digitalization (2019);
- Create an online directory of European films and launch the first EU Film Week to make European films available to schools across Europe (2019) (EUROPEAN COMMISSION, 2019);
- Launch pilot mentoring schemes for audiovisual professionals (2019);
- Call for proposals on Bridging culture and audiovisual content through digital (2019);

The strategy, although not published as one distinct document. The Commission of European Union presented a vision, targets and avenues for a successful digital transformation of Europe by 2030 on 9 March 2021, which speaks, among other things, about Digital transformation of businesses (NEGREIRO, MADIEGA, 2019). Cultural diplomacy can serve by opening the cultures and mindsets of peoples to the world. There are several conditions that we will rely on in the future in politics, which we will apply in cultural diplomacy, and in the further development of access to online events. This article shows that the digitalization of public life, including culture, occurs naturally; certain aspects of this process will be highlighted, based on the concept of long waves. On this issue, it is also reasonable to consider the consequences of the digitalization of cultural institutions in conclusion.

Shaping Europe’s digital future
In February 2020, the Council’s Draft Decisions on Shaping Europe’s Digital Future (European commission, 2020) noted that areas such as e-health, digital education, e-government, data exchange and broadband are called upon to receive special attention following the shifts caused by COVID-19. In the document itself, there is no direct reference to culture and cultural diplomacy, but it is difficult to imagine that this area will not be touched upon. The EU should take steps to ensure that member states can provide 5G spectrum frequencies by the end of 2020, which will take data quality to the next level. The corresponding project was adopted on June 9, 2020 (COUNCIL OF THE EUROPEAN UNION, 2020). The conclusions of the Project highlight the need for the EU to facilitate the exchange of data between enterprises and institutions to gain critical mass and bring about positive changes in the data economy. The increased demand for the use of digital solutions has focused the digital transformation vector on the development of technological aspects in sectors of the economy. The final part analyzes the current situation, making the implementation of administrative decisions in cultural diplomacy. An analysis of EU policy changes in digitalization of cultural diplomacy using the example of the EU provided enough material to assess the long-wave control systems that existed before and after the COVID-19 crisis.
Long waves and cultural diplomacy

According to the assumptions of some researchers, we are at the beginning of the 6th K-wave (Kondratiev wave) [NEFIODOW, NEFIODOW, 2014]. The end point of the previous wave is the economic crises of the 2000s. In our case, we view the COVID-19 pandemic as the trigger for the rapid rise of the long new wave. Cultural diplomacy follows general trends in the economic, technological and social field. Digitalization leads to the creation of new digital platforms such as social media, video conferencing software, and services based on blockchain technology. The market economy based on digital platforms requires new forms of interaction, at both national and international levels. This leads to changes in all areas, including cultural diplomacy. The processes of digitization and digitalization are becoming the main driving forces of the Fourth Industrial Revolution, making international cooperation more diverse and multifaceted. The COVID-19 crisis has accelerated this trend (SCHWAB, MALLERET, 2020).

MAIN CHARACTERISTICS OF THE DEVELOPMENT OF CULTURAL DIPLOMACY IN THE CONTEXT OF LONG WAVES

The key characteristics of cultural diplomacy during a new wave of technological development of humanity, using the following indicators: 1) Innovation implementation; 2) Economic challenges; 3) Social transformation; 4) Sustainability can be figured out.

1. The COVID-19 crisis has dramatically accelerated appearance of innovations in cultural sectors. According to a study by the Network of European Museum Organizations (NEMO, 2021, p.16), during the pandemic, 81% of large European museums increased their digital capabilities, while this percentage is lower among small museums and reached 47% (Figure 3). Over 80% of respondents suggested that their museum requires additional support with digital tools and transition. This is due to the prevailing conditions associated with the closing of museums due to quarantine restrictions. However, the creation of a wide digital infrastructure will change the policy of cultural institutions after the end of the pandemic.

Figure 3. Museum size & increase of digital capacities


Axiell’s research shows that the two highest priority areas for 2020 in terms of investments for the future were digitizing museum content and remote the experiences due to COVID, such as distance learning and virtual programs (Axiell, 2020). Museums began to actively introduce virtual tours, online publications, digital exhibitions and so on.

2. Lockdowns and restrictions on businesses in Europe during the COVID-19 pandemic hit the financial sustainability of the cultural sector. According to the NEMO report, 70% of museums plan to cut their own spending in the next two years (Network of European Museum Organisations (NEMO), 2021, p. 14). This prompts cultural institutions to look for cheaper ways to interact, which will also entail additional investments in digital solutions. However, it will also be necessary to start searching for new sources of income. The main income of cultural institutions consists of the profit from ticket sales because of the physical presence of the visitor (European Parliament, 2021). Thus, it is an opportunity for changing the structure of financing of cultural institutions, with the help of direct support from the state. Such significant changes will have an impact on the mobility of cultural diplomacy and the ability to host large exhibitions and other events.
3. According to the report of the International council of museums the large majority of the staff in 84% of museums is working remotely during the lockdowns [ICOM, 2020, p. 4] (Figure 4).

Figure 4. Current situation of the staff in museums

<table>
<thead>
<tr>
<th>Working on-site</th>
<th>33.0%</th>
</tr>
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<tbody>
<tr>
<td>Working from home</td>
<td>84.0%</td>
</tr>
<tr>
<td>Mandatory paid leave</td>
<td>16.0%</td>
</tr>
<tr>
<td>Temporarily laid-off</td>
<td>14.0%</td>
</tr>
<tr>
<td>Laid off / Temporary contract not renewed during lockdown 2020</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

NB. this was a multiple answer question, percentages are higher than 100% and illustrate how many of the total number of respondents selected at least that answer

Source: ICOM (2020, p. 4).

During the first severe restrictions, more than 70% of workers in European museums worked partly from home, while 24% saw a decrease in international contacts (Network of European Museum Organisations (NEMO), p. 22). A new culture of social contacts has emerged — due to the introduction of social distancing measures, the mobility of the population around the world has decreased by 73% (NOUVELLET et al., 2021). This creates a new need for digital communication, which is also reflected in cultural diplomacy. Cultural diplomacy is increasingly becoming digital, accelerating the process of digitizing art objects.

4. In the future development of cultural diplomacy, the widespread use of more environmentally friendly ways of using energy resources will be established (OLÁH et al., 2020). In the case of digitalization of cultural diplomacy, there will be a reduction in the use of conventional modes of transport and fuel. The COVID-19 crisis has demonstrated that the use of digital platforms can contribute to a more sustainable way of communication.

During the COVID-19 crisis, the development of digital management tools has become not just a trend, but an urgent need to establish an effective process of interaction, including in cultural diplomacy. Overall, the coronavirus pandemic has sparked a surge in initiatives. The European Union along with other countries involved in digital transformation, were forced to adjust their plans for the future prospects for digital development. In particular, the changes affected the draft decisions of the EU Council on shaping the digital future of Europe, initiatives in the field of cultural diplomacy. The sharp intensification of the digitalization process, presented in the context of long waves, showed both new opportunities and previously unknown challenges and risks.

Conclusion presents the preliminary results of a study on EU policy, which demonstrate difference in intensity and content trajectories of digital transformation in general and in cultural diplomacy in particular. It should be noted that the analysis of the processes of digitalization of cultural diplomacy showed the impossibility of a meaningful consideration of this process in isolation from the dynamics of the innovative development of the EU region as a whole.

CONCLUSION
The spread of COVID-19 fell on the active phase of the digitalization process in the period of the new wave, inadvertently becoming a trigger to accelerate the implementation of the accumulated potential of using digital technologies and innovation implementation, as well as initiating new solutions to combat it and its devastating socioeconomic consequences - economic challenges and social transformation. All these changes are in one way or another aimed at sustainability, because digitalization and sustainability are two of the most powerful market influences in today’s corporate landscape. Each has spawned a massive amount of research about how it will change management practice, and more broadly, business and society. But at the same time digitalization may not bring the desired quality results in the field of cultural relations and social change due to the lack of physical participation:

1. Innovation implementation. While new technologies contribute to tackle inequalities and sustainability challenges, they can also exacerbate socio-economic divides between and within societies (UNCTAD, 2019, p.
147). United Nations Conference on Trade and Development (UNCTAD) recent estimates of international aid flows suggest that only a small fraction of Official development assistance (ODA) is explicitly addressing the development implications of digital transformations. This might reflect the fact that digitalization for development is a relatively new domain for ODA (UNCTAD, 2019, p. 147).

2. Sustainability. The same report suggests that digital technologies have the potential to both enable and hamper the achievement of the SDGs (UNCTAD, 2019, p. 148). While there has been much enthusiasm about innovation and creative hubs, the 2019 UNCTAD report on digital economy underlines that only a few experiments became successful. Over the long term, actions for culture and development will have to factor in digital dimensions more systematically.

3. Social transformation. Digital technologies have the potential to enhance cultural diversity. Linguistic diversity in digital media and on the Internet is an obvious example (RICHIERI HANANIA, 2012). At the same time, it could not be called entirely positive, because they have the power to let certain cultures dominate others.

4. Economic challenges. The coverage of the online audience is incomparable with what could have been shown traditionally. Digital culture is more than mere commercial content (as stated by positions on the ‘cultural exception’ in trade) (BARRY, 2014), that is why it requires sound regulation anchored in well communicated principles and values. We hope that legislation and regulation will follow a set of principles and values adopted from pre-digital forms of economy such as ‘diversity of content’ and ‘fair competition’.

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